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ON THE SPECIES OF THE GENUS *AMPHIMENES*
(Coleoptera, Carabidae)

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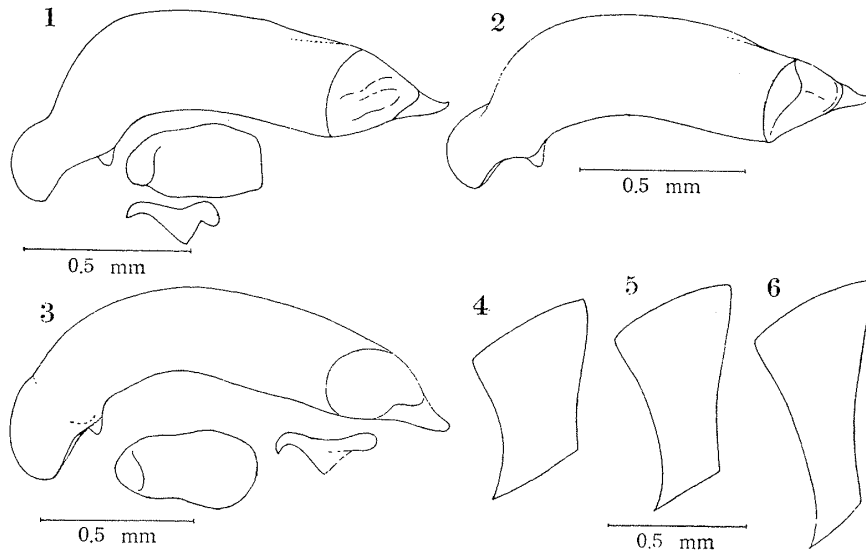
Amphimenes is a small genus, being represented by two species. In the present paper I describe one new species, together with renewed descriptions to the other two species. Before going further I wish to express my deep thanks to Messrs. T. Shibata and A. Ogura for their courtesies giving or lending me the valuable specimens.

Genus *Amphimenes* Bates

Type-species: *A. piceolus* Bates from Japan (monobasic).

Amphimenes Bates, 1873, Trans. Ent. Soc. Lond.: 322.

Description. Body glabrous. Head with neck gently constricted at lateral sides, not on dorsal side; temporae relatively long; hind supraorbital setae a little behind level of posterior margin of eyes, fairly remote from eyes; eyes small and less convex than in allied genera; labrum slightly contracted towards apex, somewhat rounded



Figs. 1-6. *Amphimenes* spp.
1-3. Male genitalia. 4-6. Left metaepisterna, ♂. 1, 6. *A. ryukyuensis* sp. nov. 2, 5. *A. piceolus* Bates. 3, 4. *A. asahinai* Nakane.

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near apical angles, faintly sinuate at middle, with six setae; antennae rather long, glabrous on segments 1 to 3 except ordinary apical setae, densely pubescent from segment 4; palpi slender, apical segment subcylindrical, shortly truncate at apex; mentum rather long, with a pair of setae, lateral lobes triangular, pointed, median tooth distinct, simple; epilobes distinct, a little projecting beyond lateral lobes; ligula narrow, slightly rounded at apex, with two rather long and two rather short setae; paraglossae adnate, extending beyond apex of ligula, with a few fine short hairs at anterolateral margin. Pronotum not well transverse, base not or faintly lobed; lateral margins explanate-reflexed, bisetose; basal foveae faintly extending forwards up to middle parallel to lateral margins. Elytra rather ovate; basal border complete, almost level though sinuate; shoulders not protrudent; apical truncation not distinct, fairly oblique, somewhat sinuate; outer apical angle indistinct, widely rounded, inner apical angle not dentate; intervals transversely striate, interval 3 with three pores. Mid tibiae of ♂ without notch near apex on inner side; tarsi slender, basal three segments of fore tarsi of ♂ dilated, with adhesive hairs on ventral side; all tarsi almost glabrous on dorsal side; claws slender, with three or four fine short teeth. Sternite 6 with one seta on either side and faintly sinuate at apex in ♂, with two setae on either side in ♀. Aedeagus rather cylindrical, moderately bending, twisted to left lateral side, apical orifice opening at left lateral side; parameres moderate in size.

Range. *A. piceolus* Bates is found under bark of trees in rather mountainous

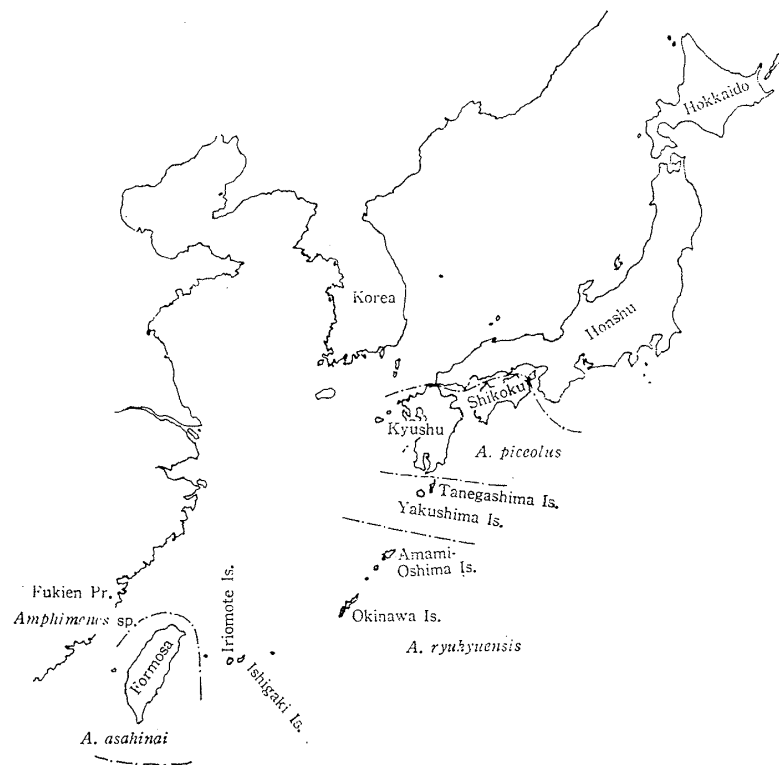


Fig. 7. Distribution map of *Amphimenes* spp.

regions of Shikoku and Kyushu, Japan. *A. asahinai* has been described from Formosa. Between the two areas, another species, *A. ryukyuensis* sp. nov., has been known to occur. The distribution of the three species is indicated in Fig. 7. It still remains quite unknown which species, *A. piceolus* or *ryukyuensis*, inhabits in Tanegashima Is. and Yakushima Is. In 1962 Shibata recorded *A. asahinai* from Amamiôshima Is., however, upon my examination of one specimen from this island which Mr. T. Shibata has kindly offered me, it revealed that his species is not *A. asahinai* but *A. ryukyuensis*. Jedlička recorded *A. piceolus* from Formosa in 1940, and from Fukien Province of South China in 1953, but his specimens need further examination.

Key to the species

1. Metaepisterna long, more than one and two-fifths times as long (at outer margin) as wide (at front margin); wings normal; elytra less wide, one and two-fifths to one and one-half times as long as wide 2
- Metaepisterna short, a little longer than wide, less contracted posteriorly (Fig. 4); wings very small; elytra wider, one and one-third times as long as wide *A. asahinai* Nakane
2. Elytral microsculpture somewhat coarse, forming fully transverse meshes; metaepisterna moderately long, at most one and one-half times as long as wide (Fig. 5) *A. piceolus* Bates
- Elytral microsculpture consisting of fine, close, transverse lines which are not forming distinct meshes; metaepisterna longer and more contracted posteriorly, at least one and three-fifths times as long as wide (Fig. 6) *A. ryukyuensis* sp. nov.

Amphimenes piceolus Bates

Amphimenes piceolus Bates, 1873, Trans. Ent. Soc. Lond.: 322 (Japan: Nagasaki);
Bates, 1876, Trans. Ent. Soc. Lond.: 5, pl. 1, fig. 8; Nakane, 1963, Icon. Ins.
Jap., Colore natur. edit., 2: 53, pl. 27, fig. 1.

Description. Length 5.5–6.8 mm (from apex of mandible to apex of elytron) or 5.8–7.0 mm (from apex of mandible to apex of abdomen). Width 2.3–2.8 mm.

Black, often faintly reddish or brownish, head and pronotum mat, elytra rather shiny; clypeus, labrum, and mandibles reddish brown, sometimes faintly dark, antennae, palpi, lateral explanate parts of pronotum and of elytra, and legs brown; ventral side reddish brown.

Head rather convex; dorsal side not punctate, not or hardly rugose; microsculpture evident, isodiametric; frontal impressions faint; antennae slightly extending beyond shoulders.

Pronotum rather convex, widest a little behind one-third; one and two-fifths times as wide as head, one and two-fifths times as wide as long, one and one-fourth times as wide as base, base one and one-third times as wide as apex; surface impunctate, faintly transversely rugose, very rough owing to strongly sculptured isodiametric microsculpture; apical margin fully emarginate, finely completely bordered; apical angles well prominent, narrowly rounded; basal margin somewhat arcuate or somewhat lobed at middle, rounded near basal angles, unbordered; basal angles indistinct;

lateral margins unborded, rather rounded, not or weakly sinuate before basal angles, hardly angulate at anterior seta; median line distinct, reaching apical border, obliterated at basal area; anterior transverse impression faint or almost absent, posterior impression rather distinct; basal foveae somewhat deep, or rather shallow.

Wings normal. Elytra rather convex, elliptic to oval, widest near middle; a little more than one and one-half to one and two-thirds times as wide as pronotum, one and two-fifths to a little less than one and one-half times as long as wide; microsculpture rather distinct, forming transverse meshes; inner apical angle usually narrowly rounded; striae deep, faintly crenulate; scutellary striole well impressed, moderately long; intervals convex, interval 3 with anterior pore at or a little behind one-fifth adjoining to stria 3, median pore at or behind three-fifths, posterior pore before apex, both pores adjoining to stria 2; marginal series of pores somewhat spaced at middle, nine at humeral area, six at subapical area.

Sternite 6 sparsely ciliate; metaepisterna (Fig. 5) one and two-fifths to one and one-half times as long as wide.*

Aedeagus (Fig. 2) rather stout, convex before middle on dorsal side; apical lamella sharp-triangular, apex acute.

Distribution. Japan: Shikoku, Kyushu (cf. Fig. 7).

Amphimenes ryukyuensis sp. nov.

Amphimenes asahinae [!] Nakane: Shibata, 1962, Ent. Rev., 14: 66.

Description. Length 6.5–7.1 mm (from apex of mandible to apex of elytron) or 6.8–7.5 mm (to apex of abdomen). Width 2.6–2.8 mm.

Black, pronotum obscurely reddish, head half-shiny, pronotum mat, elytra shiny; clypeus, labrum, and mandibles reddish brown, palpi, antennae, and legs light brown, lateral explanate parts of pronotum and of elytra yellowish brown; ventral side dark reddish brown.

Head convex; dorsal side impunctate, hardly rugose; microsculpture distinct, isodiametric; frontal impressions shallow; antennae reaching shoulders.

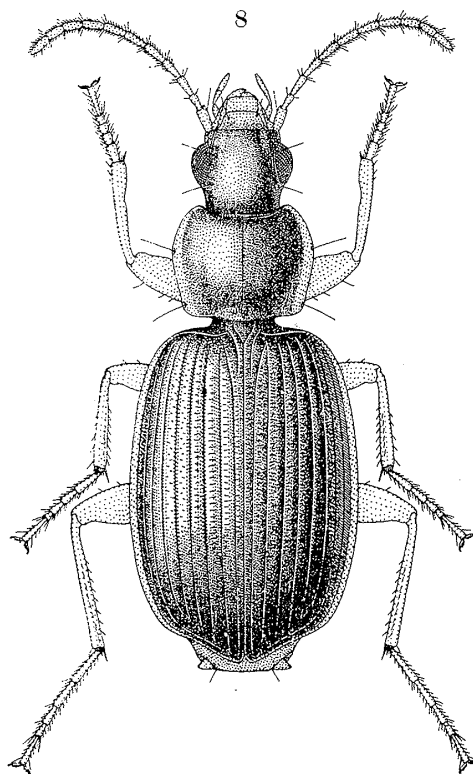


Fig. 8. *Amphimenes piceolus* Bates, ♂.

* I have measured the length and width of the metaepisterna in ten specimens.

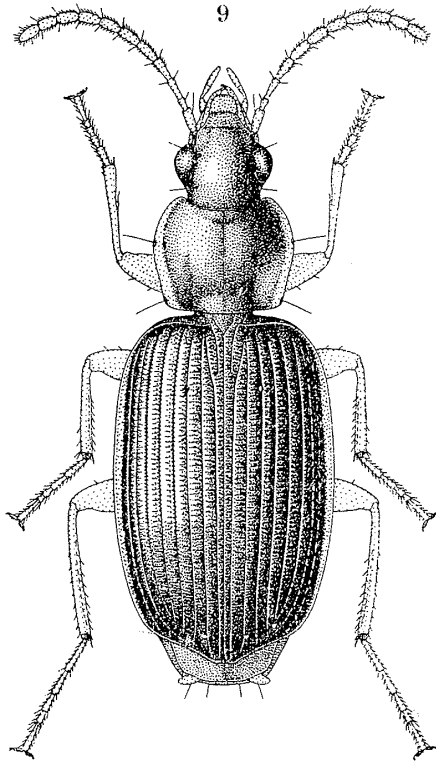


Fig. 9. *Amphimenes ryukyuensis*
sp. nov., ♀ (holotype).

than in preceding species, consisting of fine, close, transverse lines which form no distinct meshes; inner apical angle somewhat pointed, shortly re-entrant; striae deep, faintly crenulate; scutellary striole rather distinct, moderately long; intervals convex, anterior pore on interval 3 at one-fourth to one-fifth adjoining to stria 3, median pore at two-thirds to three-fourths, posterior pore at nine-tenths to ten-elevenths, both adjoining to stria 2; marginal series distinctly interrupted at middle, nine at humeral area, six at subapical area.

Sternites glabrous; metaepisterna (Fig. 6) at least one and three-fifths times as long as wide (in three specimens).

Aedeagus (Fig. 1) similar to that of *A. piceolus*.

Distribution. Japan: Kyushu—Amamiōshima Is., Kagoshima Pref.; Ryukyus—Ishigaki Is., and Iriomote Is. (cf. Fig. 7).

Type-specimens. Holotype: 1 ♀, viii. 2, 1962, Maezatoyama, Ishigaki Is., H. Maruoka leg., deposited in Laboratory of Insect Identification and Taxonomy, National Institute of Agricultural Sciences. Paratypes: 1 ♂, vi. 24, 1961, Hatsuno, Amamiōshima Is., T. Shibata leg.; 1 ♂, vii. 22, 1963, Mt. Tedou, Iriomote Is., Y. Hama leg.

Remarks. This new species is very closely allied to the preceding species, but it is easily distinguishable by the characteristics mentioned in the key.

Pronotum almost flat (slightly convex at central area), widest at apical one-third; more than one and one-third to one and two-fifths times as wide as head, one and one-third times as wide as long, one and one-sixth to one and one-fourth times as wide as base, base a little more than one and one-third times as wide as apex; surface impunctate, shagreened owing to strong microsculpture; apical margin well emarginate, completely bordered; apical angles prominent, narrowly rounded; basal margin unbordered, slightly arcuate at median area, rounded near basal angles; basal angles indistinct; lateral margins unbordered, rather rounded, hardly sinuate before basal angles, very slightly prominent at anterior seta; median line deep, almost reaching apical border, abbreviata at basal area; anterior and posterior transverse impressions shallow; basal foveae rather shallow.

Wings normal. Elytra somewhat convex, elliptic, rather parallel at lateral margin, widest near middle; a little less than one and three-fifths times as wide as pronotum, a little more than one and one-half times as long as wide; microsculpture less distinct

***Amphimenes asahinai* Nakane**

Amphimenes asahinai Nakane, 1957, Sci. Rep. Saikyo Univ., 2: A 237, A 239, fig. 2
(Formosa: "Jûjiro near Mt. Ari, and Keitao, Taichu").

Description: Length 6.0-6.2 mm (from apex of mandible to apex of elytron) or 6.3-6.4 mm (to apex of abdomen). Width 2.6 mm.

Black, somewhat reddish, mat; clypeus, labrum, and mandibles dark reddish brown, antennae, palpi, lateral explanate parts of pronotum and of elytra, and legs light brown; ventral side reddish brown or dark reddish brown.

Head rather convex; dorsal side not punctate, not rugose; microsculpture evident, isodiametric; frontal impressions shallow; antennae slightly extending beyond shoulders.

Pronotum rather convex, widest at apical one-third; one and two-fifths times as wide as head, one and one-third times as wide as long, one and one-sixth to one and one-fifth times as wide as base, base one and one-third times as wide as apex; apical margin well emarginate, completely bordered; apical angles protrudent, narrowly rounded; basal margin almost straight, hardly lobed, unbordered, well rounded at lateral parts towards basal angles; basal angles indistinct; lateral margins unbordered, less arcuate than in *A. piceolus* (almost straightly contracted towards apical and basal angles in one of two specimens examined), not or very slightly angulate at anterior

seta, faintly sinuate before posterior seta; median line, anterior and posterior transverse impressions almost similar to those of *A. piceolus*; basal foveae rather shallow.

Wings very small. Elytra a little less convex than in *A. piceolus*, widest at middle; one and three-fifths to one and two-thirds times as wide as pronotum, one and one-third times as long as wide; microsculpture distinct, forming transverse meshes; inner apical angle rather re-entrant; striae deep, vaguely crenulate; scutellary striole distinct, moderately long; intervals rather convex, first pore of interval 3 at one-fourth adjoining to stria 3, second pore at two-thirds, third pore before apex, both adjoining to stria 2; marginal series of pores practically uninterrupted, eight or nine at humeral area, one at median, six at subapical area.

Sternite 6 very sparsely ciliate; metaepisterna (Fig. 4) a little longer than wide (proportion of length of outer margin to width of front margin 1.07, 1.11 in two

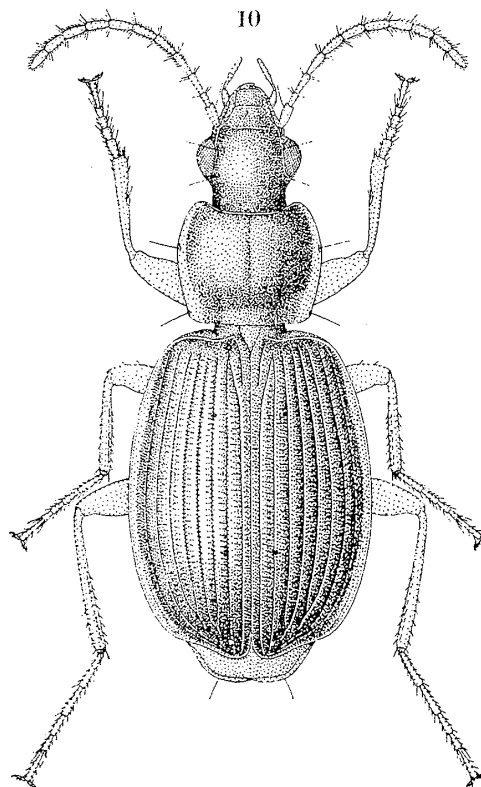


Fig. 10. *Amphimenes asahinai*
Nakane, ♂.

specimens examined).

Aedeagus (Fig. 3) less stout, more bending than in *A. piceolus*; apical lamella pointed but less acute than in *A. piceolus*.

Distribution. Formosa.

Remarks. By the wider elytra, the degenerate wings, and the shorter metaepisterna, this species is easily distinguished from the preceding two species. The small wings seem to be peculiar in the genera allied to *Amphimenes*, such as *Coptodera*, *Dolichoctis*, *Mochtherus*, etc. I have examined the type-specimens through the courtesy of Professor T. Nakane.

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 — (1963): Icon. Ins. Jap., Colore nat. edit., 2: 53.
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隠岐島未記録の天牛 (II)

藤村俊彦

筆者はさきに隠岐島より 80 種の天牛を記録し (本誌 30 巻 3 号), さらに 1 種を追加した (本誌 31 巻 1 号). その後筆者の採集品および岡山市の平田信夫氏の採集品のうち未記録のものデータを門脇久志氏を通じて御教示頂き, 次の 7 未記録種を追加することができ, 隠岐島から確実に 88 種の天牛を記録することとなった. ここに両氏の御好意に対して深く謝意を表す. なお採集地はいずれも島後で, 大満寺山, 横尾山, 布施村, 歌木, 西郷, 都万村などである.

1. *Arhopalus unicolor* Gahan. Fuse, 1♂, July 28, 1951 (N. Hirata leg.); 1♀, May 2, 1963 (T. Fujimura leg.).
2. *Perissus kiusiuensis* Ohbayashi. Mt. Daimanji, 1♂, 1♀, July 28, 1951 (N. Hirata leg.).
3. *Parechthistatus furciferus* Bates. Mt. Yokoo, 1♀, July 9, 1956 (N. Hirata leg.).
4. *Eryssamena saperdina* Bates. Fuse, 1♂, July 29, 1951 (N. Hirata leg.); Tsuma, 1♀, August 12, 1963 (T. Fujimura leg.).
- 4a. *Eryssamena saperdina* Bates f. *acuta* Bates. Mt. Daimanji, 1♂, July 28, 1951 (N. Hirata leg.).
5. *Pterolophia subangusta* Bates. Fuse, 1♂, 1♀, May 2, 1963 (T. Fujimura leg.).
6. *Exocentrus lineatus* Bates. Mt. Daimanji, 1♂, July 28, 1951 (N. Hirata leg.), Saigo, 1♂, May 2, 1963 (T. Fujimura leg.).
7. *Menesia flavotecta* Heyden. Mt. Daimanji, 1♂, July 8, 1956 (N. Hirata leg.); Utagi, 1♀, July 9, 1956 (N. Hirata leg.).