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NEW OR LITTLE-KNOWN COLEOPTERA FROM JAPAN AND ITS ADJACENT REGIONS. XXXV

By

Takehiko NAKANE* (Received Sep. 10, 1982)

Abstract

Descriptions of seven new species of Coleoptera belonging to Hydrophilidae, Catopidae and Colonidae are given. New taxa described are as follows: Cercyon unipustulatus, Pelthydrus okinawanus (Hydrophilidae); Ptomaphaginus takaosanus, Catops yasudai (Catopidae); Colon hiraii, Colon babai, Colon kishii (Colonidae).

Introduction

In this paper I have treated seven small or minute species of Coleoptera, of which two belong to Hydrophilidae, two to Catopidae and three to Colonidae. Catopidae and Colonidae are considered to be subfamilies of Anisotomidae (=Leiodidae) by some recent authors, but regarded here as families for convenience. The type-series of new species are in my collection unless otherwise noted.

Family HYDROPHILIDAE

Cercyon unipustulatus Nakane sp. nov.

Cercyon unipunctatus var. Sharp, 1884, Trans. Ent. Soc. London, 1884: 459.

Black, with the mouth organs, antennal stalks, palpi, legs (femora usually somewhat infuscate), hind margin of each abdominal sternite reddish or yellowish brown. Pronotum with the front corners and lateral margins narrowly reddish. Elytra yellowish brown, with the sutural intervals blackish and with a large common black patch at middle, which is rhomboid or rounded and often extending forwards. Antennal club blackish or dark brown and densely pubescent.

Oval, strongly convex and shining above.

Head slightly convex, moderately closely and distinctly punctured, with the front margin finely marginate, broadly truncate or feebly sinuate at middle and rounded on both sides.

Pronotum convex, a little more coarsely but somewhat less closely punctured

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T. Nakane

than head. Scutellum small, elongate triangular; surface nearly smooth, with a few fine punctures.

Elytra convex, about 1.3 times as long as wide, widest before middle and rounded-acuminate towards apex; disk distinctly punctate-striate, the striae not so deep even in apical portion and the strial punctures strongly impressed; the intervals slightly convex, distinctly, finely and not so closely punctured.

Under side mostly opaque, microreticulate and minutely pubescent. Prosternum longitudinally costate at middle. Mesosternal plate narrowly fusiform, shining and distinctly punctured. Metasternum with a large pentagonal smooth space in middle, where it is distinctly but not closely punctured. First abdominal sternite finely but distinctly carinate medially.

Body length: 2.6-2.7 mm; width: 1.5-1.6 mm.

Holotype: \$\darkappa, Abiko (Tonegawa), Chiba Pref., Honshu, Japan, 11. v. 1968, M. Shimoi leg. Paratypes: \$\paratypes\$, Abiko (Tonegawa), 21. iv. 1968, M. Shimoi leg.; \$\darkappa\$, Abiko (Tonegawa), 27. v. 1973, M. & K. Isida leg. (from cow dung).

This new species is very closely allied to *C. unipunctatus* Linné from Europe in form and colour pattern, but the elytral striae are more conspicuous with the strial punctures coarser and strongly impressed, and the intervals are less closely punctured. Sharp recorded this from Tomakomai, Hokkaido, as *C. unipunctatus* var.

Pelthydrus okinawanus Nakane sp. nov.

Upper side dark brown, with outer margin of head, pronotum and elytra rather narrowly reddish; under side and legs reddish brown; antennae, palpi and tarsi yellowish brown.

Oval, narrowed from middle to both extremities, strongly convex and shining above.

Head trapezoidal, narrowed to apex, about 1.4 times as wide as long, much narrower than pronotum (26:42), moderatey closely and rather finely punctured, the punctuation finer and shallower in front at middle; clypeus broadly but weakly emarginate in front with both corners angulate; eyes comparatively large, separated by twice their radius. Antennae 8-jointed, shorter than maxillary palpi, which are slender, with the 3rd joint a half shorter than 2nd and the 4th twice as long as 3rd.

Pronotum subtrapezoidal, twice as wide as long, rather strongly narrowed anteriorly, with lateral margins nearly straight and narrowly bordered; front margin very finely bordered; disk more closely and strongly punctured than head and the punctuation denser on both sides; surface smooth without microsculpture. Scutellum small, longly triangular, sparsely and minutely punctured.

Elytra broadest at a third from base, with sides gently arcuate, about 1.2 times as long as wide; lateral margins narrowly bordered and rather strongly reflexed, very minutely and obsoletely crenulate on posterior portion; disk closely punctured as in head and pronotum, the punctures only a little finer than on pronotum, but become

finer and sparser posteriorly; surface smooth except for a small part at apex, where it is finely microreticulate; there is an irregular row of vague round impressions above each lateral margin.

Body beneath largely covered with yellowish pubescence. Mentum subquadrate, shiny, depressed, feebly microreticulate and sparsely punctured. Prosternum opaque, with a very strong costa along middle, which is protruding beyond the front margin in a horn-like projection. Mesosternum triangularly projected forwards beyond mesocoxae, with side margins sharply carinate; disk longitudinally elevated along middle, with a few punctures on both sides. Metasternum broadly but weakly convex in middle, finely punctured and shiny, longitudinally carinate in front at middle. Abdomen rather roughly punctured, with 1st sternite carinate at middle of base. Legs slender, without long hairs except a few at apex of four hinder tibiae.

Body length: 2.8-2.9 mm; width: 1.85 mm.

Holotype: ♂, Haneiji, Okinawa Is., Ryukyus, Japan, 14. ix. 1979, T. Kohama leg. Paratypes: 1 ♂ 1♀, Haneji, Okinawa Is., 14. ix. 1979, H. Suzuki leg. (Holotype in coll. Ent. Lab., Fac. Agr., Ryukyu Univ.)

Present new species may be closely related to *P. sculpturatus* d'Orchymont from Yunnan and *P. ovalis* d'Orchymont from Sumatra in broader form and dark brown colouration. It differs, however, from *P. sculpturatus* in having broadly oval body shape, from *P. ovalis* in having not microreticulate pronotal surface, and from both in having smooth surface of forehead.

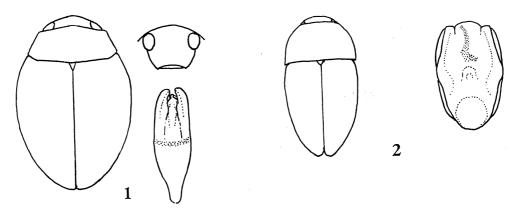


Fig. 1. Pelthydrus okinawanus Nakane sp. n. outline of body above, head and male genitalia.
Fig. 2. Ptomaphaginus takaosanus Nakane sp. n. outline of body above and male genitalia in dorsal view.

Family CATOPIDAE

Ptomaphaginus takaosanus Nakane sp. nov.

Chestnut brown, moderately shining; head, pronotum and spinules of tibiae black, labrum, mouth parts, palpi, antennae, front coxae and tarsi yellowish to light brown.

Body longly oval, moderately convex above; upper surface covered with greyish yellow pubescence and with fine, dense transverse striations, which are evanescent on forehead.

Head strongly transverse, rhomboidal, convex above; eyes small, lateral and subtriangular. Antennae about as long as pronotum; 1st and 2nd joint long, 3rd as long as wide, 4th to 10th more or less transverse, 6th a little longer than 8th, 7th subquadrate and three times as long as 8th, 9th nearly as long as 7th and scarcely longer than 10th, 11th subrounded, as long as wide and obtusely pointed at apex.

Pronotum two-thirds as wide again as long, widest near base; front margin subtruncate, basal margin gently arcuate backwards, but feebly sinuate at sides, lateral margins weakly arcuate, basal angles rectangular with extreme tip pointed. Scutellum triangular.

Elytra a little more than twice as long as pronotum, widest at basal fifth, gently narrowed behind, with each apex subtruncate.

Mesosternum impunctate, strongly carinate longitudinally at middle, with the process sharply pointed at apex. Metasternum rather sparsely and finely punctured on both sides. Abdomen not very closely and finely punctured; anal sternite rather broadly hollowed and impunctate in middle in its whole length. Front tibiae relatively short and dilated to apex. First three joints of male front tarsi strongly dilated as usual in the genus. Male genitalia short and very broad, subquadrate.

Body length: 1.9-2.2 mm; width: 1.0-1.1 mm.

Holotype: 3, Kamikochi, Nagano Pref., Honshu, Japan, 20. vii. 1959, T. Shibata leg. Paratypes: 1312, Takao, Tokyo, Honshu, Japan, 9. vi. 1968, K. Masumoto leg.

In the shape of male genitalia this species can be distinguishable from the congeners known from Palaearctic or Oriental region.

Catops yasudai Nakane sp. nov.

Head black; pronotum blackish brown, with sides obscurely reddish; scutellum dark brown; elytra brown, somewhat infuscate along suture on front half, base of antennae, palpi and mouth parts testaceous; five apical joints of antennae dark brown, with apical half of terminal joint yellowish; legs brown, with femora infuscate and front tarsi yellowish. Under side blackish brown.

Elongate, rather depressed and subshining above, covered with yellowish recumbent hairs.

Head gently convex, closely and finely punctured; eyes small and lateral. Antennae slender, with the apex getting beyond base of pronotum; 1st joint elongate, 2nd shorter than 1st, 3rd not quite as long as 1st but slenderer, 4th to 6th progressively diminishing their length, 7th as long as 5th, slightly thickened, 8th small, transverse, half as long as 7th, 9th and 10th a little transverse, slightly shorter than 7th, 11th bud-shaped, as long as 1st.

Prothorax broader than long (62:39), widest behind middle; front margin slightly

arched-emarginate, basal margin very slightly bisinuate, sides rounded behind middle, inconspicuously sinuate before hind angles, front angles rounded and basal ones obtusely but distinctly angulate; disk gently convex, closely granulate-punctate and somewhat transrugose. Scutellum elongate triangular.

Elytra oblong ovate, rather broadly depressed medially before middle, widest at basal third, closely granulate-punctate, without opalescence, sutural stria well-marked, but not reaching scutellum, sutural interval narrowed and somewhat costate along margin posteriorly.

Under surface finely, shallowly and closely asperate-punctate. Front femora without tubercles beneath; front tibiae moderately thickened, narrowed to base, obliquely subtruncate at apex, front tarsi with three proximal joints dilated, basal joint of middle tarsi a little thickened, middle tibiae gently curved.

Body length: 3.3 mm; width: 1.6 mm.

Holotype: 3, Mt. Daisetsu, Hokkaido, 10. vii. 1976, N. Yasuda leg.

This species is closely related to *C. nigrita* Erichson from Europe in the body structure and in the shape of male genitalia, but the body is not wholly black and the apical part of male genitalia is much stouter than that of *C. nigrita*.

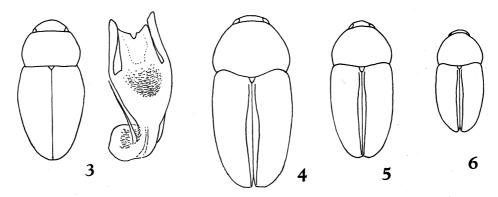


Fig. 3. Catops yasudai Nakane sp. n. outline of body above and male genitalia showing shape of apical portion.

- Fig. 4. Colon hiraii Nakane sp. n. outline of body above.
- Fig. 5. Colon babai Nakane sp. n. outline of body above.
- Fig. 6. Colon kishii Nakane sp. n. outline of body above.

Family COLONIDAE

Colon (Myloechus) hiraii Nakane sp. nov.

Dark chestnut brown, with palpi, labrum, basal and terminal joints of antennae, and tarsi more or less reddish.

Elliptic, rather strongly convex and subshining above, covered with moderately long yellowish recumbent hairs.

Head small, gently convex, finely, closely punctured, the interspace of punctures

T. Nakane

smooth, with an arcuate transverse stria on the hind margin of vertex; clypeus truncate in front; eyes prominent, rather finely facetted; distance between eyes twice as long as the diameter of an eye when seen from above. Antennae shorter than pronotum, stout; 1st joint subcylindric, not much longer than wide, 2nd similar but shorter and narrower than 1st, very little longer than 3rd, 3rd slender, feebly widened apically, 4th as long as wide, a half shorter than 3rd, 5th to 7th transverse, becoming progressively wider, 8th to 11th forming an elongate club, which is as long as 1st to 7th combined together, 8th nearly twice as wide as long, 8th to 10th subequal, 11th narrower and a little longer than 10th, hardly transverse and rounded at apex.

Pronotum more than twice as wide as head (60:25), a third as wide again as long, apical margin subtruncate, front angles obtusely rounded, sides widest at basal fifth, then strongly converging forwards, hind angles obtuse but distinct, base slightly sinuate on both sides, plainly produced in middle, with a weak emargination on each side of median lobe; disk rather strongly convex, surface deeply and densely punctured. Scutellum suboval, a little longer than wide, minutely granulate or shagreened.

Elytra 1.4 times as long as wide, about twice as long as and as wide as pronotum, widest at about basal third, humeral angles obtuse, subrounded; sides slightly arcuate, border invisible from above; each elytral apex rounded; disk moderately convex, surface closely granulate-punctate, sutural stria distinct but fine, discal striae only distinct at apex, lateral furrow conspicuous by the reflexed margin. Wings developed. Pygidium rounded at apex.

Prosternum very short, rather narrow, punctured along hind margin; propleura broad, moderately closely punctured except hollowed posterior area. Mesosternum minutely granulate or shagreened in front with a smooth median longitudinal carina, mesosternal process strongly elevated behind and the elevation prolonged forwards in a pair of parallel carinae, which are divergent at apex. Metasternum strongly convex, finely and closely punctured on median part, closely and more coarsely covered with elongate punctures on lateral area, leaving a triangular impunctate space in front of metacoxae on each side. Metepisternum long, a little widened posteriorly, finely closely punctured. Abdominal sternites very finely punctured; 1st sternite with a sharply pointed intercoxal process. Front femora dilated, oblong; middle femora somewhat narrower than the front; hind femora strongly dilated, with inner apical angle triangularly projected and pointed. Front tibiae stout, slightly curved in basal half, with shrot erect spines along apical half of outer border and with two strong terminal spurs of unequal size; middle tibiae simple, with two terminal spurs; hind tibiae stout, arched, slightly widened to apex, with two apical spurs. Front tarsi a little dilated in basal two or three joints; four hinder tarsi slender.

Body length: 4.0 mm; width: 1.8 mm.

Holotype: &, Ikuhina-mura, Tokushima Pref., Shikoku, Japan, 16. v. 1953, M. Hirai leg.

This species somewhat resembles C. (s. str.) malaisei Szymczakowski from N.

Burma in the shape of front tibiae and hind femora, but the body is larger, the prothroax is more expanded, the hind femora are stouter, the front tibiae are slightly but distinctly bent at base and the basal joints of front tarsi are a little more dilated.

Colon (Myloechus) babai Nakane sp. nov.

Chestnut brown, with palpi, claws and front tarsi yellowish, and mouth parts, five basal and four terminal joints of antennae, front coxae, femora and abdomen reddish brown.

Body elliptic, rather strongly convex and moderately shining above, thickly covered with recumbent, rather long pale yellow hairs.

Head small, gently convex, smooth, finely and closely punctured; clypeus subtruncate and rather thickly bordered in front; eyes prominent, rather finely facetted, separated by nearly twice of their long diameter dorsally. Antennae shorter than pronotum, stout, with 1st joint comparatively short, somewhat globular, 2nd smaller than 1st, shorter and scarcely longer than wide, 3rd nearly as long as 2nd, but slightly narrower, 4th as long as wide, shorter than 3rd, 5th transverse, 5th to 7th progressively widened, 8th to 11th forming a large club, which is fully as long as seven basal joints combined, 8th about half as wide again as long, 8th to 10th similar in shape and size, 11th a little narrower but longer than 10th with apex rounded.

Pronotum 2.1 times as wide as head, 1.4 times as wide as long, widest at basal third; front margin feebly arched forwards in middle, front angles obtusely rounded, not visible from above; sides rounded, basal angles obtuse in profile, base weakly bisinuate; disk rather strongly convex, very densely and strongly punctured, the interspace of punctures smooth. Scutellum triangular, finely and closely punctured.

Elyra a half as long again as wide, about twice as long as and nearly as wide as prothroax, widest at basal third or fourth, subparallel-sided in front half, gradually narrowed to rounded apex in apical half; humeral angles evident but obtuse, with a minute denticle; sides not strongly arcuate, narrowly bordered, invisible from above;

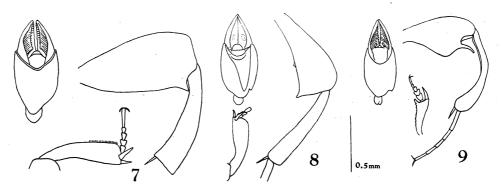


Fig. 7. Colon hiraii Nakane sp. n. male genitalia, front tibia and tarsus, and hind femur and tibia.

Fig. 8. Colon babai Nakane sp. n. male genitalia, front tibia, and hind femur and tibia.

Fig. 9. Colon kishii Nakane sp. n. male genitalia, front tibia and tarsus, and hind leg.

108 T. Nakane

each elytral apex situated near suture, rounded; disk moderately convex, depressed along suture, the sutural stria well-marked and entire; surface closely punctured, somewhat granular, the interspace almost smooth. Wings developed. Pygidium simply rounded at apex.

Prosternum short, with a median part triangularly surrounded by fine carinae; propleura broad, shallowly punctured in front, hollowed and almost smooth posteriorly. Mesosternum with a longitudinal carina in front of middle and an elongate elevation, which is suddenly strongly broadened anteriorly and deeply concave behind frontal carina, finely and somewhat granulate-punctate; mesepisterna triangular. Metasternum closely and moderately strongly punctured, hairy; metepisterna four times as long as wide, about two-thirds as wide as elytral epipleura at middle, punctured as in metasternum. Epipleura broad, punctured and hairy, somewhat granulous in front. Abdominal sternites finely and closely punctured. Front and middle femora simple; hind femora triangular, with inner apical angle sharply pointed and with a small but sharp tooth at apical third of inner border. Front tibiae twice as long as tarsi, rather strongly dilated apically, with outer border arched and inner border bent inwards at basal fourth, the terminal spurs strong and outer apex rounded; middle tibiae gently widened towards apex, with outer margin slightly arched and inner margin straight with two spurs at apex; hind tibiae elongate, weakly curved. Front tarsi slightly dilated in basal three joints; middle and hind tarsi slender.

Body length: 3.2 mm; width: 1.5 mm.

Holotype: &, Sasaguchihama, N. Echigo, Niigata Pref., Honshu, Japan, 9. vii. 1957, K. Baba leg.

This new species is allied to the preceding species in the body form and the shape of hind femora, but the body is smaller, the front tibiae are distinctly arched with the inner margin markedly emarginate near base and the basal joints of hind tarsi are more visibly dilated.

Colon (Myloechus) kishii Nakane sp. nov.

Chestnut brown, with palpi, antennae (except 5th to 7th joints fuscous) and front tarsi yellowish red-brown.

Body elliptical, rather strongly convex and moderately shining above, thickly covered with relatively long recumbent yellow hairs.

Head small, gently convex, finely and closely punctured, the interspace smooth; a distinctly impressed line present along hind margin of vertex; clypeus truncate in front; eyes not strongly prominent, rather finely facetted, the distance between eyes about twice as long as the long diameter of eyes in dorsal view. Antennae slightly shorter than pronotum, stout; 1st joint large, 2nd distinctly shorter and narrower than 1st, about as long as 3rd, 3rd slender, a little widened to apex, 4th a little longer than wide, shorter than 3rd, 5th to 7th transverse, progressively becoming wider, 8th to 11th forming a large club, which is barely shorter than the 2nd to 7th combined together,

8th not quite twice as wide as long, 8th to 10th subequal in shape, 11th narrower and about as long as 10th, subtruncate at apex.

Pronotum 1.9 times (58:30) as wide as head, 1.3 times (58:44) as wide as long, widest at basal fifth, then strongly converging towards apex: front angles rounded and invisible from above, basal angles obtuse in profile, base strongly sinuate on both sides; disk rather strongly convex, deeply and densely punctured and partially somewhat transrugose, the interspace of punctures almost smooth. Scutellum triangular, of moderate size, finely and closely punctured.

Elytra 1.4 times as long as wide (80:58), 2.2 times (80:36) as long and 1.1 times (55:52) as wide as pronotum, widest at basal third; sides not strongly arcuate, narrowly bordered, with bordering only visible at base from above; each elytral apex situated near suture, relatively narrowly rounded; disk convex, but weakly depressed along sutural stria, with nine rows of fine punctures on each elytron which are obscured by granulate punctures on intervals. Wings developed. Pygidium simply rounded at apex.

Prosternum short, with a transverse carina along middle; propleura broad, shining, with front and lateral areas minutely punctured. Mesosternum with a short longitudinal carina at middle in front and an elongate elevation behind, which is suddenly and strongly widened anteriorly and deeply concave behind frontal carina. Metasternum strongly convex, pubescent, deeply, rather coarsely and not densely punctured on lateral areas; metepisterna six times as long as wide, at middle about two-thirds as wide as epipleura of elytra, the punctures finer than those at sides of metasternum. Elytral epipleura broad, wholly granulate. First abdominal sternite minutely aciculatepunctate, with a sharp intercoxal process. Coxal plate of hind legs well developed, almost smooth on anterior half, punctured on apical half. Front femora thickened; middle femora simple; hind femora triangular, armed with a strong curved tooth at apical fourth of inner border. Front tibiae 1.3 times (32:24) as long as tarsi, narrow at base and rather strongly dilated to apex, with outer border nearly straight, crenulate and ending in a strong triangular tooth bent downwards, and inner apex bearing a curved spur and a shorter one; middle tibiae gently widened towards apex with a pair of terminal spurs, which are slender; hind tibiae elongate, very strongly curved, with two spurs at apex. Front tarsi with basal three joints markedly dilated.

Body length: 2.3 mm; width: 1.1 mm.

Holotype: 3, Shiroyama, Kagoshima-shi, Kyushu, Japan, 2. v. 1978, Y. Kishi leg. This species is very closely related to *C. japonicum* Hisamatsu from Hagi, Honshu, but differs from the latter in the shape of hind femora and of male genitalia.

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