

Species of the Harpaline Selenophori Group (Coleoptera: Carabidae) from Asia

Noboru ITO

1–7–18 Higashiuneno, Kawanishi City, Hyôgo Pref., 666–0117 Japan

Abstract Seventeen new species of the genera *Oxycentrus* CHAUDOIR, *Coleolissus* BATES, *Hyphaereon* MACLEAY, *Hyparpalus* ALLUAUD and *Trichotichnus* MORAWITZ are described from Asia as following: *Oxycentrus taichishibatai* from Borneo, *O. cambodianicus* from Cambodia, *O. latus* and *O. subcylindratus* from Vietnam, *O. doiinthanonensis* from Thailand, *O. striatus* from Pakistan, *Hyphaereon chinensis* from Yunnan, *H. trusmadiensis* from Borneo, *H. planicollis* from Malaysia, and *H. platynoides* and *H. ocellaris* from Thailand, *Coleolissus (Tenuistilus) subcastaneus* from Borneo, *C. (T.) iridipennis* from Laos, *C. (T.) doisaketensis* from Thailand, *C. (T.) puncticollis* from Laos, *Hyparpalus pakistanensis* from Pakistan, and *Trichotichnus (Trichotichnus) trusmadiensis* from Borneo sp. nov. Also known species, male genitalia of *Hyphaereon borneensis* N. ITO, *Coleolissus (Tenuistilus) kiyoyamai* N. ITO and *C. (T.) nitidus* N. ITO are re-illustrated including structure of inner sac.

Many species of the Selenophori group in the tribe Harpalini have been known to have wide distributions in the Oriental region from the continental Asia to New Guinea, but their records are insufficient and mostly sporadic, and much more data upon systematics and distributions have been expected for their phylogenetics and zoogeography.

Present paper is prepared by courtesy of my colleagues in order to fill in the blank of knowledge by describing 17 new species and notes on the others upon many specimens from Pakistan, Vietnam, Laos, Cambodia, Thailand, China and Malaysia including Borneo. Some of species described here fulfill the blank regions between related species.

I would like to dedicate this small paper to the late Mr. Taichi SHIBATA, Nishinomiya, in my deep gratitude and regret, and a new name, *Oxycentrus taichishibatai*, is dedicated to him for his memory. When Mr. SHIBATA organized the Shin-Osaka Coleopterological Society (at the present, the Osaka Coleopterological Society), I became a member at the age of ten and influenced by him not only coleopterology but also on refinement of the level of my culture. His strong personality and kind introduction have been continuing

entomology as life work. Of course he was an excellent entomologist and many results were remained. Further, he was an excellent educator of entomology and brought up many young workers. Last year, he passed away in eighty years old. As soon as I was known the information for his critical condition at midnight, I hurried to the hospital. Unfortunately he already did not open his eyes again. Recalling many memories, I sat beside him for several hours. I felt deeply regrettable.

Before going further, I heartily thank Dr. Martin BAEHR of the Zoologische Staatssammlung, München, Dr. ALEŠ SMETANA and Yves BOUSQUET of the Agriculture Canada, Ottawa, Dr. Shun-Ichi UÉNO of the National Museum of Nature and Science, Tokyo, Dr. David W. WRASE, Berlin, Dr. Munetoshi MARUYAMA of the Kyushu University Museum, Fukuoka, Mr. Yuji KATAYAMA of Ehime University, Matsuyama, the late Mr. Hirofumi HAYAKAWA, MATSUMOTO and all members of the Osaka Coleopterological Society for their kindly offering important materials for my study.

Concerning measurement of body parts, see the author's former paper.

Abbreviation of depositories as following: Zoologische Staatssammlung, München as ZSSM, Agriculture Canada, Ottawa as ACO, the Osaka Museum of Natural History, Osaka as OMNH, the National Museum of Nature and Science, Tokyo as NMNS, and the author's collection as cNI

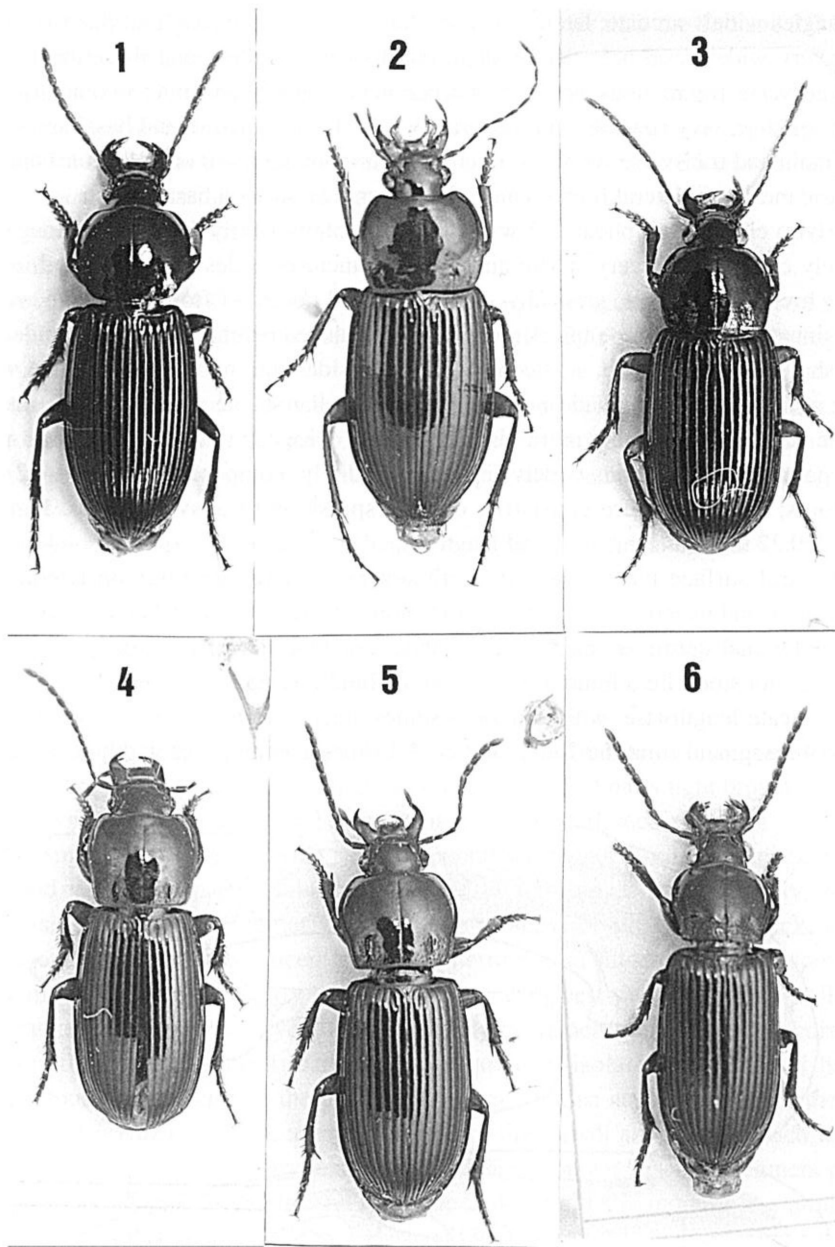
Oxycentrus (Oxycentropsis) taichishibatai N. ITO, sp. nov.

(Figs. 1 and 7)

Body elongate, parallel-sided, well convex, pitchy black, very shiny, with weakly iridescent lustre on elytra; labial and maxillary palpi light brown, antennae and legs dark brown.

Head small, 0.59 times as wide as the pronotal width, with wide interocular space 0.71 times width of head including eyes, microscopically and very sparsely punctate; labrum quadrate, very slightly bilobed at apex, shallowly depressed; clypeus thick, subtruncate at apex, with an unclear groove at each side; clypeal suture deeply and linearly engraved; frontal impressions strongly deepened and subarcuate towards supraorbital grooves; eyes not large and well prominent; temples short, 1/7 the eye length; genuine ventral margins of eyes rather widely separated from buccal fissure; labial palpi slender, 3rd segment 1/7 shorter than the 2nd; ligula narrow, weakly bilobed at apex; paraglossae narrowly fan-shaped, extending forwards a little beyond ligula; mentum with epilobes not widened apicad, median tooth regular-triangular; microsculpture barely visible, consisting of transverse meshes here and there.

Pronotum wholly arcuate at sides, widest at apical 2/5, 1.17 times as wide as long, uniformly elevated; sides not sinuate before base; apex shallowly emarginate, straight in middle, entirely bordered; base slightly wider than apex (1.06 in ratio), feebly emarginate in middle, weakly arcuate at sides, brokenly bordered; apical angles narrowly rounded;



Figs. 1-6. Habitus of species of the genus *Oxycentrus*. — 1, *Oxycentrus (Oxycentropsis) taichishibatai* sp. nov.; 2, *O. (Oxycentrus) latus* sp. nov.; 3, *O. (O.) cambodianicus* sp. nov.; 4, *O. (O.) subcylindratus* sp. nov.; 5, *O. (O.) doiinthanonensis* sp. nov.; 6, *O. (O.) striatus* sp. nov.

basal angles widely arcuate; lateral furrows shallow in a line throughout due to dorsal convexity very wide; basal area gently slant, basal foveae shallow and ill-defined; front and hind transverse impressions obsolete; surface very sparsely and microscopically punctate all over on disc, very sparsely and moderately so in lateral furrows and basal areas, centrally with thin and transverse wrinkles; microsculpture not observed on disc, consisting of isodiametric meshes in lateral furrows and of transverse meshes on basal areas.

Elytra elongate-elliptical, 1/7 wider than pronotum, nearly 1.7 times as long as wide, relatively convex, with very sparse and minute punctures; sides fairly rounded in humeri, slightly arcuate in middle, gradually strongly curved posteriad from apical 2/5, very shallowly sinuate before apices; apices more or less produced behind, narrowly rounded at tips; bases shallowly emarginate, so steeply oblique at sides that humeral angles are well produced; striae deep, clearly and finely crenulate, scutellar striole short; intervals rather convex, the convexity becoming more distinct towards apices and bases, 3rd interval with 3-4 discal pores; marginal series widely separated medially, composed of 8 + (11-12) umbilicate pores; microsculpture consisting of fine, sparse and transverse lines. Hind wings reduced, 0.22 times as long as elytral length.

Ventral surface mostly smooth, with several minute punctures on lateral areas of metasternum and metepisterna; metepisterna short, square, 1/6 wider than long; outer margin of 6th abdominal sternite in male widely rounded and blunt-angulate at tip, quadrisetose.

Legs not stout; hind femora bisetose along hind margin; fore tibiae gently dilated forwards, sulcate lengthwise, with two short spines apico-externally; mid tarsi with adhesive hairs to 4th segment from the 2nd, hind tarsi 1.1 times as long as the width of head, 1st seg-

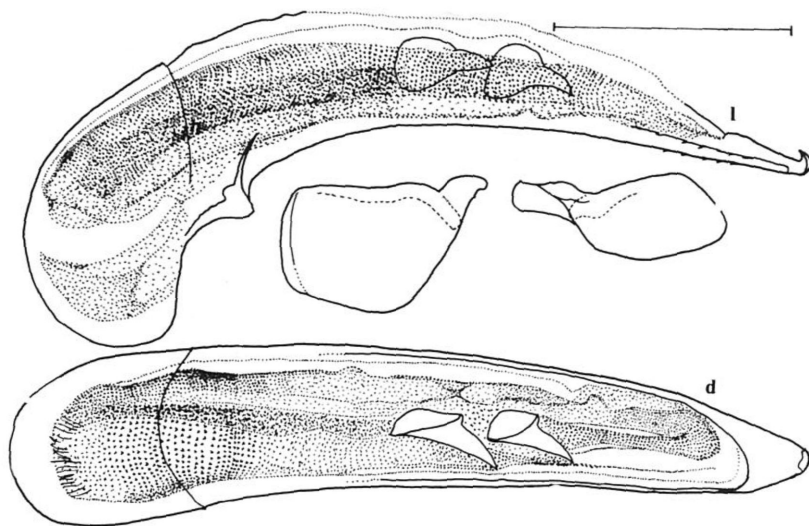


Fig. 7. Male genitalia of *Oxycentrus (Oxycentropsis) taichishibatai* sp. nov. — d, dorsal aspect; l, lateral aspect. Scale: 1 mm.

ment as long as the 2nd and 3rd taken together, 3rd 1/6 shorter than the 2nd and 2/3 longer than the 4th, claw segment bisetose along each margin of ventral side.

Aedeagus (Fig. 7) relatively large, almost straight, gradually thinned apicad, sharply hooked at tips; apical orifice widely open, inner sac armed with two large peg-shaped sclerites; apical lobe subtriangular, narrowly rounded at tip; ventral surface longitudinally concave, seriatly arranged with small teeth at each side.

Length: 10.9 mm. Width: 3.9 mm.

Female unknown.

Holotype: ♂, 5°34'44"N, 116°11'87"E, 35 km SE from Kota Kinabalu, alt. 1,650 m, Gn. Emas, Crocker Rge., Sabah, Borneo, Malaysia, 17. III. 2000, R. GERSTMEIER leg. (preserved in ZSSM).

Remarks: This new species is easily distinguished from known species of the genus by the pronotum fully arcuate at sides instead of not sinuate nor straight before base and the aedeagus relatively large comparing with body size and armed with distinctly large sclerites.

Etymology: The specific name is dedicated to the late Mr. Taichi SHIBATA.

***Oxycentrus (Oxycentrus) latus* N. ITO, sp. nov.**

(Figs. 2 and 8)

Body widely oblong, not elongate, weakly convex, pitchy black, shiny, weakly iridescent on pronotum and a little more strongly so on elytra: buccal parts light brown, antennae and legs brown, mandibles and lateral margins of pronotum dark reddish brown.

Head small, 0.56 times as wide as the pronotal width, not strong in convexity, very sparsely and vaguely punctate; labrum depressed though not concave dorsally, weakly arcuate at sides, widely triangularly emarginate at apex; clypeus rather thick, almost straight at apex; clypeal suture deep laterally, interrupted in middle; frontal impressions arcuately divergent behind, clearly engraved in apical halves, then gradually shallowed, reaching supraorbital grooves; eyes hemispherically prominent; temples very short, 1/10 the eye length; genuine ventral margin of eye narrowly isolated from buccal fissure; mandibles stout alike species of the genus *Coleolissus*, not so acute as those of the most other known *Oxycentrus*-species, arcuate just before tips, small and blunt at each terebral tooth; antennae slender, short, surpassing a little beyond pronotal base, 3rd segment pubescent in apical 2/3, as long as the 4th and twice the 2nd; labial palpi more or less tumid, 3rd segment as long as the 2nd; ligula feebly expanded forwards, subarcuate apically; paraglossae narrow, prolonged forwards beyond ligula, fused with it to just behind its apex; epilobes of mentum rather wide; microsculpture almost invisible when observed under 80× magnification.

Pronotum subquadrate, 1/3 wider than long, widest just behind middle, wholly arcuate at sides, a little more strongly convergent apicad than basad; apex obtapezoidally emar-

ginate, clearly bordered throughout; base 1.36 times as wide as apex, almost straight, feebly emarginate in middle, not bordered; apical angles fairly produced forwards, widely rounded; basal angles very obtuse, angularly rounded, and edentate at tips; lateral furrows narrow apically, abruptly widened basad from middle, fused with basal foveae, each of which is wide, flat, and with two or three small and weak humps; both front and hind transverse impressions obsolete; median line thin and clear, reduced near apex and base; dorsal surface widely impunctate, minutely and sparsely punctate in lateral furrows and basal foveae; microsculpture obscure, partly visible as transverse meshes.

Elytra elliptical, 1.18 times as wide as the pronotal width, a half longer than wide, almost flat, without punctures; sides weakly arcuate in humeri, subparallel in middle, then gradually curved apicad; apices subtruncate, narrowly separated from each other, blunt at sutural angles; bases gently emarginate, humeral angles obtuse, acute and with tiny tooth; striae wide and deep, scutellar striole moderate in length; intervals not raised, 3rd interval with a series of 7 or 8 setiferous pores along 2nd stria; microsculpture invisible; marginal series continuous, though rather wide in space among umbilicate pores in middle, consisting of 25–26 pores. Hind wings entirely developed.

Ventral surface vaguely punctate on prosternum and prepisterna, coarsely and rather densely so on mesepisterna, and sparsely so on metepisterna and lateral portions of metasternum; metepisterna not elongate, 1/4 longer than wide; 6th abdominal sternite of ♂ bisetose at each side and clearly rounded at apical margin.

Legs short; hind femora bisetose behind; fore tibia thick, feebly dilated apicad, uni- or bispinous at apico-external angle, weakly sulcate in basal half and effaced in apical half; hind tarsi 1.14 times as long as the width of head, 1st segment 1/9 longer than the 2nd and 3rd taken together and twice the 2nd, 3rd 1.44 times as long as the 4th, claw segment trisetose along external margin of and bisetose along inner one of ventral surface.

Aedeagus (Fig. 8) in lateral view, well thin, very weakly curved, shallowly emarginate before middle and arcuate apicad behind middle dorsally, constricted apically, with obliquely thin knob-shaped tip; apical orifice widely occupying, inner sac armed without any sclerotized spines, though with a linear cluster of compact and elongate microtrichia; apical orifice twisted to right, elongate, rounded at distal margin; ventral surface deeply concave basad from middle, steeply ridged at sides.

Female unknown.

Length: 9.6 mm. Width: 3.8 mm.

Holotype: ♂, Mt. Tam Dao, alt. 960 m, Viah Phu Prov., 25. IX. 1994, S. UÉNO leg. (preserved in NMNS).

Remarks: This new species is similar to *Oxycentrus* (*Oxycentrus*) *latemarginatus* N. ITO from Laos, but is easily distinguished from the latter by the mandibles more weakly arcuate and not acute at tips, the pronotum wider at lateral furrows and more narrowly rounded at basal angles, and the elytra each with discal pores on 3rd interval larger in number.

Etymology: The specific name is derived from wide (= *latus* in Latin) body.

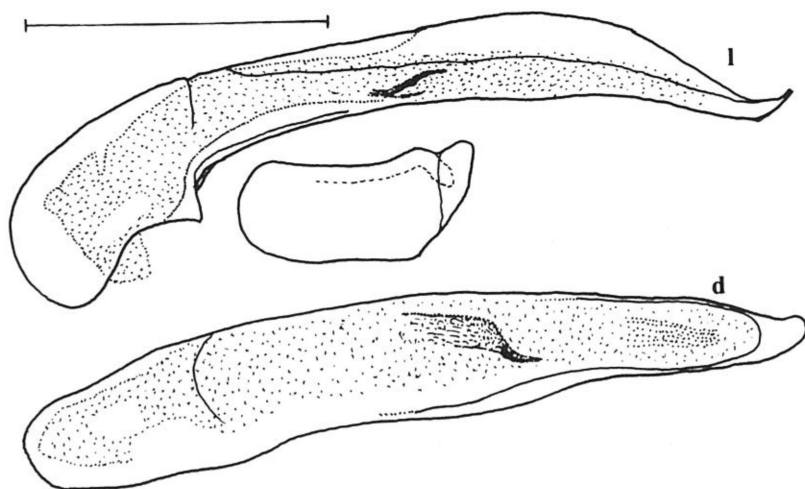


Fig. 8. Male genitalia of *Oxycentrus (Oxycentrus) latus* sp. nov. — d, dorsal aspect; l, lateral aspect. Scale: 1 mm.

Oxycentrus (Oxycentrus) cambodianicus N. ITO, sp. nov.

(Figs. 3 and 9)

Body relatively widely oblong, pitchy black, shiny, weakly iridescent on elytra; labial and maxillary palpi light brown, antennae and legs dark brown, labrum and mandibles slightly brownish black.

Head weakly convex, relatively small, 0.61–0.62 times as wide as the pronotal width, very sparsely and microscopically punctate; labrum transversely quadrate, slightly depressed; clypeus shallowly emarginate at apex, rather widely grooved near sides; clypeal suture linearly and clearly carved; frontal impressions deep throughout, reaching supraorbital grooves; eyes large and hemispherical; temples very short, steeply contracted behind; genuine ventral margins of eyes adjoining buccal fissure; labial palpi massive, 3rd segment comparatively long, about 1/5 longer than the 2nd; ligula gently widened apicad, truncate at apex; paraglossae wide, narrow near apices; mentum with sharp regular-triangular, epilobes expanded forwards; microsculpture largely invisible, observed as vague transverse meshes here and there.

Pronotum quadrate, gently convex, flattened on disc, widest a little behind apical two-fifths, 1.28–1.30 times as wide as long; sides weakly arcuate from apex to the widest point, thence linearly and gently oblique to base, not sinuate prebasally; apex weakly shallowly emarginate, with clear and entire border; base 2/5 wider than apex, barely bisinuate, thinly and clearly bordered throughout; apical angles weakly protruding forwards, rather widely

arcuate; basal angles a little larger than right angle, narrowly rounded; lateral furrows narrow in apical half, thence gradually widened basad, fused with basal foveae which are large and shallow; front and hind transverse impressions very shallow; median line fine though clear, shallowed near apex and base; surface largely not punctate, moderately and somewhat coarsely punctate in basal half of lateral furrows and basal foveae; microsculpture partly and weakly visible as transverse meshes.

Elytra rather widely oblong, fairly convex, nearly 1/4 wider than the pronotal width, 1.55–1.62 times as long as wide, without any punctures; sides weakly arcuate in humeri, subparallel in middle, rather abruptly curved apicad from apical 3rd, very shallowly sinuate before apices; apices not produced posteriad, narrowly rounded at tips, slightly separated to each other; bases gently emarginate, obtuse and sharp at humeral angles; striae wide and with clear crenulation, scutellar striole short; intervals flat on disc and gradually elevated apicad and basad, 3rd interval with a series of 2–3 setiferous pores; marginal series divided into two groups by a wide space, fore group consisting of 8 umbilicate pores and hind one of 8–9 pores; microsculpture vaguely observable as transverse lines. Hind wings entire.

Ventral surface mostly smooth, indistinctly punctate on mesepisterna; metepisterna elongate, 3/5 longer than wide; 6th abdominal sternite of male quadrisetose at outer margin, widely and weakly arcuate between two inner setae.

Legs relatively long; fore tibiae fairly dilated apicad, bi- or trisetose along apico-external margin, sulcate to just behind apex; mid tarsi with biseriate adhesive squamae from 2nd to 4th segments, hind tarsi 1/10 longer than the width of head, 1st segment 1/9 longer than the 2nd and 3rd taken together, 2nd 1/4 longer than the 3rd and twice the 4th, claw segment bisetose along each ventral margin.

Aedeagus (Fig. 9) weakly arcuate, gradually thinned forwards from middle, thickened at tip which is slightly hooked obliquo-dorsad; apical orifice widely open, inner sac armed with three series of peg-shaped sclerites, one situated in basal half, the remaining two parallel in apical half.

Female unknown.

Length: 7.0–8.1 mm. Width: 3.0–3.3 mm.

Holotype: ♂, Tatai river, 11°34'N, 103°07'E, alt. 50–300 m, 20 km SE from Koh Kong, SW Cambodia, 3–19. V. 2005, E. JENDEK and O. ŠAUŠA leg. (preserved in OMNH). Paratypes: 8 ♂♂, same data as the holotype (preserved in cNI).

Remarks: This new species is allied to *Oxycentrus persimilis* N. ITO from Laos, but the pronotum is wider, a little more rounded at basal angles, more minutely and sparsely punctate and more vaguely microsculptured, the elytra are wider and a little more ovate, and the aedeagus bears sclerites more elongate and larger in number.

Etymology: This species is named after the country of the type locality, Cambodia.

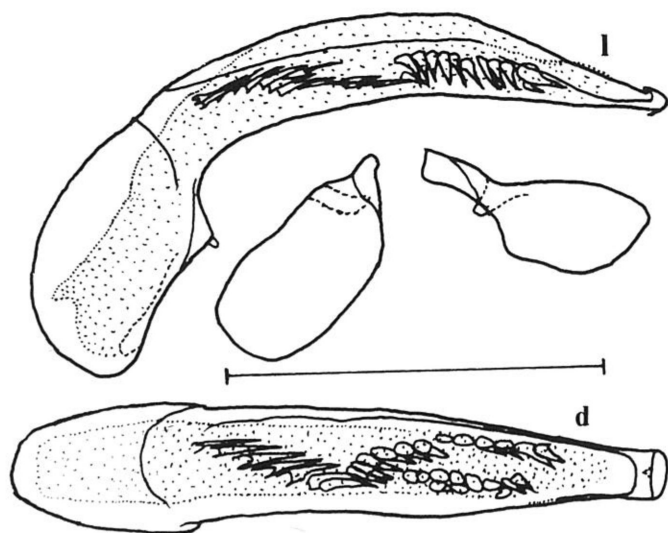


Fig. 9. Male genitalia of *Oxycentrus (Oxycentrus) cambodianicus* sp. nov. — d, dorsal aspect; l, lateral aspect. Scale: 1 mm.

Oxycentrus (Oxycentrus) subcylindratus N. ITO, sp. nov.

(Figs. 4 and 10)

Body convex, subcylindrical, black, shiny, without iridescent lustre on surface; maxillary palpi, antennae, and legs reddish brown, mandibles and labrum slightly brownish black.

Head moderate in width (0.64 times the pronotal width), well convex, with wide interocular space which is $\frac{3}{4}$ as wide as the width of head, sparsely and minutely punctate; labrum flat, transversely quadrate; clypeus swollen, straight at apex, with a deep longitudinal sulcus joined to each frontal impression at each side; clypeal suture clearly impressed and emarginate; frontal impressions each arcuately oblique, deep in apical half though abruptly shallowed near supraorbital groove; eyes small, fairly prominent; temples each linearly convergent behind, $\frac{2}{5}$ the eye length; genuine ventral margins of eyes narrowly separated from buccal fissure; labial palpi missing; ligula narrow, weakly expanded forwards, tapered at each corner of apex; paraglossae narrowly prolonged forwards beyond ligular apex; mentum with epilobes widened apicad, mental tooth regular-triangular; microsculpture rather clear, consisting of square meshes.

Pronotum subquadrate, widest a little before apical $\frac{2}{5}$, 1.16 times as wide as long, widely and fully convex; sides weakly arcuate to widest point from apex, thence gently oblique to base, feebly sinuate before base; apex obtusely emarginate, entirely and

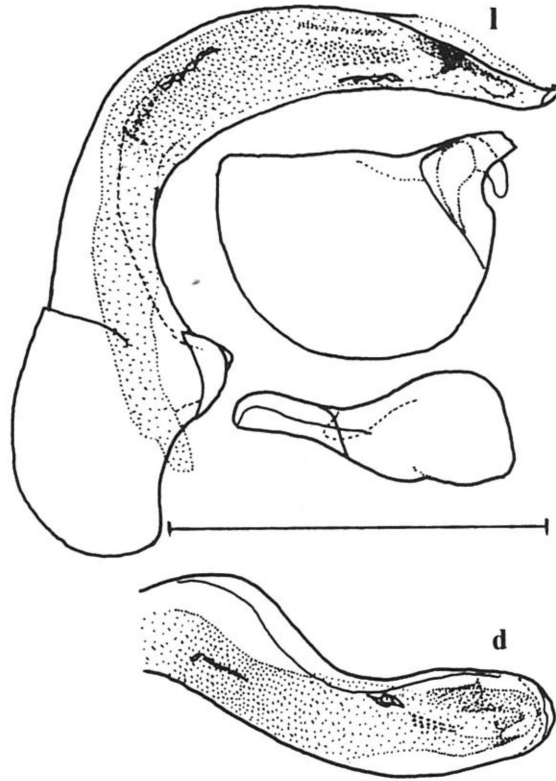


Fig. 10. Male genitalia of *Oxycentrus (Oxycentrus) subcylindratus* sp. nov. — d, dorsal aspect; l, lateral aspect. Scale: 1 mm.

clearly bordered; base 1/10 wider than apex, slightly arcuate, with clear border; apical angles well protruding, narrowly rounded; basal angles a little obtuse, widely rounded; lateral furrows each wholly narrow in a line, separated from oblong basal foveae by a hump; front and hind transverse impressions obsolete; median line reduced a little behind apical border; surface microscopically and sparsely punctate on large areas, sparsely so in lateral furrows, sparsely and coarsely so in baso-lateral areas, densely and coarsely so in basal foveae.

Elytra elongate-oblong, 1.15 times as wide as pronotum, 2/3 longer than wide, uniformly convex, very sparsely and microscopically punctate; sides weakly sinuate in humeri, weakly arcuate in middle, fairly curved behind from apical 4th, shallowly sinuate before apices; apices weakly and widely rounded, not separated, sharp at sutural angles; bases almost straight, acutely toothed at each end; striae wide, moderate in depth, clearly crenu-

late, scutellar striole lacking; intervals almost flat on disc, becoming a little convex apicad and basad, 3rd interval without any discal pores; marginal series widely interrupted medially, composed of (7–8) + (8–9) umbilicate pores; surface transversely microlined. Hind wings vestigial.

Ventral surface mostly impunctate, very sparsely punctate on metepisterna; metepisterna convergent behind, 1/10 longer than wide; 6th abdominal sternite in male widely and gently rounded at distal margin, bisetose at each side.

Legs short and stout; hind femur bisetose; fore tibiae fairly expanded apicad, sulcate lengthwise, arranged with three robust spines along apico-external margin; fore tarsi comparatively wider than usual, 1st segment of mid tarsus not bearing any adhesive hairs, hind tarsi 1/10 shorter than the width of head, 1st segment equal in length to the 2nd and 3rd taken together, 3rd 3/4 the 2nd and 1/7 longer than 4th, claw segment trisetose along inner margin of and unisetous along outer margin of ventral side.

Aedeagus (Fig. 10) strongly arcuate, slightly reflexed at apex and hooked at tip in lateral aspect, and clearly sinuate in dorsal aspect; inner sac widely opened, armed with two clusters of seriate-arranged small spines, one situated before middle and another at curving area; apical lobe thin, rounded at distal margin. Parameres relatively large.

Length: 7.7 mm. Width: 3.0 mm.

Female unknown.

Holotype: ♂, Mt. Tan Vien, Ha Tay Prov., North Vietnam, 15. X. 1995, S. NOMURA leg. (preserved in NMNS).

Remarks: This new species is peculiar in sinuate shape of aedeagus and absence of discal pore on elytra and distinguished from other known species of the genus by the peculiarity.

Etymology: The specific name is derived from a little (= sub) cylindrical (= cylindratu) body in Latin.

Oxycentrus (Oxycentrus) doiinthanonensis N. ITO, sp. nov.

(Figs. 5 and 11)

Body somewhat widely oblong, convex, not iridescent on elytra; labial and maxillary palpi, antennae and legs reddish brown, mandibles and labrum dark reddish brown.

Head small, 3/5 the pronotal width, moderately convex, very sparsely and minutely punctate; labrum transversely trapezoidal, with a transversely elliptic fovea; clypeus thick, very shallowly emarginate at apex, with shallow groove at each side; clypeal suture straight, deeply carved; frontal impressions also deep, weakly arcuately divergent; eyes rather large and gently prominent; temples short, 1/5 the eye length; space between buccal fissure and genuine ventral margin of eyes very narrow; labial palpi somewhat tumid, 3rd segment 1.15 times as long as the 2nd; ligula wide, abruptly contracted backwards, with truncate apex; paraglossae narrow, arcuate at outer margins; mentum with obtriangular epi-lobes, median tooth rounded at tip; microsculpture vague, visible only near clypeal apex as

transverse meshes.

Pronotum similar in shape to the former new species, *O. subcylindratus*, subquadrate, widest a little behind apical third, 1/5 wider than long, widely convex; sides gently arcuate in apical half, oblique in the remaining part, barely sinuate before base; apex shallowly emarginate, straight on the bottom, entirely bordered; base 1/5 wider than apex, slightly arcuate, clearly bordered throughout; apical angles weakly prominent, widely rounded; basal angles a little larger than right angle, sharp at tips; lateral furrows impressed in a line; basal foveae isolated from the furrows by weak humps, longitudinally oblong; front and hind transverse impressions vestigial; median line clearly engraved, extending just behind apex; dorsal punctures largely absent, coarse in lateral furrows, coarser in basal areas, and partly confluent in basal foveae; microsculpture partly and obscurely visible as transverse meshes.

Elytra subparallel-sided, 1/10 wider than pronotum, 1.61 times as long as wide, uniformly convex; sides weakly rounded in humeri, gradually strongly arcuate apicad from apical 3rd, with shallow sinus; apices weakly produced, widely rounded, angulate at sutural angles; bases weakly obliquely straight throughout; striae wide, deep, and clearly crenulate, scutellar striole short; intervals weakly convex on disc, becoming more convex apicad and basad, 3rd interval with single discal pore between apical 4th and 5th; marginal series widely interrupted in middle, consisting of 8 + 11 umbilicate pores; microsculpture vague, visible as transverse lines. Hind wings reduced.

Ventral surface mostly smooth, sparsely and vaguely punctate on prepisterna, partly, clearly and sparsely so on lateral areas of metasternum and metepisterna; metepisterna elongate, 1.44 times as long as wide; apical margin of 6th abdominal sternite widely rounded and quadrisetose.

Legs short; hind femora bisetose along hind margin; fore tibiae each thickened, quadrispinous along apico-external margin, with an entire sulcus; mid tarsi ventrally armed with biseriate adhesive hairs on 2nd to 4th segments, hind tarsi a little shorter than the width of head (0.86 in ratio), 1st segment 0.88 times as long as the 2nd and 3rd taken together, 2nd 1/4 longer than the 3rd which is 1.38 times as long as the 4, claw segment bisetose along outer margin and unisetous along inner margin of ventral surface.

Aedeagus (Fig. 11) weakly arcuate, hooked at tip; apical orifice wide, inner sac armed with three clusters of elongate conical sclerites, besides near apex and middle, respectively; apical orifice widely arcuate at distal margin, three-fifths wider than long, with thick border.

Length: 7.9 mm. Width: 3.0 mm.

Female unknown.

Holotype: ♂, Doi Inthanon, Maeo Khun Klang, alt. 1,290 m, Chiang Mai, Thailand, 15. X. 1983, M. SAKAI leg. (preserved in NMNS). Paratype: 1 ♂, same area as for the holotype, alt. 2,440 m, 21. X. 1983, Y. NISHIKAWA leg.

Remarks: This new species resembles *Oxycentrus (Oxycentrus) persimilis* N. ITO from Laos, but the eyes are less convex, the pronotum is weakly constricted before base instead of weakly arcuately so, and the elytra each bears only single discal pore.

Etymology: The specific name is derived from the type locality, Doi Inthanon.

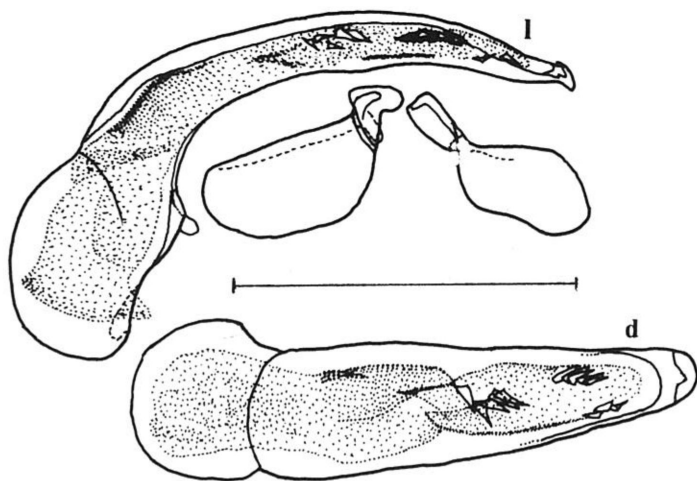


Fig. 11. Male genitalia of *Oxycentrus (Oxycentrus) dointhanonensis* sp. nov. — d, dorsal aspect; l, lateral aspect. Scale: 1 mm.

Oxycentrus (Oxycentrus) striatus N. ITO, sp. nov.

(Figs. 6 and 12)

Body elongate, parallel-sided, similar in outline to *Oxycentrus melas* (SCHMIDT-GÖBEL), black, barely iridescent on elytra; buccal parts, antennae and legs brown, mandible dark brown, tibiae and femora slightly brownish black.

Head large, 0.71 times as wide as the pronotal width, $\frac{2}{3}$ the width of head in interocular space, gently elevated, sparsely and microscopically punctate, transversely coarsened near frontal impressions; labrum weakly biarcuate at apex; clypeus thick, triangularly produced at each apical corner, with two or three deep-longitudinal grooves at each side; clypeal suture straight, clearly impressed; frontal impressions each so deep that triangular space between the suture and impression seems to be well convex, arcuately running to supraorbital grooves; eyes hemispherically prominent; temples short, less than $\frac{1}{10}$ the eye length; genuine ventral margins of eyes adjoining buccal fissure; antennae moniliform, 3rd segment pubescent in apical $\frac{3}{4}$, a half longer than the 2nd, and as long as the 4th; mandibles clearly arcuate, not sharp at tips; 3rd segment of labial palpi massive, $\frac{1}{4}$ longer than the 4th; ligula narrow, weakly expanded towards rounded apex; paraglossae narrow, surpassing a little beyond ligula; mentum sharply elongate-toothed at apex, epilobes gently widened forwards; microsculpture mostly invisible, visible as vague transverse meshes near neck constriction.

Pronotum weakly cordate, moderately convex, 1.17 times as wide as long; sides thickly bordered, gently arcuate in front, linearly oblique behind middle, more or less deeply sinuate before base; apex also with thick border, not emarginate; base 1/5 wider than apex, feebly biarcuate, brokenly bordered; lateral furrows each narrow in a line, fallen into basal fovea which is rounded, large and occupies 3/4 of basal area; front transverse impression long, the hind one vague; median line reaching both apex and base, wholly deeply engraved; surface bearing several transverse wrinkles on disc, largely smooth, coarsely and sparsely punctate in lateral furrows and apical area of median line, coarsely and densely so on basal area including of median line; microsculpture visible as transverse obscure meshes on disc and as mixtures of clearer transverse and square meshes in lateral furrows and basal area.

Elytra elongate-oblong, 1.73 times as long as wide, 1/5 wider than pronotum, rather convex; sides arcuate in humeri, parallel in middle, clearly curved in apical 4th, shallowly sinuate; apices more or less produced, widely rounded, acute at sutural angles; bases very shallowly emarginate, with very obtuse and sharp humeral angles; striae very deep, seriatel-y punctate, and finely and clearly crenulate, scutellar striole very short; intervals fully convex throughout, 3rd interval with a series of 8 setiferous pores; marginal series continuous, thought wide in space between neighbouring pores, consisting of 24–25 umbilicate pores; microsculpture clearly visible, consisting of tight transverse lines. Hind wings entirely developed.

Ventral surface coarsely punctate on basal area of prosternum, mesosternum, meso- and metepisterna, and lateral areas of metasternum; metepisterna steeply convergent behind, twice as long as wide; 6th abdominal sternite quadrisetose at outer margin and widely rounded between the inner two setae.

Legs short; hind femora bisetose along hind margin; fore tibiae each well dilated forwards, entirely sulcate, with four short spines along apico-external margin; hind tarsi short, 0.83 times as long as the width of head, 1st segment 1/7 shorter than the 2nd and 3rd taken together, 2nd 1/7 longer than the 3rd and 3/5 longer than the 4th, claw segment trisetose along inner margin and bisetose along outer margin of ventral surface.

Aedeagus (Fig. 12) gently arcuate, gradually thinned apicad from middle, sharply hooked at tip; apical orifice wide, inner sac armed with two clusters of small conical sclerites, one near apex consisting of three spines and another near middle consisting of microtrichia-like sclerites.

Length: 8.1 mm. Width: 2.9 mm.

Female unknown.

Holotype: ♂, 70 km S of Lahores, Changa Manga Forest, Punjab Prov., E Pakistan, 19–21. VIII. 1998, L. ČIŽEK & L. ČERNÝ leg. (OMNH).

Remarks: This new species is similar to *Oxycentrus (Oxycentrus) melas* (SCHMIDT-GÖBEL), but is distinguished from the latter by the pronotum more thickly bordered at sides, the elytra more clearly microsculptured, not smooth but seriatel-y punctate in striae

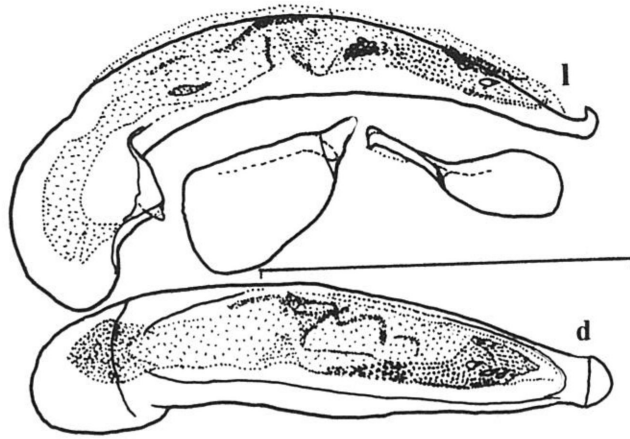


Fig. 12. Male genitalia of *Oxycentrus (Oxycentrus) striatus* sp. nov. — d, dorsal aspect; l, lateral aspect. Scale: 1 mm.

and with marginal series not interrupted, and the aedeagus much smaller in number of sclerites on inner sac.

Etymology: The specific name “*striatus*” is derived from deep striae of elytra.

***Hyphaereon chinensis* N. ITO, sp. nov.**

(Figs. 13 and 19)

Body suboval, similar in shape to *Hyphaereon laosensis* N. ITO from Laos, flattened, black, shiny, with weak iridescent lustre on pronotum and clearer one on elytra: buccal parts, antennae, lateral areas of pronotum and legs light brown, mandibles brown.

Head relatively small, 0.61 times as wide as the pronotal width, weakly elevated on frons, very sparsely and minutely punctate, with narrow interocular space $\frac{3}{5}$ the width of head including eyes; labrum subsquare, truncate at apex; clypeus shallowly emarginate apically, slightly raised centrally; clypeal suture effaced though visible in middle, frontal impressions more weakly carved than those of *C. laosensis*, moderate in depth near apex, obliterated behind from middle, invisible near supraorbital grooves; eyes large and semi-spherical, though a little more weakly prominent than those of *C. laosensis*; temples short, $\frac{1}{6}$ the eye length; genuine ventral margins of eyes adjoining buccal fissure; mandibles same alike those of *C. laosensis*, robust, pointed at tips; antennae slender, moderate in length and with apical two segments reaching elytra, 3rd segment pubescent in apical half and 1.86 times as long as the 2nd; labial palpi more or less massive, apical segment as long

as penultimate one; ligula wedge-shaped, slightly arcuate at apex; paraglossae fused with ligula to near its apex, narrow, prolonged forwards beyond it; mentum widely triangularly and not strongly produced at apex, epilobes abruptly widened apicad; microsculpture partly visible, composed of isodiametric meshes on clypeus and of vague transverse meshes on remaining areas.

Pronotum transverse, 1.41 times as wide as long, gently convex; sides clearly arcuate in front and obliquely straight behind from middle, not sinuate before base; apex rather deeply emarginate, straight in middle, entirely bordered; base 1/3 wider than apex, hardly bisinuate, clearly bordered throughout; apical angles widely rounded; basal angles a little larger than right angle, angulate at tips; lateral furrows gradually widened posteriad from apex, fused with basal foveae, each of which is transversely subquadrate and oblong-concave in inner side; front transverse impression short and shallow, the hind one obsolete; median line clearly but thinly engraved, reduced near apex and base; dorsal surface smooth narrowly on central portion, sparsely and moderately punctate in apical area, sparsely and coarsely so in lateral furrows, densely and coarsely so in basal foveae, whose punctures are spread over and become more minute forwards; microsculpture centrally absent, visible as isodiametric meshes around punctures in lateral furrows and basal foveae.

Elytra oblong-oval, approximately a half longer than wide, 1.21 times as wide as the pronotal width, flat, impunctate; sides gently arcuate in humeri, shallowly sinuate before apices; apices narrowly rounded; bases slightly emarginate, not sharpened at humeral angles; striae wide and deep, scutellar striole long; intervals flat on disc, slightly elevated apicad and basad, 3rd interval possessing a series of 7 setiferous pores; marginal series interrupted in middle, consisting of 9 + 10 umbilicate pores; microsculpture invisible under 80× magnification.

Ventral surface mostly smooth, vaguely and very sparsely punctate on lateral portions of metasternum and metepisterna; metepisterna not so elongate as usual, 1/4 longer than wide; 6th abdominal sternite unisetous at each side and notched at middle of apical margin.

Legs long; hind femora bisetose behind; tarsi long, hind tarsi 1/5 longer than the width of head, 1st segment equal in length to the 2nd and 3rd combined, 2nd 1.13 times as long as the 3rd and twice the 4th, claw segment bisetose along external margin and bi- or trisetose along the inner one of ventral surface.

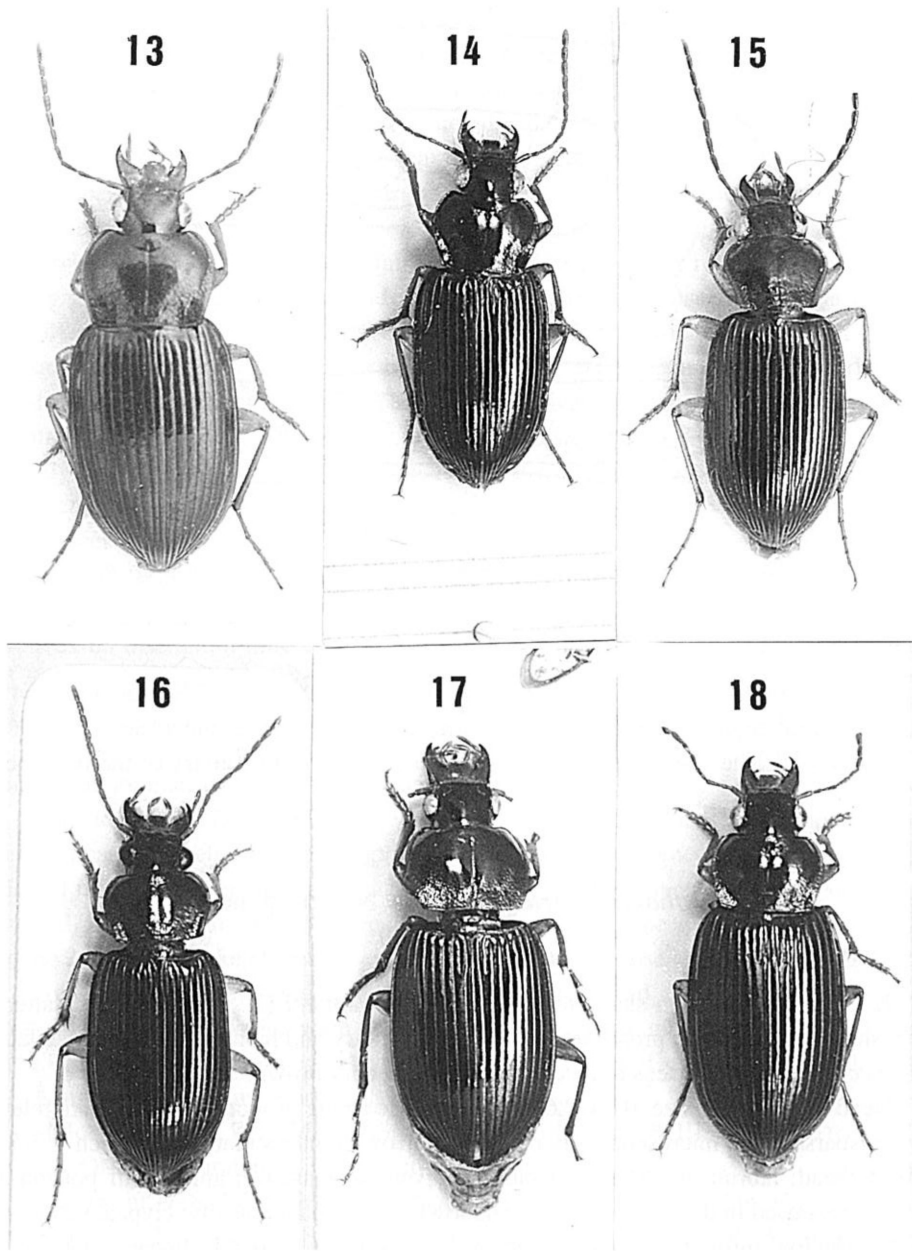
Aedeagus (Fig. 19) elongate, similar in outline to *H. laosensis*, almost linearly prolonged apicad, thinned and slightly sinuate at apex; apical orifice elongate, inner sac armed with a small conical sclerite near apex, while in *H. laosensis* the sac bears much more sclerites; apical lobe subtrapezoidal, weakly rounded at distal margin.

Length: 8.3 mm. Width: 3.5 mm.

Female unknown.

Holotype: ♂, Gaoligong Mts., alt. 1,500–2,500 m, 25°22'N, 98°49'E, Yunnan, China, 17–24. V. 1995, O. SEMELA leg. (preserved in OMNH).

Remarks: This new species is allied to *Hyphaereon shibatai* (N. ITO) from Taiwan,



Figs.13–18. Habitus of species of the genera *Hyphaereon* and *Coleolissus*. — 13, *Hyphaereon chinensis* sp. nov.; 14, *H. trusmadiensis* sp. nov.; 15, *H. platynoides* sp. nov.; 16, *H. ocularis* sp. nov.; 17, *Coleolissus* (*Tenuistilus*) *iridipennis* sp. nov.; 18, *C. (T.) subcastaneus* sp. nov.

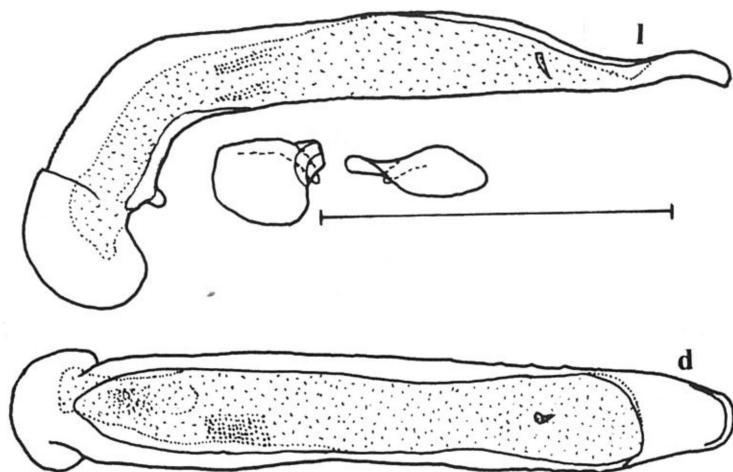


Fig. 19. Male genitalia of *Hyphaereon chinensis* sp. nov. — d, dorsal aspect; l, lateral aspect. Scale: 1 mm.

but the eyes are more prominent, the pronotum is not arcuate in basal half at sides and not rounded at basal angles, and the aedeagus is armed with a sclerite in inner sac.

Etymology: The specific name "*chinensis*" is derived from country of the type locality, China.

***Hyphaereon trusmadiensis* N. ITO, sp. nov.**

(Figs. 14 and 20)

Body oval, similar in shape to *Hyphaereon masumotoi* (N. ITO), suboval, flattened, black, shiny, iridescent on pronotum and elytra; maxillary and labial palpi, antennae, lateral margins of pronotum and legs reddish brown, labrum dark brown.

Head moderate in size, 0.66–0.68 times as wide as the pronotal width, weakly elevated, very sparsely and microscopically punctate, narrow at interocular space which is $\frac{3}{5}$ the width of head; labrum weakly trapezoidal; clypeus depressed in apical half portion and more or less raised in the remaining one, shallowly emarginate apically; clypeal suture very fine and shallow throughout; frontal impressions moderate in depth, linearly oblique and reaching supraorbital grooves; eyes large and hemispherical; temples steeply sloped, very short, $\frac{1}{9}$ the eye length; genuine ventral margins of eyes adjoining buccal fissure; antennae slender, 3rd segment pubescent in apical half, as long as the 4th, and twice the 2nd; labial palpi somewhat voluminous, 3rd segment as long as the 2nd; ligula wedge-shaped, gently

arcuate at apex; mentum with median tooth rather wide, epilobes moderately widened apicad; microsculpture vaguely impressed, partly visible as transverse meshes.

Pronotum subquadrate, widest a little before apical $2/5$, 1.45 times as wide as long, flattened on disc, weakly declivous apico-laterad; sides clearly arcuate from apex to middle, thence linearly oblique basad, reflexed near base, without prebasal sinus; apex rather deeply and obtusely emarginate, entirely bordered; base $1/10$ wider than apex, almost straight, feebly arcuate at sides, with border thinned in middle; apical angles protruding forwards, widely rounded; basal angles fairly larger than right angle, roundly angulate; lateral furrows gradually widened posteriad from apex, fallen into basal foveae; basal foveae rather deep, rounded though ill-defined; front transverse impressions wide and shallow, the hind one obliterated; surface mostly impunctate, sparsely punctate in lateral furrows and basal foveae where the punctures are partly coarse; microsculpture barely and partly visible as transverse meshes.

Elytra flat on disc, elliptical, $1/5$ wider than the pronotal width, $2/3$ longer than wide, not punctate; sides gently curved in humeri, subarcuate in middle, with shallow preapical sinus; apices more or less produced behind, weakly rounded, not separated to each other and sharp at sutural angles; bases shallowly emarginate, gently protrudent at humeral angles; striae widely impressed and clearly crenulate, scutellar striole long; intervals slightly convex on disc and a little more convex apicad and basad, 3rd interval with a series of 5–6 setiferous pores along 2nd stria; marginal series 20–22 umbilicate pores; microsculpture very vague, consisting of transverse lines. Hind wings fully developed.

Ventral surface impunctate; metepisterna convergent behind, 1.36 times as long as wide; 6th abdominal sternite of male notched at apex and with a single seta at each side.

Legs long; hind femora bisetose along hind margin; fore tibiae weakly dilated apicad, clearly sulcate just behind apex, unispinous at apico-external corner; tarsi long and slender, mid tarsi in male bearing biseriate squamae ventrally to 4th segment from the 1st, hind tarsi in male $1/4$ longer than and in female as long as the width of head, 1st segment $1/7$ shorter than the 2nd and 3rd taken together, claw segment bi- or trisetose along each ventral margin.

Aedeagus (Fig. 20) slender, almost straightly prolonged distad, thinned and weakly sinuate at apex; apical orifice wide, inner sac armed with two clusters of sclerites in apical $2/5$ to $3/5$, one composed of peg-shaped sclerites and another of spindle-shaped sclerites.

Length: 7.3–8.4 mm. Width: 3.1–3.4 mm.

Holotype: ♂, Mt. Trus Madi, Borneo, E. Malaysia, 24–28. III. 1998, T. ITO leg. (preserved in OMNH). Paratypes: 3 ♂♂, same data as the holotype; 2 ♂♂, 3 ♀♀, same locality, alt. 1,300 m, 7–8. IV. 1996, N. YUZAWA leg. (through the late Mr. HAYAKAWA, preserved in cNI); 2 ♂♂, Kuala Belalong, Tembrong, Brunei, Borneo, R. BORCHERDING leg. (through Dr. D. W. WRASE).

Remarks: This new species resembles *Hyphaereon masumotoi* (N. ITO), but the pronotum is much more sparsely and narrowly punctate and more obtuse at basal angles and the aedeagus is armed with sclerites larger in number on inner sac.

Etymology: The species is named after the type locality, Mt. Trus Madi.

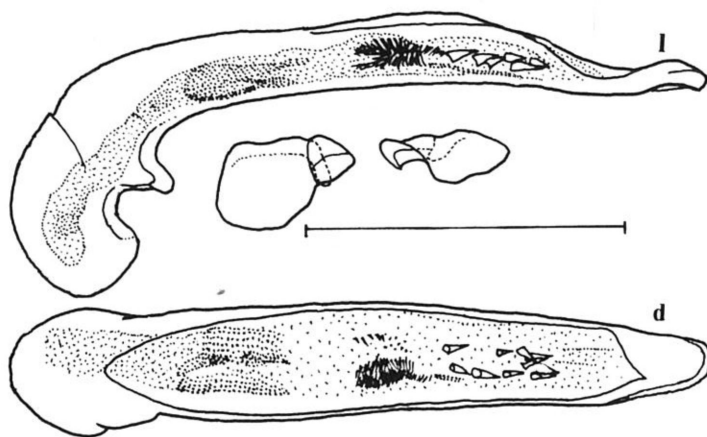


Fig. 20. Male genitalia of *Hyphaereon trusmadiensis* sp. nov. — d, dorsal aspect; l, lateral aspect. Scale: 1 mm.

Hyphaereon planicollis N. ITO, sp. nov.

(Fig. 21)

This new species resembles *Hyphaereon masumotoi* (N. ITO), but the pronotum is more sparsely and minutely punctate, wider in lateral furrows and not sharp at basal angles, the hind tarsi are longer, and the aedeagus bears much more sclerites on inner sac. The species is allied to the former new species, *Hyphaereon trusmadiensis*, but is distinguished from the latter by the pronotum more densely punctate, more flattened in basal area and not entirely bordered at base, and the aedeagus not armed with a cluster of spindle-shaped sclerites and larger in number of peg-shaped sclerites.

Body oblong-oval, flattened, black, shiny, iridescent on elytra; antennae and legs yellowish brown, labial and maxillary palpi a little darker than antennae, labrum and mandibles dark reddish brown. Head a little small, 0.63 times as wide as the pronotal width; surface, clypeus, clypeal suture, frontal impressions, eyes and ventral surface in the same manner as *H. masumotoi*. Pronotum transversely subquadrate, nearly a half wider than long, flattened on disc, weakly declivous apico-laterad; sides straight and not sinuate before base, slightly reflexed near base; apex entirely bordered; base 1.16 times as wide as apex, brokenly bordered; basal angles fairly obtuse and angularly rounded; microsculpture clearly impressed as transverse meshes on disc and subsquare ones in basal foveae. Elytra similar in shape and convexity to *H. masumotoi*; 3rd interval bearing a series of 5–7 setiferous pores; marginal series interrupted medially, composed of (9–10) + (10–11) umbilicate pores; microsculpture vaguely visible as transverse lines. Hind wings developed.

Metepisterna 1/3 longer than wide. Sixth abdominal sternite of male unisetous at each

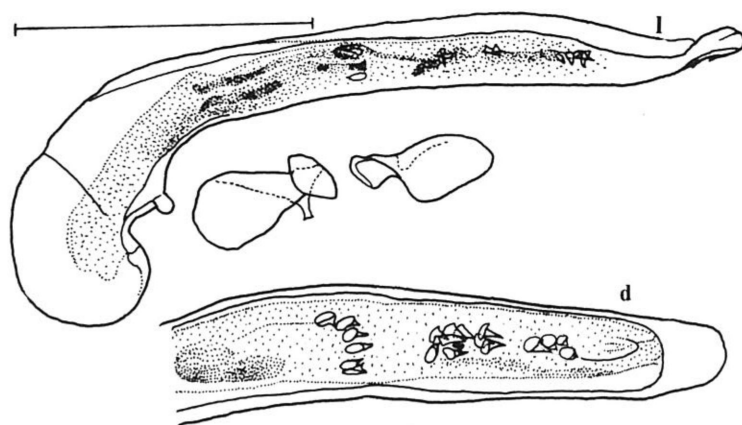


Fig. 21. Male genitalia of *Hyphaereon planicollis* sp. nov. — d, dorsal aspect; l, lateral aspect. Scale: 1 mm.

side and notched at apex. Legs long; fore tibiae each sulcate in basal 4/5, unisetous at apico-lateral corner; hind tarsi 1/5 longer than the width of head, 1st segment as long as the 2nd and 3rd taken together, 3rd twice the 4th, claw segment bi- or trisetose along inner margin and bisetose along outer margin of ventral surface.

Aedeagus (Fig. 21) slender, almost straightly prolonged distad, thinned and weakly sinuate at apex; apical orifice wide, inner sac armed with three clusters of peg-shaped sclerites in apical 1/5, 2/5 and near middle; ventral margins each with small serration.

Female unknown.

Length: 8.9 mm. Width: 4.6 mm.

Holotype: ♂, Ringlet, Cameron Highland, alt. 900 m, 30 km SE of Ipoh, Perak, W Malaysia, 25. IV–5. V. 2001, M. RIHA leg. (preserved in OMNH).

Remarks: *Hyphaereon trusmadiensis* from Borneo, this new species from Malaysia, *H. masumotoi* from Thailand, *H. laosensis* from Laos, *H. chinensis* from Yunnan and *H. shibatai* from Taiwan are closely related one another. Due to the discovery of three species described here, distributions of those species link a belt from Taiwan to Borneo through South China and the Indochinese and Malayan Peninsulæ. By careful analysis of characters, where ancestor of the species was generated and how the species spread must be cleared.

Etymology: The specific name, “*planicollis*” means flat (= *plani*) pronotum (= *collis*) in Latin.

Hyphaereon platynoides N. ITO, sp. nov.

(Figs. 15 and 22)

Body similar in shape to *Hyphaereon pallidipes* N. ITO, oblong, weakly convex, black, shiny, with iridescent lustre on elytra; labial and maxillary palpi, antennae, lateral margins of pronotum and legs yellowish brown, mandibles dark reddish brown.

Head weakly raised, not punctate, moderate in size, 0.68 times as wide as the pronotal width, with interocular space narrow, a little less than $\frac{3}{5}$ as wide as the width of head; labrum almost square; clypeus shallowly emarginate apically, depressed along apex where the surface is coarsened; clypeal suture thin, shallow and straight; frontal impressions not deep, arcuately divergent and attaining supraorbital grooves; eyes large and hemispherically prominent; temples steeply declivous, $\frac{1}{10}$ the eye length; genuine ventral margins of eyes not separated from buccal fissure; antennae slender, reaching basal 5th of elytra, 3rd segment pubescent in apical half, as long as the 4th and a little more than twice the 2nd; mandibles robust and elongate, sharpened at tips; 3rd segment of labial palpi slightly longer than the 2nd (1.08 in ratio); ligula expanded forwards, weakly bisinuate at apex; paraglossae narrow, rounded apically, surpassing beyond ligula; mentum with median tooth obtusely triangular and rounded at apex, epilobes narrow, not widened apicad; microsculpture vague, visibly isodiametric meshes near clypeal apex and transverse meshes partly on frons.

Pronotum cordiform, widest at apical $\frac{2}{5}$, approximately a half wider than long, moderately convex; sides widely reflexed like most species of the genus *Platynus*, clearly arcuate in apical half, thence sublinearly oblique, widely sinuate before base; apex shallowly emarginate, straight at the bottom, entirely bordered; base $\frac{1}{10}$ wider than apex, barely emarginate in middle, slightly arcuate at sides, clearly bordered throughout; apical angles weakly protruding, rather widely rounded; basal angles a little larger than right angle, roundly angulate; lateral furrows relatively wider near apex, gradually widened basad, and adjoining basal foveae, which are wide and deep; front transverse impressions wide V-shaped, rather wide and shallow, the hind one shallow and indistinct; median line thin, shallow, obliterated near both impressions; dorsal punctures absent on disc, sparse and minute near middle of apex, coarse, dense and partly confluent in basal foveae; microsculptures partly visible as obscure transverse meshes.

Elytra rather widely elliptical, 1.36 times as wide as the pronotal width, 1.63 times as long as wide, gently convex, without any punctures; sides clearly curved from base to basal $\frac{1}{10}$, thence weakly arcuate to apical third, from there gradually strongly rounded towards apices, shallowly sinuate preapically; apices moderately produced posteriad, more or less steeply sloped at margins, acute at tips which are close to each other; bases weakly arcuately oblique at sides, humeral angles very obtuse and sharpened; striae wide, deep, finely and clearly crenulate, scutellar striole long; intervals slightly convex, becoming a little more convex towards apices and bases, a series of 4–5 discal pores on 3rd interval; marginal

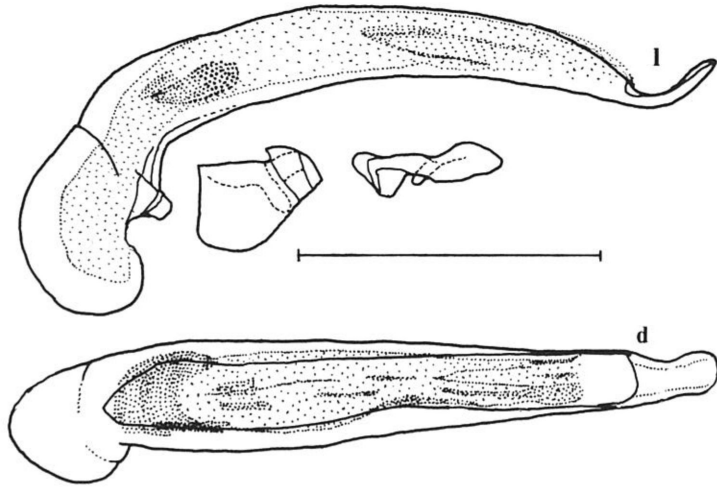


Fig. 22. Male genitalia of *Hyphaereon platynoides* sp. nov. — d, dorsal aspect; l, lateral aspect. Scale: 1 mm.

series subinterrupted medially, (12–9) + (11–13) umbilicate pores; microsculpture finely visible as rather dense transverse lines. Hind wings fully developed.

Ventral surface wholly smooth; metepisterna gently contracted behind, nearly a half longer than wide (1.47 in ratio); outer margin of 6th abdominal sternite in male bisetose and truncate or slightly notched at apex.

Legs long; hind femora bisetose along hind margin; fore tibiae, gently dilated distad, sulcate throughout, bi- or trispinous along apico-external margin; tarsi long, 1st to 4th segments of mid tarsus ventrally with biseriate adhesive squamae, hind tarsi 1.32 times as long as the width of head, 1st segment a little shorter than the 2nd and 3rd taken together, 3rd 2/7 shorter than the 2nd and 2/5 longer than the 4th, claw segment bisetose along each margin of ventral surface.

Aedeagus (Fig. 22) similar in outline to that of *Hyphaereon pallidipes*, slender, weakly arcuate, clearly reflexed at apex; apical orifice wide, inner sac not bearing any spinous nor peg-shaped sclerites, and with a cluster of grained sclerites near basal bulb; apical lobes elongate-quadrate, weakly contracted in middle.

Female unknown.

Length: 7.3–8.0 mm. Width: 3.0–3.3 mm.

Holotype: ♂, visitor center, Khao Yai National Park, Nakhon Ratchasima, Thailand, 24. IX. 2007, Y. KATAYAMA leg. (OMNH). Paratypes: 5 ♂♂, same data as the holotype (preserved in cNI).

Remarks: This new species is closely allied to *Hyphaereon pallidipes* N. ITO from Laos, but the body is a little smaller in size, the head and pronotum are not clearly microsculpture, the elytra are not rounded at humeral angles, and the aedeagus bears neither spinous nor peg-shaped sclerites in inner sac.

The present species is related to *Hyphaereon pallidipes* and *H. baehri* N. ITO from Borneo. Between distributions of the latter two species, wide blank area was present. The present new species fills up a part of the area. It is interesting that this distribution pattern is similar to that of the relatives of *Hyphaereon masumotoi* as mentioned in description of *H. planicollis*.

Etymology: The specific name, "*platynooides*" means similarity in outline and flatness of body to a certain species of the genus *Platynus* in Greek.

Hyphaereon borneensis N. ITO

(Fig. 23)

Hyphaereon borneensis: N. ITO, 1990, Ent. Rev. Japan: 81–82, (Sapulut in Borneo).

Specimens examined: 1 ♂, Poring Hot Spring, alt. 485 m, Mt. Kinabalu National Park, Sabah, Borneo, Malaysia, 21. VIII. 1988, A. SMETANA leg.; 1 ♀, ditto, 23. VIII. 1988; 1 ♀, ditto, 24. VIII. 1988 (New record), (preserved in ACO and cNI).

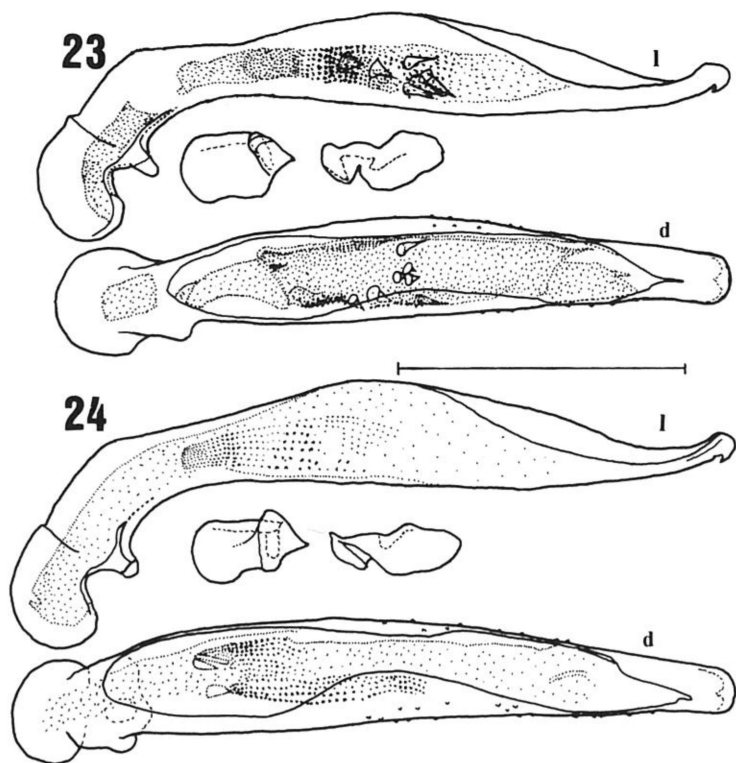
Hyphaereon ocularis N. ITO, sp. nov.

(Figs. 16 and 24)

Body gently convex, oblong, black, shiny, iridescent on elytra; legs yellowish brown, antennae light brown, maxillary and labial palpi somewhat dark brown, labrum and mandibles dark reddish brown.

Head rather large, 0.71 times as wide as the pronotal width, weakly elevated on vertex, with narrow interocular space 0.58 times as wide as the width of head; labrum subtrapezoidal; clypeus thin, shallowly emarginate and bordered at apex; clypeal suture shallow, slightly sinuate; frontal impressions each wide and moderate in depth near apex, gradually shallowed and arcuate behind, reaching supraorbital grooves; eyes large and hemispherically prominent; genuine ventral margin of eyes adjoining buccal fissure; 3rd segments of labial palpi relatively massive, almost as long as the 2nd; ligula widened apicad, bisinuate at apex; mentum with regular-triangular median tooth, epilobes expanded distad; microsculpture largely invisible, observed as obscure isodiametric meshes on apical area of clypeus.

Pronotum transversely subcordate, widest a little behind apical 2/5, a half wider than



Figs. 23–24. Male genitalia of *Hyphaereon* spp. — 23, *H. borneensis* N. Ito; 24, *H. ocularis* sp. nov.— d, dorsal aspect; l, lateral aspect. Scales: 1 mm.

long, weakly convex, flattened on disc; sides clearly arcuate in apical half, thence oblique inwards and widely and shallowly sinuate before base, where those are reflexed; apex shallowly emarginate, entirely bordered; base 1/5 wider than apex, feebly arcuate, straight in middle, bordered throughout; apical angles slightly produced, rather widely rounded; basal angles each sharp and a little obtuse, with a tiny tooth at tip; lateral furrows narrow in apical third, thence gradually expanded basad and fallen into basal foveae, each of which is rounded and somewhat deep; front and hind transverse impressions vague; median line thin, shallow and reduced near apex and base; surface vaguely and sparsely wrinkled on disc, largely impunctate, sparsely and somewhat coarsely punctate in lateral furrows and basal foveae; microsculpture vague and visible as transverse meshes on disc, a little clearer and as isodiametric meshes in lateral furrows and basal foveae.

Elytra narrowly oval, 1/3 wider than the pronotal width, 1.54 times as long as wide,

gently convex, without any punctures; humeri clearly curved; preapical sinus shallow; apices rather produced posteriad, obliquely and weakly arcuate at outer margins, with tips close to each other, acute at sutural angles; bases each straight in inner half and gently oblique in outer half, obtusely and angularly countered with lateral border; striae of moderate width, clearly crenulate, scutellar striole long; intervals almost flat on disc, gradually raised towards apices and bases, 3rd interval with a series of 7 setiferous pores; marginal series relatively widely interrupted in middle, consisting of 10 + (13–14) umbilicate pores; microsculptures visible as obscure transverse lines. Hind wings fully functional.

Ventral surface wholly smooth; metepisterna elongate, nearly a half longer than wide; 6th abdominal sternite bisetose in male and unisetose in female at each side and shallowly notched in male and widely rounded in female at apex.

Legs long; fore tibiae slender, clearly sulcate throughout, with one spine at apico-external corner; hind tarsi 1.08 times in male and 0.95 times in female as long as the width of head, 1st segment a little shorter than the 2nd and 3rd taken together (0.92 in ratio), 2nd approximately 1/4 longer than the 3rd and 2.44 times as long as the 4th, claw segment bisetose along outer margin of and trisetose along inner margin of ventral surface.

Aedeagus (Fig. 24) bearing small basal bulb, almost straightly prolonged distad, thickened in middle, weakly warped dorsad in apex, knob-shaped and hooked oblique-ventrad at tip; apical orifice wide, constricted in middle, inner sac without any spinous nor peg-shaped sclerites; lateral surface pimply in apical third.

Length: 8.4–8.8 mm. Width: 3.3–3.6 mm.

Holotype: ♂, Visitor Center, Khao Yai National Park, Nakhon Ratchasima, Thailand, 24. IX. 2007, Y. KATAYAMA leg. (preserved in OMNH); 1 ♀, ditto, 3. X. 2007.

Remarks: This new species is closely allied to *Hyphaereon borneensis* N. ITO, but the pronotum is sinuate before base instead of only linearly oblique and more densely punctate in basal foveae, the elytra are more clearly angulate at humeral angles, and the aedeagus does not bear any sclerites in inner sac.

Etymology: The species is named after its large eyes.

Coleolissus (Tenuistilus) kiyoyamai N. ITO

(Fig. 25)

Coleolissus kiyoyamai: N. ITO, 1987, Ent. Rev. Japan, Osaka, 42, Suppl.:24–27, (Maxwell's Hills, Malaysia).

Specimens examined: 1 ♂, 2 ♀ ♀, Ringlet, Cameron Highland, alt. 900 m, 30 km SE of Ipoh, Perak, W Malaysia, 18–22. I. 1999, PACHOLÁTKO leg. (new record), (preserved in cNI).

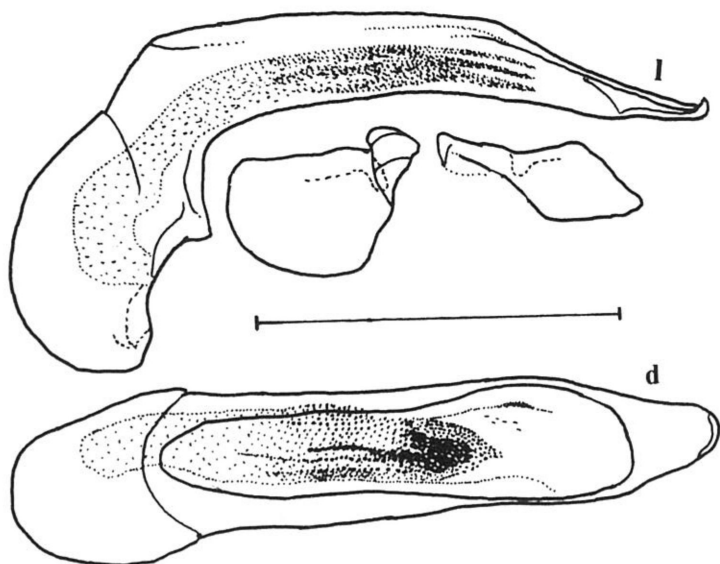


Fig. 25. Male genitalia of *Coleolissus (Tenuistilus) kiyoyamai* N. ITO. — d, dorsal aspect; l, lateral aspect. Scale: 1 mm.

Coleolissus (Tenuistilus) subcastaneus N. ITO, sp. nov.

(Figs. 18 and 26)

Body similar in shape to *Coleolissus (Tenuistilus) kiyoyamai*, suboval, rather flattened, black to slightly brownish black, shiny, with iridescent lustre on pronotum and elytra; labrum, maxillary and labial palpi, antennae, lateral margins of pronotum and elytra and legs light brown, mandibles dark reddish brown.

Head gently convex, somewhat large, 0.69 times as wide as the pronotal width, with interocular space narrow and 0.63 times as wide as the width of head; labrum subsquare, triangularly emarginate apically; clypeus weakly and triangularly protuberant at apical corners, straight between the protuberance, depressed in apical half; clypeal suture fine and shallow; frontal impressions not deep, running arcuately outwards, shallowed behind from middle, reaching supraorbital grooves; eyes large, not so prominent as hemispherical; genuine ventral margins of eyes adjoining buccal fissure; labial palpi slender, 3rd segment slightly longer than the 2nd (1.07 in ratio); ligula abruptly expanded just behind apex which is truncate and forms sharp angles with sides; paraglossae long and narrow; mentum with rounded median tooth, epilobes widened forwards; microsculpture clearer in female than in male, consisting of mixture with isodiametric and square meshes.

Pronotum transversely quadrate, widest at a little behind apical $2/5$, a little more than

1.4 times as wide as long, weakly convex; sides gently arcuate in front, straightly oblique behind from middle, not sinuate before base; apex almost straight, clearly bordered throughout; base 1/5 wider than apex, feebly bisinuate, with rather thick and entire border; lateral furrows narrow in apical 2/5, thence gradually widened basad, fused with basal foveae which are shallow and moderate in size; both front and hind transverse impressions shallow and obscure; median line thin and very shallow, broken near base; dorsal punctures largely absent, minute and sparse in basal foveae; microsculpture clearer in female, consisting of mixtures with isodiametric and square meshes.

Elytra oval, wide, 1.38 times as wide as the pronotal width, a half longer than wide, more or less convex, very sparsely and microscopically punctate; sides clearly rounded in humeri, weakly arcuate in middle, shallowly sinuate before apices; apices each rather produced behind, narrow in rounded margin, acute at sutural angle; bases shallowly emarginate, feebly rounded near each end, humeral angles very wide and angulate; striae wide, fairly deep on disc, gradually deepened apicad and basad, clearly crenulate, scutellar striole long; intervals weakly convex on disc and becoming more convex apicad and basad, 3rd interval with a series of 6 setiferous pores; marginal series almost continuous, composed of 20 umbilicate pores; microsculpture vague, consisting of transverse lines. Hind wings entirely developed.

Ventral surface without any punctures; metepisterna elongate, nearly a half longer than wide; apical margin of 6th abdominal segment fairly produced and feebly emarginate in male and widely rounded in female at tip, and quadrisetose in both sexes.

Legs long; fore tibiae slender, not sulcate, bispinous along apico-external margin; tarsi long, hind tarsi longer in male than and in female as long as the width of head, 1st segment 1.05 times as long as the and 3rd taken together, 2nd 2/5 longer than the 3rd and 2.3 times as long as the 4th, claw segment bisetose along outer margin and bi- or trisetose along inner margin of ventral surface.

Aedeagus (Fig. 26) weakly arcuate, gradually thinned apicad from middle, sinuate in apical third of ventral surface, knob-shaped and hooked dorsad at tip; apical orifice widely open, inner sac with a triangular cluster of small spinous sclerites; apical orifice more or less elongate-triangular, rounded at tip; styluses elongate, with two setae at tip.

Length: 8.0–8.9 mm. Width: 3.5–4.0 mm.

Holotype: ♂, Gunung Alab, ca. 1,700 m, Crocker range, Sabah, North Borneo, Malaysia, 23–29. V. 1998. (OMNH); 1 ♂, 2 ♀♀, same locality as the holotype, ca. 1,450 m, 3–16. IV. 2000. (preserved in cNI); 1 ♀, ditto, Mt. Kinabalu, alt. 1,550–1,700 m, 6°00' 7"N, 116°32'35"E, 7–9. IV. 2000, GERSTMEIER leg. (Preserved in ZSSM).

Remarks: This new species is allied to *Coleolissus (Tenuistilus) kiyoyamai* N. ITO, but is distinguished from the latter by the pronotum more obscurely and less densely punctate, the 6th abdominal sternite not rounded at tip, and the aedeagus with a cluster of spinous sclerites instead of squamate sclerites.

Etymology: The specific name is derived from weakly (= sub) + brown (castaneous), in Latin.

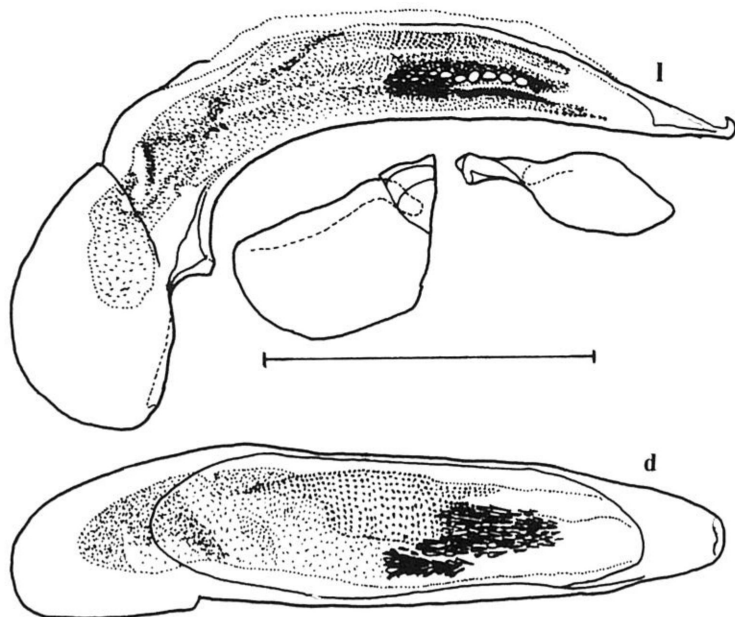


Fig. 26. Male genitalia of *Coleolissus (Tenuistilus) subcastaneus* sp. nov. — d, dorsal aspect; l, lateral aspect. Scale: 1 mm.

Coleolissus (Tenuistilus) iridipennis N. ITO, sp. nov.

(Figs. 17 and 27)

Body oblong-suboval, black, shiny, clearly iridescent on elytra, with very slightly greenish tinge on pronotum and elytra; maxillary and labial palpi, 1st and 2nd antennal segments (following segments from the 3rd missing), and legs brown, labrum, mandibles and apical area of clypeus dark reddish brown.

Head not large, 0.63 times as wide as the pronotal width, moderately convex, very sparsely and minutely punctate; labrum subtrapezoidal, rather deeply and triangularly concave apically; clypeus shallowly emarginate at apex, depressed in apical half, weakly slant in the remaining area; clypeal suture straight, shallowly carved; frontal impressions moderate in depth near apices, gradually shallowed backwards, arcuately running towards eyes, and reaching supraorbital grooves; eyes not large, gently prominent; temples somewhat developed, 3/10 the eye length; genuine ventral margins of eyes adjoining buccal fissure; microsculpture visible as isodiametric meshes in apical area of clypeus and partly as transverse meshes on frons.

Pronotum transversely quadrate, widest just behind apical $2/5$, 1.43 times as wide as long, arcuate throughout at sides, more strongly convergent forwards than backwards, weakly declivous apico-laterad; apex moderately and obtapezoidally emarginate, wholly bordered; base $1/5$ wider than apex, barely bisinuate, clearly and entirely bordered; apical angles rather widely rounded; basal angles obtuse, angulate, feebly prominent at tips; lateral furrows narrow in apical third, thence gradually widened basad, fused with basal foveae, each of which is large, flattened and bears a short and vague ridge at middle; both front and hind transverse impressions shallow and vague; median line thin, lying between both the impressions; dorsal punctures absent centrally, moderate and somewhat fine in apical area, and dense and coarse in lateral furrows and basal foveae where they are partly confluent; microsculpture visible as transverse meshes partly on disc and basal foveae, as isodiametric meshes in lateral furrows.

Elytra flattened, suboval, $3/7$ longer than wide, not punctate; sides clearly rounded in humeri, subarcuate in middle, shallowly sinuate preapically; apices produced, rounded at tips, narrowly separated to each other; bases shallowly emarginate, humeral angles very obtuse and blunt; striae wide, deep and clearly crenulate, scutellar striole moderately long; intervals flat on disc, gradually elevated apicad, laterad and basad, 3rd interval with a series of 7 setiferous pores; marginal series interrupted medially, composed of (7–10) + 11 umbilicate pores; microsculpture consisting of fine transverse lines. Hind wings fully developed.

Ventral surface mostly smooth; metepisterna not elongate, 1.15 times as long as wide; 6th abdominal sternite shallowly emarginate at apex, quadrisetose at apical margin.

Legs slender, moderately long; fore tibiae each weakly dilated apicad, unispinous at apico-external corner, with sulcus engraved in basal half; hind tarsi 1.18 times as long as the width of head, 1st segment equal in length to the 2nd and 3rd taken together, 2nd segment $2/5$ longer than the 3rd and twice the 4th, claw segment bisetose along each margin of ventral surface.

Aedeagus (Fig. 27) clearly curved behind basal bulb, then prolonged straight, tapered distad from apical third, with apex knob-shaped and hooked dorsally; apical orifice widely open, inner sac armed with two clusters of fine and long sclerites in middle and behind middle; apical lobe subtriangular, rounded at tip, $1/5$ wider than long.

Length: 9.8 mm. Width: 4.0 mm.

Female unknown.

Holotype: ♂, Tamdao, Vietnam, 17–24. V. 1997, T. Ito leg. (OMNH).

Remarks: This new species is similar in outline to *Hyphaereon subviridipennis* N. ITO from Laos at first sight in spite of belonging to a different genus, but the body is tinged with much less green, the pronotum does not bear wide brownish transparent marginal areas and is much more weakly microsculptured, and the aedeagus is robuster and bears two clusters of fine sclerites instead of doing single peg-shaped sclerite.

Judging from shape of aedeagus, the new species is systematically related to *Coleo-lissus (Tenuistilus) kiyoyamai* N. ITO, but the body is more shiny, the pronotum is not so

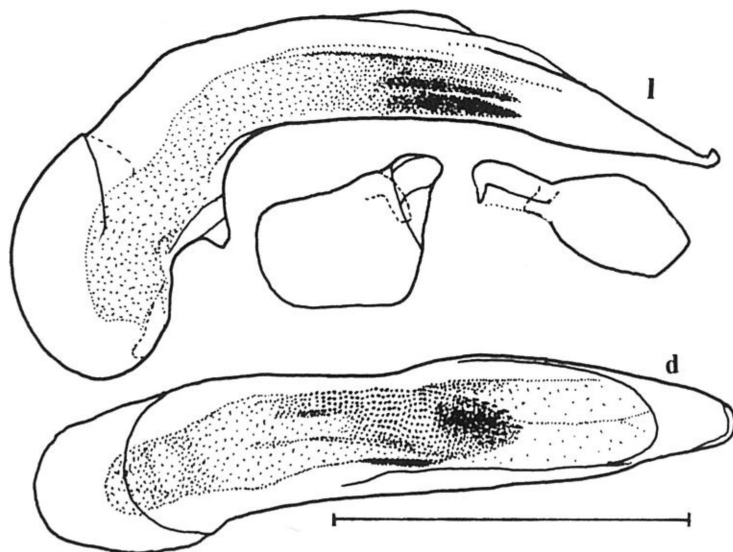


Fig. 27. Male genitalia of *Coleolissus (Tenuistilus) iridipennis* sp. nov. — d, dorsal aspect; l, lateral aspect. Scale: 1 mm.

transverse, more coarsely and densely punctate and the elytra are more strongly iridescent and bear greenish tinge.

This new species from Laos, *Coleolissus (Tenuistilus) teradai* (HABU) from Taiwan, *C. (T.) kiyoyamai* N. ITO from Malaysia, and the former new species, *C. (T.) subcastaneus* N. ITO, sp. nov. from Borneo are estimated to be related one another in having the stylus bearing long seta at apex. The distribution pattern is also similar to those of members related to *Hyphaereon masumotoi* and of members related to *H. baehri*.

Etymology: The specific name “*iridipennis*” means iridescent (= iridi) elytra (pennis) in Latin.

***Coleolissus (Tenuistilus) doisaketensis* N. ITO, sp. nov.**

(Figs. 28 and 32)

Body flattened, oval, black, shiny, moderately iridescent on elytra; buccal parts, antennae, tibiae and femora light reddish brown, mandibles and tarsi brown.

Head small, 0.56 times as wide as the pronotal width, weakly elevated, very sparsely and microscopically punctate, with interocular space narrow and 0.60 times the width of head; labrum transversely quadrate; clypeus very shallowly emarginate, flat, longitudinally

and vaguely rugose; clypeal suture clearly carved, feebly arcuate; frontal impressions deep near apices, gradually shallowed backwards, reaching supraorbital grooves; eyes large, moderately prominent; temples rather steeply oblique, barely arcuate, $2/9$ the eye length; genuine ventral margins of eyes not separating from buccal fissure; labial palpi moderate in thickness, 3rd segment 0.92 times the 2nd; ligula wedge-shaped, sharply angulate at lateral corners, emarginate at apex; paraglossae narrow, fully prolonged forwards beyond ligula; mentum with subquadrate median tooth widely arcuate at the apex, epilobes abruptly expanded apicad; microsculpture clearly visible, composed of mixture with isodiametric and square meshes.

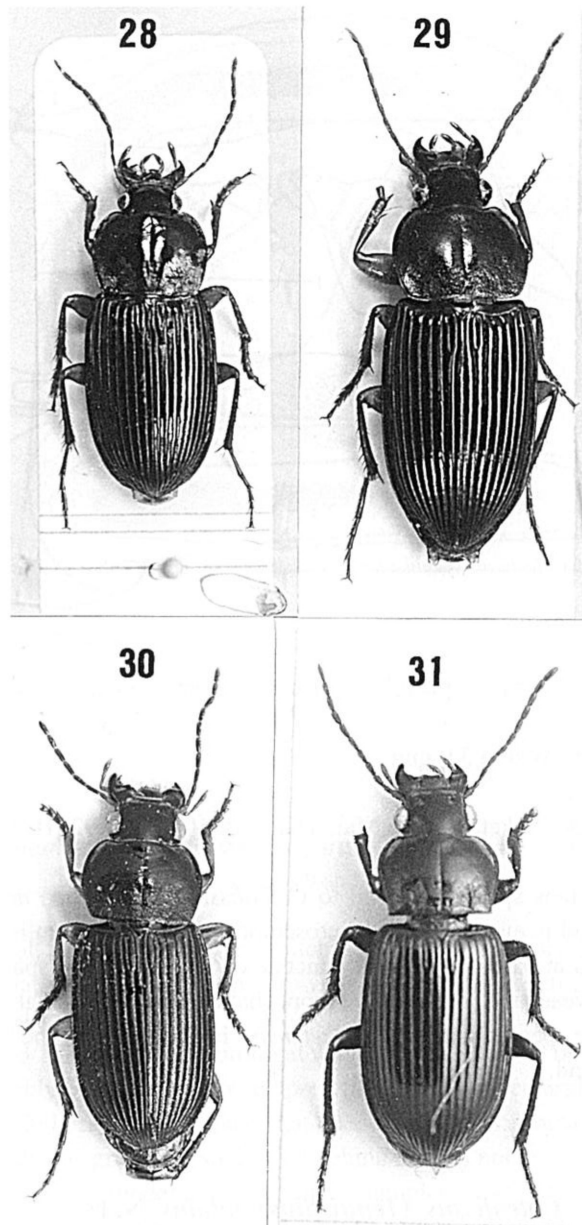
Pronotum quadrate, widest a little behind middle, nearly $2/3$ wider than long, sides rounded throughout, stronger in roundness forwards than backwards; apex deeply and obtusely emarginate, wholly and clearly bordered; base 1.36 times as wide as apex, almost straight, barely arcuate at sides, thinly bordered throughout; lateral furrows narrow in apical fourth, thence abruptly widened basad, fallen into basal foveae; basal foveae large and rounded; front transverse impression obscure, the hind one obliterated; median line fine, reduced near apex and base; dorsal punctures largely absent on disc excepting for several vague punctures near apex, rather coarse in lateral furrows and basal foveae, becoming denser basad, and partly confluent in basal foveae; microsculpture fine, consisting of transverse meshes, a little denser in lateral furrows and basal foveae than on disc.

Elytra oblong-oval, flattened on disc, impunctate, 1.16 times as wide as the pronotal width, a half longer than wide; sides each subarcuate in middle, gradually strongly rounded distad from apical third, with shallow sinus before apex; apices rather steeply oblique, narrowly rounded at tips, acute at sutural angles; bases feebly emarginate, oblique at sides, humeral angles more or less produced forwards, a little larger than right angle; striae wide, moderate in depth, and clearly crenulate, scutellar striole long; intervals flattened on disc, gradually and weakly becoming convex towards surround areas, 3rd interval with a series of 6 setiferous pores; marginal series subinterrupted medially, consisting of (9–10) + (12–13) umbilicate pores; microsculpture vaguely visible as sparse transverse lines. Hind wings entire.

Ventral surface mostly impunctate, sparsely punctate on meso- and metepisterna and lateral portions of metasternum; metepisterna elongate, a half longer than wide; 6th abdominal sternite subtruncate at apex and bisetose at each side.

Legs long; hind femur bisetose along hind margin; fore tibiae each slender, unispinous at apico-external corner, with clear sulcus lying in basal $4/5$; tarsi long, mid tarsus bearing biseriate adhesive hairs 1st to 4th segments, hind tarsus $1/3$ longer than the width of head, 1st segment 1.14 times as long as the 2nd and 3rd taken together and 3.00 times the 3rd which is $4/5$ longer than the 4th, claw segment with two or three setae along inner margin and two setae along outer margin of ventral surface.

Aedeagus (Fig. 32) large and more or less massive, sinuate near apex and acute ventrad at tip in lateral view and well constricted near apex in dorsal view; apical orifice wide,



Figs. 28–31. Habitus of Selenophori group spp. — 28, *Coleolissus (Tenuistilus) doisaketensis* sp. nov.; 29, *C. (T.) puncticollis* sp. nov.; 30, *Hyparpalus pakistanensis* sp. nov.; 31, *Trichotichnus (Trichotichnus) trusmadiensis* sp. nov.

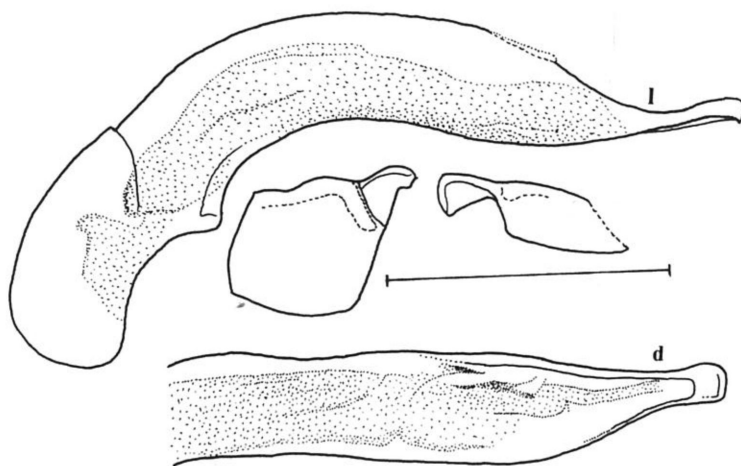


Fig. 32. Male genitalia of *Coleolissus (Tenuistilus) doisaketensis* sp. nov. — d, dorsal aspect; l, lateral aspect. Scale: 1 mm.

inner sac without any sclerites, apical lobe quadrate, subtruncate and obscurely bordered at distal margin.

Length: 9.6 mm. Width: 3.9 mm.

Female unknown.

Holotype: ♂, Doi Saket, Chiang Mai, Thailand, 10. VI. 1992, H. KONISHI leg. (preserved in OMNH).

Remarks: This new species is allied to *Coleolissus (Tenuistilus) nitens* N. ITO from Malaysia, but the head is more strongly microsculptured, the pronotum is more transverse, more widely rounded at basal angles, not punctate on disc and more sparsely so in lateral furrows and basal foveae, and the elytra are more shallowly emarginate at bases.

Etymology: The specific name, “*doisaketensis*” is derived from the type locality, Doi Saket in north Thailand.

Coleolissus (Tenuistilus) nitidus N. ITO

(Fig. 33)

Coleolissus nitidus N. ITO, 1991: Ent. Rev. Japan, 47: 157. (Huain Nam Dang, Thailand)

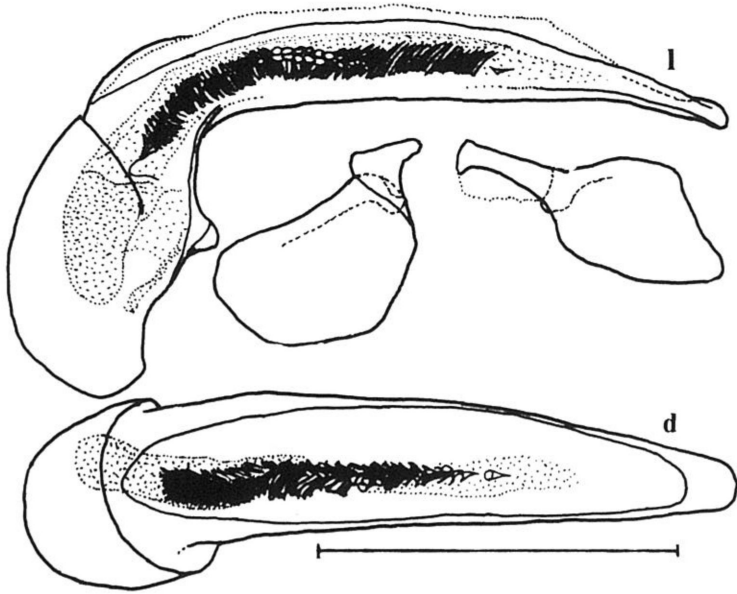


Fig. 33. Male genitalia of *Coleolissus (Tenuistilus) nitidus* N. ITO — d, dorsal aspect; l, lateral aspect. Scale: 1 mm.

Coleolissus (Tenuistilus) puncticollis N. ITO, sp. nov.

(Figs. 29 and 34)

Body suboval, moderately convex, pitchy black, shiny, clearly iridescent on elytra; maxillary and labial palpi, and antennae brown, labrum and legs a little dark brown (tibiae in paratype blackish).

Head small, $\frac{3}{5}$ as wide as the pronotal width, gently elevated on vertex, not punctate; labrum square, feebly bilobed apically; clypeus thin, shallowly emarginate at apex; clypeal suture straight, entirely impressed, somewhat deepened at ends; frontal impressions moderate in depth near apices, gradually shallowed behind though not reduced, arcuately running towards eyes; eyes large, moderately prominent; temples short, $\frac{1}{5}$ the eye length, rather steeply convergent behind; genuine ventral margins of eyes adjoining buccal fissure; antennae surpassing slightly beyond pronotal base, 3rd segment pubescent in apical half, as long as the 4th and twice the 2nd; mandibles robust and elongate; labial palpi slender, 3rd segment 1.08 times as long as the 2nd; ligula gently widened forwards, truncate at apex; paraglossae rather wide and rounded apically; mentum moderately and regular-triangularly toothed in middle, epilobes subparallel-sided; microsculpture largely unobserved, visible as

isodiametric meshes only on apical area of clypeus.

Pronotum transversely quadrate, wholly arcuate and not sinuate at sides, weakly convex, approximately a half wider than long; apex obtrapezoidally emarginate, with complete border; base fairly wider than apex (1.38 in ratio), more or less deeply emarginate in middle, gently arcuate at sides, clearly and entirely bordered; apical angles rather produced forwards, narrowly rounded; basal angles rounded off; lateral furrows gradually widened from apex towards base and fused with basal foveae; basal foveae each large, only almost flattened, with quite indistinct humps; front transverse impressions very shallow, the hind one obsolete; median line mostly thin and shallow, though deepened near base; surface bearing several short and zigzag wrinkles on disc, impunctate on narrow central area, minutely and moderately on apical and apico-lateral areas, coarsely and densely punctate in lateral furrows and basal areas where those are partly confluent; microsculpture clear, consisting of mixtures with square and isodiametric meshes.

Elytra oblong-oval, gently convex, with very sparse and minute punctures; sides weakly curved in humeri, shallowly sinuate preapically; apices produced posteriad, narrowly rounded at tips, slightly separated to each other; bases each rather deeply emarginate, forming a right angle with lateral margin; striae not wide, deep and clearly crenulate, scutellar striole long; intervals gently convex, gradually becoming more convex apicad and basad, 3rd interval bearing a series of 8–9 setiferous pores; marginal series narrowly interrupted in middle, composed of (10–11) + (12–13) umbilicate pores; microsculpture consisting of obscure transverse lines. Hind wings fully developed.

Ventral surface rather coarsely punctate on mesepisterna, sparsely and moderately so on metepisterna and lateral areas of metasternum; metepisterna convergent behind, 1.30 times as long as wide; 6th abdominal sternite in both sexes widely rounded and quadrisetose at apical margin.

Legs long; hind femora bisetose along hind margin; hind tarsi 1/4 longer in male and 1/5 longer in female than the width of head, 1st segment 1.22 times as long as the 2nd and 3rd taken together, 2nd 2/5 longer than the 3rd and approximately twice the 4th, claw segment bisetose along inner margin of and bi- or trisetose along outer one of ventral surface.

Aedeagus (Fig. 34) large at basal bulb, fairly curved behind basal bulb, thence almost straightly prolonged, weakly thickened at apex; apical orifice widely opened, inner sac with two clusters of sclerites, one composed of elongate peg-shaped sclerites and another of fine spindle-like ones.

Length: 9.8–10.5 mm. Width: 3.9–4.3 mm.

Holotype: ♂, 15°02'N, 106°35'E, Nong Lom (Lake), alt. 800 m, 15 km SE of Ban Houaykong, Bolaven Plateau, Attapu prov., South Laos, 18–30. IV. 1999, E. JENDEK and O. ŠAUŠA leg. (preserved in OMNH). Paratype: 2 ♀♀, same data as the holotype (preserved in cNI); 1 ♂, 1 ♀, Ban Khoun Ngeum, alt. 250 m, 18°07'N, 104°29'E, Khamnouan Prov., C Laos, 20–29. VI. 2004, E. JENDEK and O. ŠAUŠA leg.

Remarks: This new species is allied to *Coleolissus (Tenuistilus) nitidus* N. ITO from

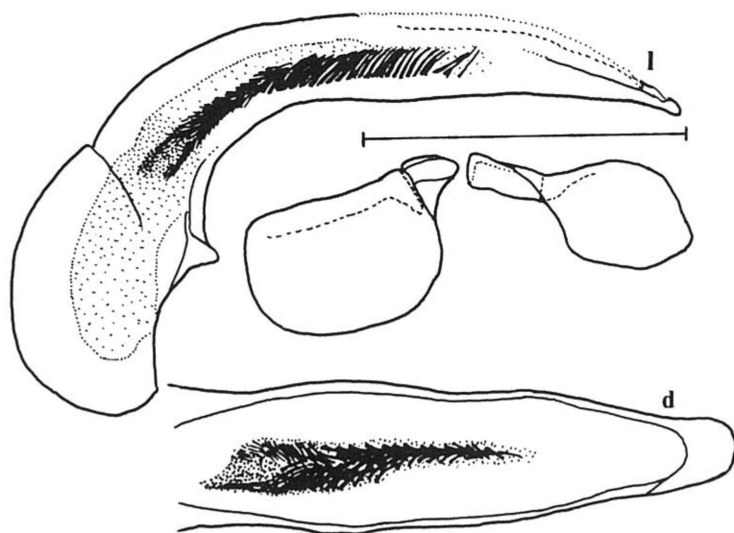


Fig. 34. Male genitalia of *Coleolissus (Tenuistilus) puncticollis* sp. nov. — d, dorsal aspect; l, lateral aspect. Scale: 1 mm.

Thailand, but the body is wider, the pronotum is a little more strongly rounded at sides and with more widely rounded apical and basal angles, and the aedeagus does not have a peg-shaped sclerite isolated from clusters of long sclerites.

Etymology: The specific name, “*puncticollis*” means densely punctate (= *puncti*-) pronotum (= *collis*) in Latin.

***Hyparpalus pakistanensis* N. ITO, sp. nov.**

(Figs. 30 and 35)

Body oblong-oval, black, shiny, clearly iridescent on elytra, sparsely pubescent on elytra and ventral sternites; labial and maxillary palpi, labrum, basal three segments of each antenna and legs light brown, the remaining antennal segments blackish.

Head moderate in size, $2/3$ as wide as the pronotal width, gently elevated, densely punctate and longitudinally wrinkled before frontal impressions, interocular space not wide, a little smaller than $2/3$ of the width of head; labrum subquadrate, rounded at sides and apical angles; clypeus shallowly and uniformly emarginate; clypeal suture thin and straight; frontal impressions not clear, seeming to be fovea, obliterated near supraorbital grooves; eyes large, moderate in prominence; temples short, 0.13 times as long as the eye length;

space between buccal fissure and genuine ventral margins of each eye very narrow; mandibles stout and thick, terebral tooth of left mandible trapezoidal and that of right one widely rounded, retinacular tooth of right one triangularly produced; antennae reaching near basal eighth of elytra, 3rd segment pubescent in apical 2/3, as long as the 4th and twice the 2nd; labial palpi short and slender, 3rd segment 1/7 shorter than the 2nd; ligula narrow, parallel-sided, and truncate at apex; mentum with obtusely triangular median tooth, epilobes expanded apicad; microsculpture largely invisible, composed of isodiametric meshes on clypeus.

Pronotum quadrate, widest a little before middle, a half wider than long, weakly convex, flat on disc, densely punctate all over, the punctures coarse on lateral and basal areas; sides rounded throughout; apex obtrapezoidally emarginate, thinly bordered throughout; base nearly 1/5 wider than apex, shallowly emarginate in middle 3/5, feebly arcuate at sides, wholly and clearly bordered; apical angles rather produced forwards, more or less widely arcuate; basal angles rather obtuse, narrowly rounded; lateral furrows narrow, impressed in a line; basal foveae large, shallow, with vague longitudinal groove in each; front transverse impression wide and shallow, the hind one also shallow; median line fine, shallow, lying between the impressions; microsculpture largely unobservable, visible as transverse meshes in basal foveae.

Elytra oblong, 1/5 longer than the pronotal width, 1.52–1.55 times as long as wide, weakly convex, transversely and not clearly aciculate; sides weakly arcuate in humeri, parallel in middle, gradually strongly curved inwardly in apical 3rd, shallowly sinuate preapically; apices widely rounded at outer margins, narrowly separated to each other; bases oblique at sides, obtuse and acute at humeral angles; striae rather narrow, clearly crenulate, scutellar striole not long; intervals weakly convex on disc, gradually becoming a little more convex towards apices and bases, 3rd interval with a series of 14–18 setiferous pores, 5th one with that of 12–16 and 7th one with that of 12–15 pores; marginal series divided into two groups, fore group composed of 9–10 umbilicate pores and hind one of 8 pores; microsculpture visible as vague and fine quadrate meshes. Hind wings fully developed.

Ventral surface covered with short and dense pubescence, coarsely and rather densely punctate on mesosternum and lateral portions of metasternum and meso- and metepisterna; metepisterna elongate, a half longer than wide; apical margin of 6th sternite not different between male and female, widely arcuate and quadrisetose.

Legs rather long, femora and tarsi sparsely briefly pubescent; fore tibiae gently slender and not sulcate dorsally, terminal spur lanceolate; tarsi long, mid tarsus of male bearing biseriate adhesive squamae to 4th segment from the 1st, hind tarsus 1.15 times in male and nearly in female as long as the width of head, 1st segment equal in length to the 2nd and 3rd taken together, 2nd 2/5 longer than the 3rd and a little smaller than twice the 4th, claw segment tri- or quadrisetose along each ventral margin.

Aedeagus (Fig. 35) slender, abruptly curved in middle, slightly arcuate ventrally in apical half, not thickened at tip; apical orifice widely opened, inner sac armed with a single

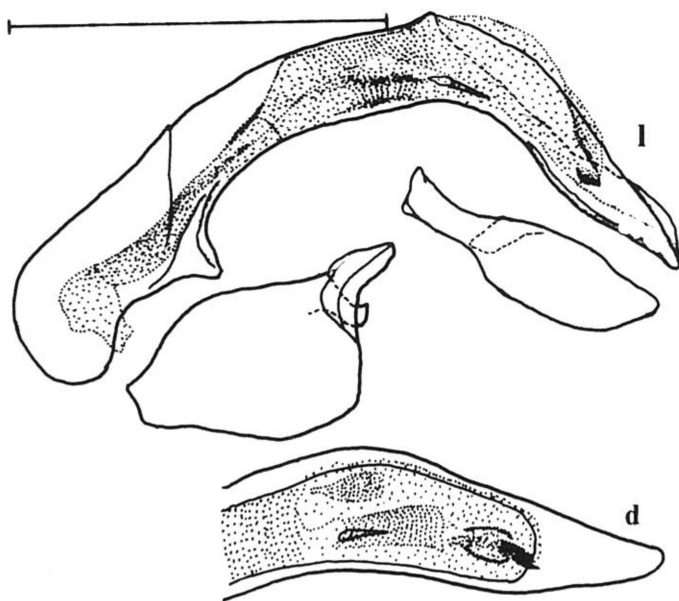


Fig. 35. Male genitalia of *Hyparpalus pakistanensis* sp. nov. — d, dorsal aspect; l, lateral aspect. Scale: 1 mm.

sclerite long, slim and spinous; apical lobe elongate-triangular, rounded at distal margin.

Length: 7.5–8.1 mm. Width: 3.1–3.4 mm.

Holotype: ♂, 70 km S of Lahore, Changa Manga forest, Punjab Prov., East Pakistan, 19–21. VIII. 1998, L. ČÍŽEK & ČERNÝ leg. (preserved in OMNH). Paratype: 5 ♂♂, 3 ♀♀, same data as the holotype (preserved in cNI).

Remarks: This species resembles *Hyparpalus nagpurensis nagpurensis* N. ITO, but the pronotum is more weakly microsculptured and more narrowly rounded at basal angles, the elytra are more weakly aciculate, and the aedeagus is armed with only single longer sclerite instead of three shorter sclerites. Owing to the similarity of aedeagi in shape, those two taxa can be estimated to have a close relationship either in two subspecies of a species or in two sister species. Their cross-pairing may be improbable because of the different number of sclerites in the inner sac, and thus these are regarded as two independent species.

Etymology: The specific name “*pakistanensis*” is taken from the country of the type

locality, Pakistan.

Trichotichnus (Trichotichnus) trusmadiensis N. ITO, sp. nov.
(Figs. 31 and 36)

Body similar in outline to *Trichotichnus (Trichotichnus) septentrionalis* (HABU) from Japan, slightly brownish black, shiny, with iridescent lustre on elytra; labial palpi yellowish brown, labrum, antennae and tarsi light reddish brown, mandibles, tibiae and legs reddish brown, ventral surface a little dark reddish brown.

Head comparatively large, 0.70 times as wide as the pronotal width, gently convex, with interocular space not wide and 0.68 times as wide as the width of head; labrum quadrate, with apex rather deeply and triangularly emarginate; clypeus thin, shallowly emarginate apically; clypeal suture shallow and entire; frontal impressions moderate in depth, shallowed backwards, hardly reaching supraorbital grooves; eyes large, moderately convex; temples short, 0.23 times the eye length; genuine ventral margins of eyes adjoining buccal fissure; 3rd segment of labial palpus more or less dilated in middle, 1/10 shorter than the 2nd; ligula gradually widened forwards, slightly emarginate at apex; mental tooth rounded, epilobes gently widened apicad; microsculpture vaguely and partly observed as transverse meshes.

Pronotum transverse, widest a little before apical 2/5, a half wider than long, gently convex; sides moderately arcuate from apex to middle, then linearly oblique, shallowly sinuate before base; apex shallowly emarginate, with border interrupted at middle; base 1/4 wider than apex, feebly bisinuate, entirely and clearly bordered; apical angles weakly produced, rather widely rounded; basal angles each almost right, with slight tooth at tip; lateral furrows wholly narrow in a line; front and hind transverse impressions very shallow; median line fine, shallow, reduced near apex and base; dorsal punctures minute on disc, a little coarser and denser near apex, rather dense and moderately coarse in basal foveae; microsculpture partly and obscurely visible as transverse meshes.

Elytra oval, 1.48 times as long as wide, gently convex, very sparsely punctulate; sides gently rounded in humeri, subarcuate in middle, rather strongly curved towards apices from apical third, shallowly sinuate preapically; apices weakly produced backwards, widely and weakly rounded at outer margins, narrowly separated to each other; bases each shallowly emarginate, forming an obtuse and sharp angle with lateral border; striae wide and clearly crenulate, scutellar striole long; intervals weakly convex centrally and becoming a little more convex towards apices and bases, right 3rd interval with a setiferous pore and the left one with two pores (maybe abnormal); marginal series wide in spaces of umbilicate pores medially, consisting of (10–11) + 13 pores; microsculptures observable as fine transverse lines. Hind wings fully developed.

Ventral surface mostly smooth, vaguely and sparsely punctate on prepisterna, rather coarsely so on meso- and metepisterna and lateral portions of metasternum; metepisterna

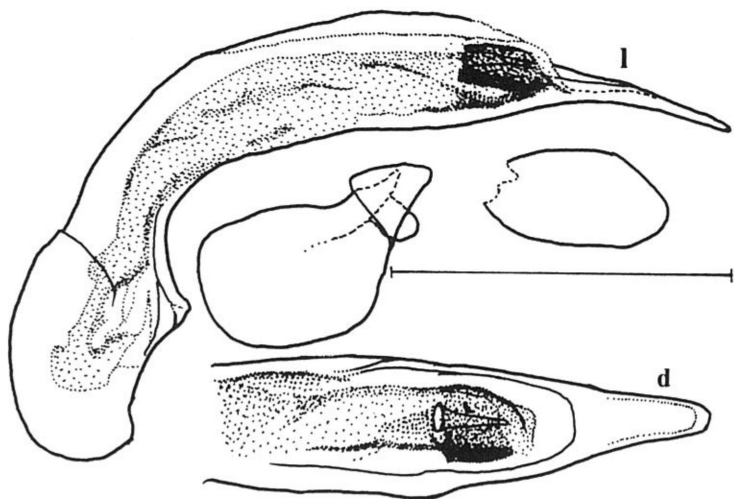


Fig. 36. Male genitalia of *Trichotichnus (Trichotichnus) trusmadiensis* sp. nov. — d, dorsal aspect; l, lateral aspect. Scale: 1 mm.

narrowed posteriad, 1/6 longer than wide; 6th abdominal sternite widely and weakly rounded at apex and bisetose at each side.

Legs more or less long; fore tibiae each trispinous apico-externally, with vague sulcus; tarsi rather short, hind tarsi 1/10 shorter than the width of head, 1st segment 0.85 times as long as the 2nd and 3rd taken together and twice the 3rd which is 4/5 longer than the 4th, claw segment trisetose along inner margin of and bisetose along outer margin of ventral surface.

Aedeagus (Fig. 36) tumid in middle, thin and long at apex; apical orifice open in apical half, inner sac armed with a long peg-shaped sclerite near apex; apical lobe elongate-triangular, 2/3 longer than wide and rounded and bordered at distal margin.

Female unknown.

Length: 8.4 mm. Width: 3.4 mm.

Holotype: ♂, Mt. Trus Madi, Borneo, E. Malaysia, 24–28. III. 1998, T. ITO leg. (preserved in OMNH).

Remarks: This new species is allied to *Trichotichnus (Trichotichnus) septentrionalis* (HABU), but is distinguished from the latter by the head larger, the pronotum more transverse, and the aedeagus bordered at distal margin of apical lobe.

Etymology: The specific name “*trusmadiensis*” is taken from the type locality, Trus

Madi.

要 約

伊藤 昇：アジア産 *Selenophori* group の種について。—— *Selenophori* group の種はアジア全般できわめて多様化しており，多数の種が分布している。筆者は，多数の先輩諸氏や友人のご好意により多数の資料提供を受けており，その中に17新種を見出したので，本稿で記載した。今回の発見により，分布パターンのあらましが明らかになりつつあり，また互いに類似のパターンを示すことが示唆された。それぞれの分類学的処置および分布との関係考察は今後行う。

本稿は，故芝田太一氏にささげるものである。

芝田氏は戦後まもなく返還された奄美大島へいち早く調査に出かけられた戦後の日本昆虫学におけるパイオニアの1人であり，その成果は海外の研究者を中心に多くの論文に記されている。その後，氏の指導を受けたメンバーが沖縄，台湾，マレーシア，ボルネオなどに調査範囲を広げ，その成果についてはご自身のみならず多数の専門家により重要な論文にまとめられた。芝田氏のもうひとつの大きなご功績は，ご研究の傍らで後進の指導・育成に力を注がれ，多くの弟子を育てられた点である。不肖ながら筆者も10歳の時から逝去された昨年まで，昆虫学の基礎の指導は言うに及ばず幼少の折に社会人としての教育・躰を受け，また音楽，文学など広範な面で大きな影響を受けた。筆者にとって，氏はまさに人生の師匠であり，父親であり，あるときは議論をする先輩でもあった。氏の急逝は非常に残念であり，ご生前の昆虫学へのご貢献と筆者の深謝の意から，本稿をささげるとともに，*Oxycentrus taichishibatatai*として献名した。

References

- HABU, A., 1947. On the Japanese species of the genus *Oxycentrus* (Carabidae). *Mushi, Fukuoka*, **18**: 27–28. (in Japanese).
- 1954. Species of the genus *Trichotichnus* (Coleoptera, Carabidae) from Mt. Hiko, Kyushu (The Carabidae-fauna of the Mt. Hiko, VI). *The Bulletin of the National Institute of Agricultural Science, (C)*, **4**: 245–262.
- 1978. *Tenuistilus teradai*, gen. nov. and sp. nov., from Formosa (Coleoptera, Carabidae, Harpalini). *Proceedings of the Japanese Society of Systematic Zoology*, **15**: 51–55.
- ITO, N., 1987. Three new species of the genus *Coleolissus* (Harpalini) from Southeast Asia, with the subgeneric note (Coleoptera, Carabidae). *Entomological Review of Japan, Osaka*, **42** (Supplement): 21–29.
- 1990. Study on Carabidae, II. (Coleoptera). *Entomological Review of Japan, Osaka*, **45**: 81–86.
- 1991a. Study on Carabidae, III. (Coleoptera). *Entomological Review of Japan, Osaka*, **46**: 21–26.
- 1991b. Study on Carabidae, IV. (Coleoptera). *Entomological Review of Japan, Osaka*, **46**: 157–169.

- ITO, N., 1993. Study on Carabidae, VII. (Coleoptera). Species of the genus *Hyparpalus* ALLUAUD (1). *The Entomological Review of Japan, Osaka*, **48**: 161–171.
- 2004. Descriptions of four new species of the Selenophori group (Harpalini: Carabidae) from Asia, including first record of the genera *Coleolissus* and *Hyphaereon* from Laos. (Coleoptera). *The Entomological Review of Japan, Osaka*, **59**: 275–286.
- KATAEV, B., D. W. WRASE et N. ITO, 2003. Subtribe Harpalina. In: LÖBEL, I., and A. SMETANA (eds.), 2003. *Catalogue of Palaearctic Coleoptera*, 1, Archostema – Myxophaga – Adepaga. 819 pp., Apollo Books Publisher, Stenstrup: 367–397.
- SCMIDT-GÖBLE, H. M., 1846. Faunula Coleopterorum Birmaniae I. Coleoptera, Carabidae: viii + 94 pp. + Tab. 1–3.