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NEW OR LITTLE-KNOWN COLEOPTERA FROM JAPAN AND ITS ADJACENT REGIONS, XXXVII

By
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Abstract

Description of three new species of Coleoptera belonging to Buprestidae are presented. New names proposed here are as follows: *Agrilus takaii*, *A. nagaii* and *A. hattorii*.

Introduction

The buprestid beetles occurring in Japan were fully studied by Dr. Y. Kurosawa in recent years, but the identification of specimens of some groups is still difficult. Quite recently I have tried to identify a series of specimens of such groups in my collection and found some examples apparently belonging to unrecorded species. Three of them are treated in this paper.

Agrilus takaii Nakane sp.nov.

Head, pronotum and antennae aeneous coppery; elytra aeneous, with coppery tinges in outer half on each side; under side and legs aeneous; pubescence short and recumbent, generally dark-coloured but with golden or silvery gloss.

Moderately elongate, widest at posterior third and distinctly attenuate behind.

Head flattened in front, with a feeble longitudinal groove from middle to vertex; clypeus strongly transverse, with front margin arcuately emarginate, upper margin of antennal cavities carinate; frons strongly and sinuously transversely rugose, somewhat transversely depressed behind clypeus; vertex convex, with elongate punctures, which are partly confluent longitudinally. Antennae rather short and slender, very little longer than width of head; 1st joint thickened, 2nd oblong, slightly shorter than 1st, 3rd narrower and a third shorter than 2nd, 4th as long as 2nd, gradually dilated to apex, 4th to 11th serrate, progressively diminishing their length, and apical three transverse.

Pronotum transverse (36 : 25), widest behind middle, very slightly narrowed anteriorly and more distinctly so posteriorly, scarcely sinuate before obtuse hind angles; disk closely

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and strongly transversely rugose, with a shallow oblong impression before middle and a rounded one before scutellum; prehumeral carina very strong, curved in basal half, then sinuate and prolonged forwards and united with lateral margin near front angle; submarginal carina remote from the margin in front and becoming close before hind angle but not jointed; base angularly emarginate on both sides, subtruncate at middle. Scutellum bipartite, microsculptured; anterior part three times as wide as long, with an arched impression at middle; posterior part flattened triangular.

Elytra nearly three times as long as wide (116:39), widest behind shoulders and behind middle; surface rather finely imbricate, somewhat granular at base, weakly transversely rugose except basal and apical portions; suture slightly depressed behind scutellum, then moderately raised; each elytron deeply excavated at middle of base, weakly longitudinally depressed between raised portion of suture and a weak longitudinal carina along middle from behind base to beyond middle; apex of elytra narrowly rounded and denticulate.

Body beneath closely punctured, the punctures fine on abdomen; gular plate bilobed in front; prosternal process relatively short, parallel-sided between coxae, broadly rounded at apex; metasternum and base of abdomen transversely strigose; apical margin of pygidium and of anal sternite rounded; lateral sides of abdomen densely covered with short whitish pubescence, and those of first three segments exposed from above; sides of pectoral areas and an ill-defined area on both sides of each sternite also bearing dense pubescence.

Length: 9.3-10.3 mm; width: 2.6-3.0 mm.

Holotype: ♀, Shinjo-Koshiyama, Is. Okinoerabu, Amami Is., Japan, 17. vii. 1981, Y. Takai leg. Paratype: 1 ♀, Shinjo, Is. Okinoerabu, 13. vii. 1981, Y. Takai leg.

This species is very closely allied to *A. orestes* Kerremans from Formosa, but the body is a little broader, the frons bears strong wavy rugosity, and each elytron is finely granulate at the base and has a fine longitudinal carina along middle.

Agrius nagaoui Nakane sp. nov.

Head, pronotum, antennae and apex of elytra purplish coppery; elytra dark coppery or black with coppery lustre; legs with coppery tinges; body beneath aeneous; pubescence on head and pronotum mostly brownish with golden gloss but inconspicuous.

Rather short and stout, subparallel, widest at posterior third, and acuminate behind.

Head moderately flattened in front, with a slight longitudinal depression from middle to vertex, where it becomes stronger; clypeus strongly transverse, with front margin broadly arched-emarginate; upper margin of antennal cavities carinate, the carinae extending inwards along frontal suture; frons punctured and transversely rugose; vertex gently convex, punctured and longitudinally rugose. Antennae short, a little shorter than width of head, rather stout; 1st joint moderately thickened, 2nd as long as 1st but narrower, 3rd obconical, somewhat narrower and shorter than 2nd, 4th subequal in length to 3rd, but triangularly dilated to apex, 4th to 11th serrate, progressively decreasing their length, becoming transverse from 6th.

Pronotum transverse (29 : 20), widest at about middle, a little narrowed in front and behind, with side margins weakly and evenly arched ; disk longitudinally flattened along middle on front half, with a small impression on both sides at anterior third, surface densely punctured and transversely rugose ; prehumeral carina long, gently curved basally, then sinuate and prolonged forwards, and nearly reaching front angle ; submarginal carina united with lateral margin at basal third ; base angularly emarginate on both sides and broadly but weakly emarginate at middle. Scutellum bipartite, transversely strigulose ; front part four times as wide as long ; hind half very short and triangularly produced backwards at middle.

Elytra more than twice as long as wide (80 : 34), thickly punctured and imbricate ; suture somewhat raised on posterior half ; each elytron relatively weakly but broadly impressed at base, with apex separately rounded and denticulate : pubescence of elytra mostly whitish with silvery gloss and partly brown with golden gloss, but blackish on a large postmedian transverse patch and on preapical band.

Body beneath closely punctured in general and the pubescence usually whitish and very sparsely intermixed with brown ; gular plate broadly subtruncate in front ; prosternum roughly sculptured, with transversely arranged granules ; prosternal process slightly narrowed posteriorly between coxae, then markedly tapered to angulate apex ; hind margin of pygidium and of anal sternite simply rounded ; punctures on abdomen finer on apical sternites and shallower than in metasternum ; metasternum punctured and transversely strigose, but abdomen only strigose on extreme base of 1st sternite.

Length : 6.2 mm ; width : 2.0 mm.

Holotype : ♀, Hatsuno, Amami-Oshima Is., Japan, 16. vi. 1962, J. Nagao leg.

Present species is very nearly related to *A. radiolus* Kerremans from Formosa, and may possibly be conspecific with the latter, but the anterior half of elytra is only obscurely variegated and the dark transverse patch is situated more anteriorly, and the pronotum is lacking in two superposed large grooves at middle of disk.

Agrilus hattorii Nakane sp. nov.

Head, deplanate sides of pronotum, sides of propleura, antennae and legs aeneous with coppery tinges, often sides of pronotum greenish aeneous ; disk of pronotum and scutellum metallic black ; elytra metallic blue ; under side black, with very faint aeneous lustre.

Elongate, subparallel-sided, slightly narrowed behind.

Head about as wide as base of pronotum, rather convex in front, with a vague longitudinal depression along middle, densely punctured and somewhat rugose, clothed with whitish pubescence, but upper area adjoining vertex longitudinally rugose and bearing brownish pubescence ; clypeus flat, very strongly dilated in front of antennal socket, with front margin arched-emarginate at middle ; frontal suture depressed and upper margin of antennal socket not carinate inwardly. Antennae rather short and stout ; 1st joint slightly thickened, 2nd oval or oblong oval, a little shorter than 1st, 3rd obconical, somewhat shorter and narrower than 2nd, 4th triangularly dilated but longer than wide, 4th to 11th

strongly but obtusely serrate, becoming transverse from 6th or 7th.

Pronotum slightly transverse, gradually narrowed posteriorly, often almost parallel-sided in front half; side margins sublinear or very slightly arched, not sinuate before hind angles, and rounded near obtuse front angles; disk strongly transversely rugose, with sides rather narrowly deplanate in front and broadly so behind; without prehumeral carina; hind angles more or less obtusely angulate; submarginal carina remote from lateral margin, often obsolete and abbreviated at apex and base; basal margin trisinate. Scutellum bipartite; anterior part convex, transversely microstriate; hind part shortly triangular, uneven, with apex pointed.

Elytra closely imbricate and clothed with short brownish pubescence; posterior portion of suture somewhat raised; each elytron broadly but not very deeply depressed at base; apex rounded-subtruncate with finely denticulate outer margin.

Body beneath variously punctured and clothed with brownish pubescence principally; sides of prothorax beneath, metathorax and basal sternites of abdomen usually more or less roughly punctured and transversely strigose or rugose; prosternum rather finely and somewhat rugosely punctured; prosternal process slightly widened backwards between coxae, then triangularly projected behind to apex, the surface nearly flat in female, slightly concave and densely clothed with whitish hairs in male; mesosternum and median part of metasternum also with whitish hairs in male; median area of first two abdominal sternites of male together forming an elliptic plane and densely clothed with whitish hairs, with hind margin of 2nd sternite rounded-produced at middle; basal abdominal sternites of female unmodified and finely punctured as in others, without strigosity; apical margin of anal sternite rounded in female, bilobed in male. Legs slender.

Length: 3.8-6.0 mm; width: 1.1-1.6 mm.

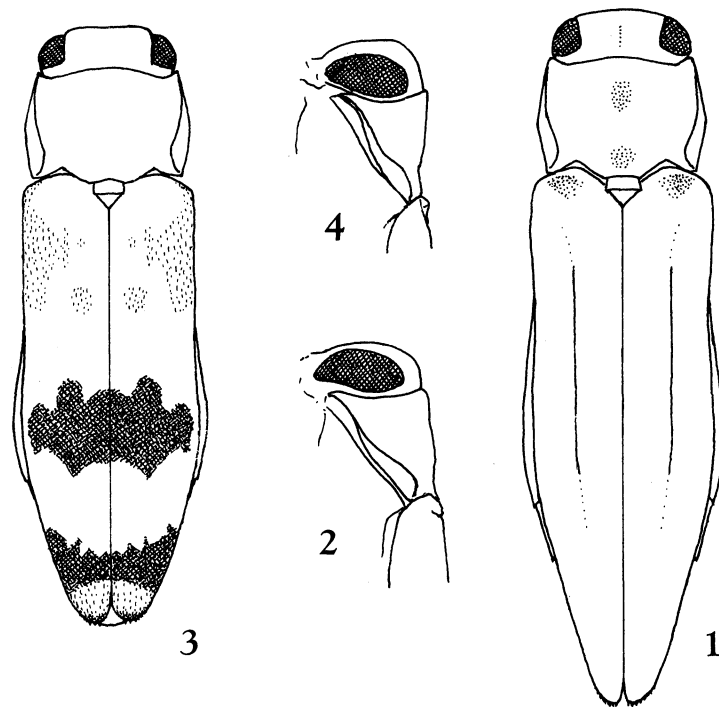
Holotype & 1 paratype: 2 ♂, Shiomi-cho, Nagoya, Honshu, Japan, 12. v. 1938, H. Hattori leg. Paratypes: 1 ♂ 1 ♀, Nagoya, Owari, Honshu, 6. v. 1946, T. Nakane leg.; 1 ♂ 1 ♀, Nagoya, Owari, Honshu, 13. v. 1946, T. Nakane leg.; 2 ♂, Noziri, Nagano Pref., Honshu, 28. v. 1941, T. Nakane leg.; 1 ♀, Kinkazan, Gifu, Mino, Honshu, 19. v. 1946, T. Nakane leg.; 1 ♀, Numata, Gumma Pref., Honshu, 8. v. 1968, T. Takei leg.; 1 ♂, Minoo, Osaka, Honshu, 20. v. 1936, H. Takenaka leg.; 1 ♂, Nose, Osaka, Honshu, 26. v. 1957, T. Shibata leg.; 1 ♀, Nose, Osaka, Honshu, vi. 1935, H. Takenaka leg.; 1 ♀, Mayasan, Kobe, Honshu, 27. vi. 1942; 1 ♀, Kurino, Kagoshima Pref., Kyushu, 7. vi. 1980, T. Nakane leg.

This species somewhat resembles *A. rotundicollis* E. Saunders from Japan, and may be distinguishable from the latter in having less rounded side margins of pronotum, no prehumeral carinae and the different colouration of the body above.

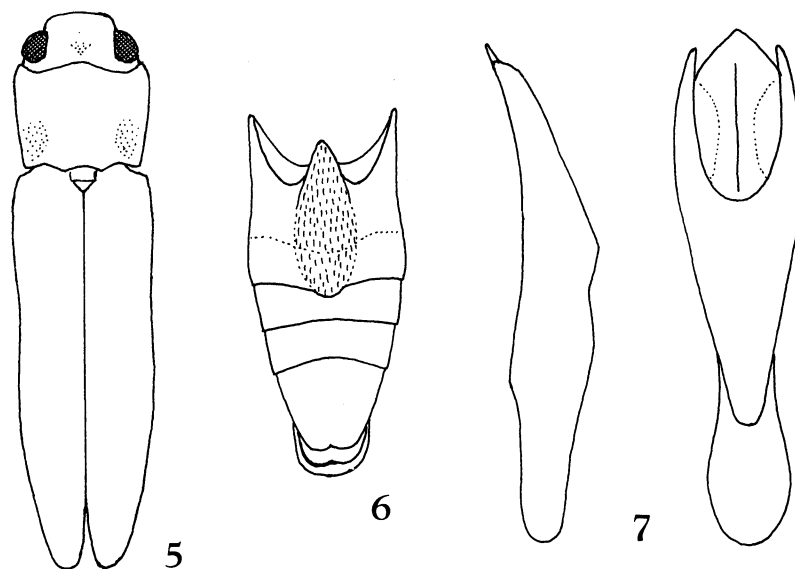
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Figs. 1 & 2. *Agrilus takaii* Nakane sp. nov. Fig. 1. dorsal view ; Fig. 2. head and prothorax in lateral view.
 Figs. 3 & 4. *Agrilus nagaoi* Nakane sp. nov. Fig. 3. dorsal view, Fig. 4. head and prothorax in lateral view.



Figs. 5-7. *Agrilus hattorii* Nakane sp. nov. Fig. 5. dorsal view ; Fig. 6. abdomen of male in ventral view ; Fig. 7. male genitalia.