

**The Japanese Subspecies of *Crossocerus heydenii* Kohl and  
a description of a new species of *Crossocerus*  
(Hym., Sphecidae, Crabroninae)**

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**The Japanese Subspecies of *Crossocerus heydenii* Kohl and  
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日本のガロアギングチは欧州の原種と頭楯の形, 心形域凹溝の状態, 触覚節の比長, 雄の脚の色等において, 多少の差違を示し, 亜種として扱うのが適當と考え, 亜種名に *nipponis* を与えた。またヒラアシギングチの雌によく似たミナミカワギングチ (♀) を新種として記載した。この種は頭頂に点刻少なく光沢に富むこと, 額印がやや不明瞭なこと, 中節後面両側の稜線が先端部のみ認められること等の点において比較種と区別できる。

**1. *Crossocerus (Coelocrabro) heydenii nipponis* subsp. nov.**

The new subspecies differs from the typical form in the following points:

♀. (1) The form of clypeus, though considerably varied, generally much more strongly roundly produced anteriorly (Figs. 1-5) (median lobe with a line of gross punctures along anterior margin, on its disc only a few medium- to small-sized punctures very sparsely scattered and the surface nearly bare, lateral lobes normally covered with silvery pubescence, but the hairs comparatively less abundant than in other species).

(2) The furrow enclosing area cordata on propodeum usually defined only within a very narrow range at the extreme apex in a crenate state, it soon turns into a weak line consisted of fine punctures on both sides and completely disappears toward middle of the lateral margin. Sometimes the furrow completely disappears even at the apex. The surface with aeneous shine in oblique light, at base coarsely crenate, of the carinae of crenation outermost ones longer, forming the basal lateral borders of the area, and medianly provided with a well outlined furrow, in part feebly crenate.

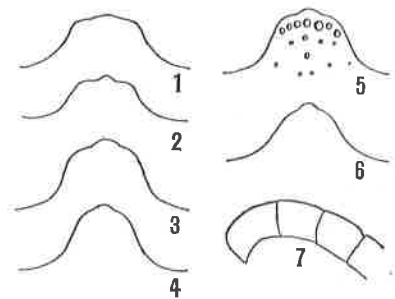
(3) Lateral carinae on posterior aspect of propodeum with varied extension up (forward), but at most reaching up to 2/3, usually 1/3 of the posterior aspect, that is to say, much shorter than in typical species.

(4) Antennal joint 3 relatively slightly shorter, 1.7 ( $\pm 0.1$ ) times as long as broad at apex.

(5) Coloration of legs generally as described by Kohl (1915), but fairly varied, sometimes much darker in general, sometimes with a part of tarsi pale yellow.

♂. Differs chiefly in the colour of legs: Front tibiae on anterior face, front and mid tarsi 1-4 and hind tarsi on basal third of each joint yellow; hind tibiae at base and apical joints of all tarsi brown.

Antennal flagella beneath with a fringe of sparse long pubescence, its ultimate joint curved and truncate at apex (Fig. 7), joint 3 amply twice as long as broad at apex. Clypeus narrower than in the female



Figs. 1-7. *Crossocerus heydenii nipponis* ssp. nov. 1-5: Variation in the form of clypeus (♀). 6: Clypeus (♂). 7: Apical portion of antenna (♂).

(Fig. 6).

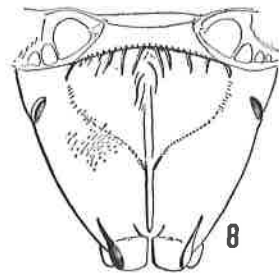
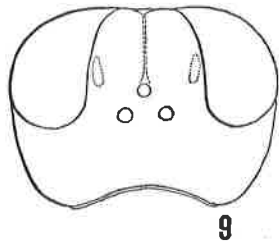
Holotype: ♀, Mt. Haku, 2. VIII. 1953, K. Tsuneki leg. (Coll. Tsuneki).

Paratypes: 2 ♀♀, Mt. Haku, 10. VII. 1948, 31. VIII. 1962, I. Togashi leg., 7 ♀♀, Nikko (9. VII. 1952; 12, 20, 20, IX. 1953, E. Tanaka leg., 11. VIII. 1954, 9. VIII. 1955, K. Tsuneki leg.); 1 ♂, Kyoto Pref. (Seryo pass), 13. VI. 1937. T. Kimura leg., 1 ♂, Niigata Pref. (Renge spa), 24. VII. 1961, K. Baba leg.

Remarks. I examined previously two further female specimens, one from Nikko (E. Gallois leg.) and one from Saghalien, preserved in the collection of the Entomological Institute, Hokkaido University, Sapporo.

## 2. *Crossocerus (Coelocrabro) minamikawai* sp. nov.

This species (♀) is apparently very close to *Crossocerus cetratus* (♀), but can be separated therefrom by the following characters:



Figs. 8-9. *Crossocerus (Coelocrabro) minamikawai* sp. nov. (♀). 9: Head seen from above. 8: Propodeum.

(1) Area cordata on propodeum weakly enclosed (except anterior portion) by fine feeble impressed lines, the form characteristic (Fig. 8) (the surface smooth and highly polished, medianly with crenulate furrow, at base coarsely crenate).

(2) Lateral carinae on posterior aspect of propodeum defined only on apical portion.

(3) Vertex and upper front smooth and highly polished, with very minute (very much finer than in *cetratus*) and very sparse punctures scattered.

(4) Frontal impressions not distinctly outlined, very shallow, defined only in oblique light (Fig. 9).

(5) Minimum interocular distance at base of clypeus slightly more than half as long as the length of antennal joint 1.

(6) Collar of pronotum more deeply excavated in middle.

(7) Hind tibia more strongly clavate, relatively shorter and thicker toward apex, subsequent metatarsus also shorter and relatively thicker than in *cetratus*.

(8) Sculpture on dorsal and posterior aspects of propodeum slightly different as described below.

♀. Length 7.5 mm (paratype 6.0 mm). Black. Mandibles at apex and end segment of abdomen on apical half reddish brown; basal tubercles of antennae and tibial spurs ferruginous; palpi, tegulae and veins of wings and tarsi of legs dark brown, Frontal median furrnw distinct (somewhat weaker than in *cetratus*). clypeus similar to that of *cetratus*, antennal joint 1 carinate as in this species, scuto-scutellar furrow crenate, mespleural precoxal tooth present, dorsal aspect of propodeum outside area cordata weakly transversly (somewhat obliquely), fairly closely striate, mixed with sparse fine punctuals, the striae

rather obsolete near area cordata and somewhat stronger on the areas bordering to the sides of the segment, posterior aspect medianly with broad and deep furrow, surface sparsely weakly punctured with very minute points, apical portion strongly coarsely striate; the sides upwards and posteriorly longitudinally finely closely striate, mixing sparse fine punctuals, rest of the area smooth and polished. Structure of pygidial area and other characters as in *cetratus*.

♂. Unknown.

Holotype: ♀, Shizuoka Pref. (Kanayama-machi), 3. V. 1952, J. Minamikawa leg. (coll. Tsuneki).

Paratype: 1 ♀, Aomori Pref. (Towada), 17. VIII. 1957, K. Shimoyama leg. (do.)