Some New Forms of Elateridae in Japan (VI)<br>By<br>Takashi KISHII

Reprinted from<br>BULLETIN OF THE HEIAN HIGH SCHOOL KYOTO, JAPAN

No. 14, September 1969

# Some New Forms of Elateridae in Japan (VI)* <br> By <br> Takashi KISHII <br> (Heian High School, Kyôto, Japan) 

In this series, I wish to describe new forms of the family Elateridae from Japan and its adjascent regions and to report some knowledge about it.

As for present paper, 4 species and 4 subspecies are described newly to science as follows.

Before going further, I want to express my cordial thanks to Mr. Taichi Shibata in Ôsaka city and Mr. Kôzô Mizuno in Uji city, for their courteous helps given during the course of my studying in offering the precious samples of snapping beetles.

All the specimens including the types of new forms are preserved in the writer's collection, with the exception of some examples having a conspicuous preserving position in the following description of this paper.

Hypolithus (Hypnoidus) motschulskyi kongoensis subsp. nov. (Plate I, figure 6)

The present new subspecies from Mt. Kongô-zan (alt. 1112 m .) (nominal subspecies: Corymbites motschulskyi Fleutiaux, 1902, Bull. Mus. Nat. Hist. Paris, p. 22, Japon central), at once, may be divided from the other subspecies of motschulskyi by the combination of following features.

1. Body measurements $9.3 \times 3.3 \mathrm{~mm}$. in male.
2. General body outline gourd-shaped plainly.
3. Subnitid, brownish red to black wholly except of head, pronotal disc, most parts of elytra, prosternal disc, and of central area of abdominal basal 3 segments more or less darker in colour.
4. Antennal proportion in each joint $2<5<4<3$ in male.
5. Pronotal lateral sides feebly expanded outwards.

* I. AKITU, Vol. IV, No. 4, pp. $77 \sim 82$, 24 figs., 1955
II. AKITU, Vol. V, No. 1, pp. 17~20, 8 figs., 1956
III. Entom. Rev. Japan, Vol. VIII, No. 1, pp. 10~12, 17 figs., 1957
IV. Bull. Heian High School, No. 10, pp. 1~11, 9 figs., 1966
V. Bull. Heian High School, No. 13, pp. 49~63, 30 figs., 1968

6. Pronotal median length certainly longer than width.
7. Pronotal punctures fine, rather dense, progressively larger, denser and coarser laterally.
8. Pronotal hind angles scarcely divergent outwards.
9. Elytral intervals among punctures rugose traversely.

Described from a male holotype, Mt. Kongô-zan, Ôsaka prefecture, June 7, 1964, N. Ôtani leg.

In the general outline this new subspecies is closely related to the subspecies mutsuurai Nakane or ontakecola Kishii, though kongoensis may be separable by the 3rd antennal joint near 1.5 times as wide as 4th, longer pronotum, divergent prothoracic hind angles etc. Moreover, although, Hypolithus(Hypnoidus) brunneofuscus Nakane in also allied intimately to it in body appearances, this new snapper has the degenerate metawings in place of the perfect ones in brunneofuscus.

## Harminius (Diacanthous) undosus ontakeanus subsp. nov.

 (Plate I, figure 3)This new subspecies from Mt. Ontake-san (alt. 3063 m .) in southern region of the North Japan Alps, of which nominal subspecies: Athous undosus Lewis, Ann. Mag. Nat. Hist., XIII (6), p.256, (1894) (Mt. Niohôzan at Nikkô): -inhabits from high mountains of Honshû and Hokkaidô, may be established a distinction among the other subspecies of undosus by the combination of following characteristics.

1. Body measurements $19.0 \times 5.5 \mathrm{~mm}$. in female.
2. Pubescence distinctly dense, long and greyish.
3. Pronotal lateral sides clearly jutting out medially, thence straightly narrowing anteriorly as well as posteriorly.
4. Pronotal disc having a medio-longitudinal smooth line conspicuously, more or less carinate partially.
5. Elytra black entirely.
6. Elytral pubescenceless fasciae narrow certainly.

Described from a female holotype, Mt. Ontake-san, Gifu prefecture, August 3, 1966, T. Okutani leg.

In the black elytra and narrow fasciae present new subspecies may be easily separable from the samples of the other localities.

## Hemicrepidius (Pseudathous) okadomei Ohira, status nov.

Hemicrepidius (Pseudathous) secessus okadomei Ohira, Bull. Japan Ent. Acad., Vol. II, No. 2, p. 11, 1966, Is. Kuchi-no-erabu.

In 1966, Dr. H. Ohira described okadomei as a subspecies belonging under Hemicrepidius (Pseudathous) secessus Candèze, 1873, though, I think, this Elatridbeetle is undoubtedly an available species, and it may be readily separated from secessus by the combination of its salient features as following.

1. Body voluminous and subcylindrical.
2. Elytral surface having purplish lustre inclining to bronzy tint.
3. Legs usually brownish red.
4. Frontal margin strongly upheaved upon each antennal scrobe, longitudinally smooth conspicuously.
5. Pubescence always fulvous and dense.
6. Front certainly foveolate medio-longitudinally and shallowly impressed laterally.
7. Pronotal punctures distinctly dense, irregular in size and density, strongly set wholly, progressively denser and finer towards lateral borders.
8. Carination of each pronotal rear corner very short, obsolescent surely.

Recently, I had fortunately a chance to get and examine some examples of this species from Is. Yaku-shima and Is. Amami-ôshima. And according to the researching about them, I describe here newly two subspecies of okadomei and their different characteristics from the typical subspecies as under.

Hemicrepidius (Pseudathous) okadomei yakuensis subsp. nov.
(Plate I, figure 4)
Body shorter ( $13 \sim 15 \mathrm{~mm}$.) in length. Anterior angles of pronotum, scutellum, elytra entirely, and antennae mostly black instead of reddish brown perfectly or partially. In isotype abdominal sternites mostly black (ab. form. kurohara nov.).

Described from a male holotype, a male isotype, and a female allotopotype, Kosugi-dani valley in Is. Yaku-shima, Kagoshima prefecture, July 28, 1968, H. Nara leg.

Hemicrepidius (Pseudathous) okadomei amamicola subsp. nov.
(Plate I, figure 1)
Body measurements $15.5 \times 4.0 \mathrm{~mm}$. Pronotum entirely red exception of lateral margins black narrowly. Antennae and legs black perfectly. Pronotal punctures rather small in size and a little sparse.

Described from a male holotype, Hatsuno in Is. Amami-ôshima, Kagoshima prefecture, April 2, 1966, H. Nara leg.

## Heteroderes inexpectatus sp. nov.

(Plate II, figure 1)
Male, $7.4 \times 2.1 \mathrm{~mm}$., flattened above as well as beneath in longitudinal profile, elongate, parallel-sided clearly, rather opaque. Yellow inclining to orange exception of black eyes and frontal edge, brown head and mouth parts, and of more or less darker scutellum, prosternal process, pronotal lateral margins, propleura, prosternum, mesosternum and metasternum. Pubescence comparatively long, very dense wholly, yellowish white, recumbent, velvety distinctly.

Head broader than length medially, slightly convex above, having a shallow depression on summit; punctation simple, double sized, larger punctures sparse on vertex, progressively denser to anterior border, smaller ones very dense on central area, sparser toward front, interstices among punctures smooth; frontal margin gently rounded ahead, well carinate and defined. Epistome narrow, horizontal entirely, flat, a little widened outwards, scabrously shagreened; antennal scrobes small, concave, moderately limited laterally. Labrum subtrapezoid, perpendicular, weakly convex ahead, punctures coarse and irregular in density and size. Antennae slender, short, failing to reach tips of rear angles of prothorax by about each apical one joint; each 4th segment to 10th elongately triangular, progressively diminishing in length meagrely; each basal segment large, stout, the longest, plainly longer than next two joints combined together; each 2nd joint and 3rd subcylindrical, twice as long as width, subequal in size and form, the shortest; each 4th nearly 1.5 times as long as 3rd and a little broader; apical joints elongate rhombic.

Pronotum (rear angles excluded) distinctly longer than width, lateral margins parallel from tips of hind corners to beyond the middle, thence gradually converging roundly ahead; disc moderately and simply convex above; basal slope gentlepitched; posterior margin elevated upwards medially, having a pair of very small inconspicuous sulci near bases of rear corners; punctation similar to that of head summit, but more regular in density and not so coarse; interstices among punctures smooth perfectly; hind corners parallel-sided each other, not divergent outwards, each tip rather pointed obtusely with a long setigerous hair, unicarinate conspicuously.

Scutellum broad tongue-shaped, a little upheaved, hind apex ill-pointed posteriorly, very finely punctured densely.

Elytra slightly elevated upwards in longitudinal profile, as wide at humeri as prothorax; sides parallel from behind humeri to rear $2-3$ rds, thence gradually narrowing to apex; tips entire; striae distinct, strial punctures longitudinal and large; intervals among striae rather flat, very finely granulated sparsely, interstices
among granules partially shagreened minutely.
Prosternum ordinarily convex below medio-longitudinally behind fore rim to base of process, punctures double like those of pronotal disc, but large punctures comparatively denser, smaller ones sparser and more irregular in density, intervals among punctures smooth perfectly; frontal rim obliquely bent antero-downwards, margin well limited, punctures single, rather large, dense; sutures nitid, gently, widened forwards each other, each one closed entirely, semidouble, slightly outcurved at rear end, incurved weakly at frontal extremity; process suddenly concave inwards behind procoxal cavities, thence straightly extending backwards, tip roundly ended having a small sharp knob-like projection near apical under surface. Propleura flat, elongately triangular; each hind margin plainly projecting medially; punctation single, large sized, simple, very dense but progressively more minute rearwards, interstices among punctures shagreened. Mesosternal cavity narrow, subparallelsided, meagrely expanding outwards medially, rear end emarginate clearly. Metasternum moderate, irregularly punctulate densely. Hind coxal plates strongly widened backwards near each base, outer ends narrow.

Legs long, stout; tarsal segments lst~4th progressively diminishing in length; each lst metatarsal joint plainly shorter than next 2 combined together; 4th the shortest, certainly lamellar apically.

Described from a male holotype, Ami-mati town near the westernmost side of Kasumi-ga-ura lake, Ibaragi prefecture, August 16, 1962, Y. Kimura leg.

This new Heteroderes-species may be easily separable by the body colouration and the measurements from the known members of this genus from Formosa and the circumference. Heteroderes species has hitherto not been recorded from Japan.

## Procraerus shibatai sp.nov.

(Plate II, figure 2)
Male, $2.8 \times 0.7 \mathrm{~mm}$. (holotype) and $3.3 \times 0.8 \mathrm{~mm}$. (isotype), slender, very elongate, parallel-sided, subcylindrical, feebly depressed above in longitudinal profile on elytra, subopaque wholly. Dusky yellowish inclining to reddish brown partially. Antennae and legs more or less paler than body general colouration. Eyes blackish. Head dark reddish brown distinctly with the exception of bright reddish yellow front. Pronotal disc elytral sutures and the circumference broadly, metasternum, and abdominal sternites more or less darker than general colouration (especially conspicuous in isotype). Pubescence long, semierect, yellowish, not so dense.

Head broad, simply convex above hemispherically, having no excavation, clearly declivous antero-downwards obliquely; front vertical, flat; punctures plainly ocellate, large, regular in size on disc, progressively more irregular on frontal area, very
dense otherwise set like tortoise-shell pattern each other clealy, interstices among punctures visible only partially, smooth. Frontal margin well-defined, roundly projecting downwards, carinate distinctly, sinuous clearly before eyes. Epistome flat, a little broader than leagth, coarsely granulated. Antennal scrobes triangular, wide, very shallow. Labrum semicircular, roundly convex ahead feebly, sculptured coarsely. Antennae conspicuously elongate, exceeding tip of each pronotal rear corner by 3 apical joints or more; basal joints robust, voluminous, having an acute carination on anterior surface; 2nd bulbous, faintly longer than width; 3rd the smallest, obconic, meagrely shorter than 2nd, but subequal in width; joints 4 $\sim 6$ each with an obsolescent medio-longitudinal acute carination on dorsal surface only; 4~10 ill-serrated, progressively diminishing in length; 4th elongately triangulate, the longest, certainly longer than preceding 2 joints combined together, twice as long as wide or more; 5th rather trapezoid, a little shorter than 4th, nearly as long as 2 nd and 3rd put together; apical joints elongate ellipsoid, subequal to 4th in length.

Pronotum just longer than space between tips of rear angles, simply convex above, having no impression on disc; sides straight in upper views, feebly narrowing ahead from tips of rear corners to anterior ones, lateral margins arcuate before bases of hind angles gently in taking a side-view, thence extending straightly to under sides of eyes; punctures similar to those of head, but a little larger in size; basal slope gentle, narrowly impunctate along hind margin, having a small acute incision near base of each rear corner; hind angles feebly divergent outwards, rather acutely pointed backwards, unicarinate clearly.

Scutellum tongue-shaped, scantily upheaved longitudinally, roundly ended behind, slightly emarginate at anterior margin, minutely granulated sparsely.

Elytra at humeri a trifle broader than space between apices of hind prothoracic angles; sides subparallel to near middle, thence gradually converging roundly to apex which is bluntly ended; striae deeply punctulate, intervals among striae flat, sparsely granulate finely, interspaces among granules smooth perfectly.

Prosternum strongly convex beneath medio-longitudinally behind anterior border to base of process, the narrowest behind middle, thence distinctly diverging antero-outwards substraightly, as well as rearwards short; anterior lobe strait, flat, certainly protruded antero-downwards, margin rounded, well-carinate, depressed traversely behind rim narrowly; punctures umbilicate, irregular in density, sparse, but a little denser laterally, intervals among punctures smooth; sutures distinctly double, closed entirely, smooth; process straightly narrow, obliquely bent posteroinwards behind procoxal cavities, thence declivitously extending backwards. Propleura elongate triangle, comparatively flattened; punctures sparse, countable, large, more irregular than those of prosternum in density and size, intervals
among punctures smooth entirely; rear border broadly impunctate, shagreened minutely. Mesosternal cavity deep, sided elliptically, declivous antero-downwards, horizontal behind. Metasternal punctures fine, not so dense. Metacoxal plates strongly enlarging backwards near each base, outer ends acute. Abdominal punctures similar to those of metasternum.

Legs moderate, slender.
Described from a male holotype, Kosugi-dani valley in Is. Yaku-shima, Kagoshima prefecture, July 14, 1967, K. Tsumura leg., and from a male isotype, ditto, Y. Kuzugami leg. Holotype is deposited in the collection of the author, and isotype is of Mr. T. Shibata.

Among the japanese Procraerus-species, this new minute elaterid-beetle is the smallest and the slenderest. Somewhat it is related with Procraerus helvolus Candèze, though the elongate antennae and the darker colouration of body in this species may be separable each other.

## Ampedus (Ampedus) yaku sp. nov.

(Plate I, figure 2)
Female, $9.5 \times 2.4 \mathrm{~mm}$., elongate about 4 times as long as wide, rather slender, depressed above as well as beneath in longitudinal profile, parallel-sided clearly; subshining. Head and pronotum pitchy black surface of thorax, scutellum, coxae, and basal 3 ventral sternites black inclining to red, antennae, legs and elytra dull reddish brown except of sutural interstices more or less infuscate. Pubescence golden yellow, long, dense preferably, semierect.

Head broad, simply convex above on vertex, thence gradually declivous roundly antero-downwards; punctation rather sparse, simple, irregularly set comparatively; intervals among punctures smooth; frontal margin well-carinate, roundly projecting downwards, feebly upheaved before eyes. Epistome narrow, imperfectly conglutinate medially to frontal carina; antennal scrobes shallow, triangular, rugose. Labrum vertical, convex above slightly, sparsely punctulate irregularly. Antennae ill-serrated from 4th to 10th, rather filiformed, hardly exceeding tip of each prothoracic hind corner by apical joint; basal joints stout; each 2nd joint semiclavate, the shortest, a little longer than width; 3rd subconical, slightly longer than 2nd in length, subequal in width, 1.5 times as long as breadth or more; 4 th the longest, subequal to total length of preceeding 2 joints combined together; 5th weakly shorter than 4th; apical joints elongately rhombic, subequal to 4th in length.

Pronotum (hind angles excluded) feebly wider than length, simply convex above slightly, having no median impression nor elevation; subparallel-sided behind
middle, thence rather straightly narrowing ahead; punctures exceedingly fine, sparse, shallow, a little coarser laterally, intervals among punctures smooth entirely; basal slope gently declivous postero-downwards, surface near hind margin almost smooth, not punctate perfectly, having no sulci near base of each rear corner; posterior angles unicarinate, slightly diverging outwards, tips not acute but elongately protruded backwards.

Scutellum typical tongue-shaped, declivous obliquely antero-downwards, scantily elevated upwards medio-longitudinally; punctures few, faint; fore edge meagrely depressed; posterior tip round.

Elytra elongate, nearly 2.9 times as long as breadth, depressed above in longitudinal profile, about 3.2 times as long as length of prothorax; as wide at humeri as span of pronotal posterior corners; sides parallel-sided certainly from humeri to behind middle, thence narrowing conjointly backwards; apex entire; striae delicate, partially evanescent, faintly punctulate; strial intervals flat distinctly, very minutely punctulate sparsely, clearly rugose transversely, in special distinct at basal half.

Prosternum tumid medio-longitudinally from behind anterior lobe to base of process ; fore margin round, declivous antero-downwards, coarsely punctulate irregularly; punctures very sparse, fine, single, interstices among ones smooth entirely; sutures double, briefly foveolate plainly at anterior extremities, feebly incurved medially; mucro obliquely bent postero-inwards behind procoxal cavities, thence straightly extending backwards, apex obtusely pointed, having a small excavation on under surface near apex. Each propleura flat, rather elongately fusiform; punctures larger and denser than those of prosternal disc; hind border plainly excavate widely, punctateless completely, having faint longitudinal creases; rear edge emarginate distinctly. Mesosternal cavity deep, fusiform, horizontal at anterior half, thence obliquely declivous postero-downwards. Metasternum ordinary, punctures denser than those of prosternal disc. Metacoxal plates expanded rearwards at inner one 3rd; outer ends acute. Punctures on abdominal segments finer than those of metasternum, similar to in density.

Legs preferably slender, elongate, tarsi moderate.
Described from a female holotype, Hana-no-ègô (alt. ca. 1900 m .) in Is. Yakushima, Kagoshima prefecture, July 14, 1961, K. Uéda leg.

In the body colouration and the elytral proportion, this new species, according to the literature, perhaps should be placed near Elater longipennis and E.galloisi of Miwa in 1934, though colouration of antennae and legs, and the aspect of pronotal punctures are briefly separated each other.

## Ectamenogonus miyako sp. nov.

(Plate I, figure 5)
Female, $13.0 \times 3.8 \mathrm{~mm}$., elongate ellipse, stout, weakly convex above in longitudinal profile, parallel-sided certainly; well nitid wholly. Black inclining to red; antennae duskily, pronotal fore margin narrowly, pronotal rear corners clearly, elytral humeri faintly, elytral apices broadly, legs entirely and distinctly, and body under surface partially reddish. Pubescence fulvous, semierect, normally long, not so dense.

Head vertex simply upheaved gently, not so broad, obliquely declivitous anterodownwards, frontal border roundly jutting out, rather perpendicularly; punctures a little dense, single, preferably irregular in density; frontal edge well-defined. Eyes large, hemispherical, protruded outwards. Epistome strait, conglutinate medially to frontal carina; each antennal scrobe broad, excavate plainly. Labrum elongate-traversely, convex forwards, punctures similar to those of head. Antennae short, failing to attain to tips of hind corners by each one apical joint; filiformed comparatively or ill-serrated from 4th to 10 th which are diminishing progressively in length and being lax in serration; basal joints robust; each 2 nd the smallest, clavate, slightly longer than width; each 3rd elongately triangular or semiclavate, nearly 1.5 times or more as long as breadth, about 1.5 times as long as 2nd; each 4th elongate lax triangle, certainly longer than 5th, a little shorter than total length of preceding 2 joints combined together; apical joints elongately rhombic, longer than 10th.

Pronotum (hind angles included) subequal to breadth in length, gently convex above hemispherically, having a conspicuous medio-longitudinal channel, shallow anteriorly; sides parallel from behind middle to each base of rear corners, thence rather straightly narrowing forwards; punctures single, more regular and sparser than those of head, gradually dense and coarse antero-laterally, interstices among punctures smooth perfectly; hind angles very meagrely divergent outwards at bases, tips extending backwards briefly, bicarinate certainly, intermediate carinae obsolescent partially; basal slope gentle, simple, having no sulci near each base of rear corners.

Scutellum elongately subpentagonal, slightly declivous ahead, flattened above; sides a little incurved beyond middle; anterior edge feebly upheaved medially; apex roundly pointed backwards; punctures sparse, single; anterior rim minutely and narrowly creased traversely.

Elytra at humeri about as wide as distance across pronotal hind angles, less than 2.4 times longer than wide; sides parallel from humeri to apical 2-5ths, thence gradually converging roundly to each apex which is normal; striae distinct,
deeply punctulate; strial intervals flat, punctures irregular, coarse, more minute than those of pronotal disc, plainly rugose transversely at basal half of each elytron.

Prosternum feebly convex beneath medio-longitudinally from behind anterior rim to base of mucro; fore lobe ordinary, obliquely bent antero-downwards, scantily punctulate; punctures very fine, sparse, single at middle, gradually larger and denser laterally; sutures double certainly, foveolate clearly at each anterior extremity, substraight; process gently bent inwards behind procoxal cavities, thence straightly extending backwards, having a small excavation near apex. Each propleura moderate, flat concave distinctly at hind corner; punctures deep, dense, strongly set, longitudinal-formed, sometimes conglutinate each other sectionally, at hind angle creased longitudinally instead of covering with punctures. Mesosternal cavity elongately fusiform, horizontal at anterior half, declivous postero-downwards at another half. Metasternum moderate, punctures very large, dense exceedingly. Each metacoxal plate conspicuously unidentate backwards near inner 2-5ths of rear margin; outer extremity acute. Ventral sternites ordinary, punctures very dense, large, longitudinal, strongly set, gradually sparser and more minute laterally.

Legs normal, stout.
Described from a female holotype, Hiyoshi shrine in Higashiyama, Kyôto city, August 21, 1962, M. Kusuki leg.

The rugosity among strial interstices of elytra suggests relationship with Ectamenogonus rugipennis (Lewis, 1894), however the present new species may be distinguishable from rugipennis as following below.

1. Body elongate, parallel-sided, not fusiform.
2. Colouration black inclining to red.
3. Pronotal median channel distinct, not evanescent at front.
4. Pronotal punctures on disc sparser and finer than those of rugipennis.
5. Scutellum more or less acuminate behind.
6. Prosternal sutures straight, not incurved medially.

New name "Miyako" is an old popular designation of Kyôto city, and is masculine.

## Explanation of Plates

## Plate I

Fig. 1. Hemicrepidius (Pseudathous) okadomei amamicola subsp. nov. (Holotype)
Fig. 2. Ampedus (Ampedus) yaku sp. nov. (Holotype)
Fig. 3. Harminius (Diacanthous) undosus ontakeanus subsp. nov. (Holotype)
Fig. 4. Hemicrepidius (Pseudathous) okadomei yakuensis subsp. nov. (Holotype)
Fig. 5. Ectamenogonus miyako sp. nov. (Holotype)
Fig. 6. Hypolithus (Hypnoidus) motschulskyi kongoensis subsp. nov. (Holotype)

Plate II
Fig. 1. Heteroderes inexpectatus sp. nov.
Fig. 2. Procraerus shibatai sp. nov.

## Plate I



Fig. 1. Hemicrepidius (Pseudathous) okadomei amamicola subsp. nov.
Fig. 2. Ampedus (Ampedus) yaku sp. nov.
Fig. 3. Harminius (Diacanthous) undosus ontakeanus subsp. nov.
Fig. 4. Hemicrepidius (Pseudathous) okadomei yakuensis subsp. nov.
Fig. 5. Ectamenogonus miyako sp. nov.
Fig. 6. Hypolithus (Hypnoidus) motschulskyi kongoensis subsp. nov,

## Plate II



Fig. 1. Heteroderes inexpectatus sp. nov.
Fig. 2. Procraerus shibatai sp, nov,

