HOKKAIDO UNIVERSITY

| | |
|---|---|
| Title | On two species of Carabidae from Mt. Hiko (Coleoptera) (The Carabidae-fauna of Mt. Hiko, 4) |
| Author(s) | Habu, Akinobu |
| Citation | Insecta matsumurana, 19(1-2), 35-39 |
| Issue Date | 1955-06 |
| Doc URL | https://hdl.handle.net/2115/9557 |
| Type | departmental bulletin paper |
| File Information | 19(1-2)_p35-39.pdf |

Hokkaido University Collection of Scholarly and Academic Papers : HUSCAP

# ON TWO SPECIES OF CARABIDAE FROM MT. HIKO

(Coleoptera)

(The Carabidae-fauna of Mt. Hiko, IV)

By AKINOBU HABU

National Institute of Agricultural Sciences,
Nishigahara, Tokyo

***Hayekius*** gen. nov.

Genotype: *Ophonus constrictus* BATES

Head large, with surface and underside glabrous; temporae glabrous; eyes glabrous, very narrowly divided from buccal fissures; a single supraorbital pore on each side; frontal foveae short; clypeus bisetose; labrum transverse, sex-setose; antennae rather slender, basal two segments glabrous; terminal segment of palpi acuminate, penultimate segment of labial palpi with about five setae on inner side; mandibles short, rather narrow, slightly hooked at apex; mentum with a moderately deep emargination and a simple stout tooth; ligula narrow, bisetose; paraglossae membranous, glabrous, extending a little beyond ligula and separated from it by a deep incision on each side.

Prothorax subcordate, glabrous, with a single lateral seta near middle on each side.

Elytra glabrous, with scutellar striole between suture and stria 1.

Prosternum finely and rather sparsely pubescent at middle, prosternal process unbordered, with a few setae; metepisterna wide, as long as wide, moderately contracted behind; ventral abdominal segments glabrous save middle of segments 2 and 3, where very fine and short hairs are sparingly present.

Metathoracic femora with three setae near hind margin, the two near base, the one before middle; apical part of pro- and mesothoracic tibiae with some rather short setae; tarsal segments ciliate on upper surface; prothoracic tarsi in ♂ with segment 1 a little dilated, with segments 2, 3 and 4 strongly dilated and subcordate, segment 2 three-tenths wider than long, segment 3 as wide as segment 2, five-eighths wider than long, segment 4 deeply emarginate at apex, a little narrower than the preceding, underside of apical-central part of segment 1, and whole underside of segments 2, 3 and 4 in ♂ with fairly dense, white, barbated or brush-like hairs; mesothoracic tarsi in ♂ with segment 1 slightly dilated, with segments 2 to 4 moderately dilated, segment 2 a little longer than wide, segment 3 as wide as segment 2, nearly as wide as long, segment 4 cordate, a little narrower than the preceding, moderately emarginate at extremity, underside of segments 2 and 3 with barbated hairs just same as segments 2 to 4 in

prothoracic tarsi, dense hairs of underside in segment 1 fainter than the same of segment 1 in prothoracic tarsi, underside of segment 4 without brush-like hairs; segment 4 of metathoracic tarsi moderately emarginate, segment 5 of all tarsi ciliate beneath.

Dense, white, brush-like hairs on the underside of the pro- and mesothoracic tarsi in ♂ indicate the present new genus should be comprised in Subtribe Anisodactyli though general appearance reminds of some *Trichotichnus*-species.

Generic name "Hayekius" is named in honour of Miss C. M. F. VON HAYEK of the British Museum, who was kind enough to compare the specimen from Mt. Hiko with BATES' type-specimen.

***Hayekius constrictus*** BATES

1883: *Ophonus constrictus* BATES, Trans. Ent. Soc. Lond., p. 235.
1887: *Ophonus constrictus* SCHÖNFELDT, Cat. Col. Jap., p. 41.
1916: *Ophonus constrictus* MATSUMURA, Cat. Ins. Jap., II, p. 21.
1932: *Harpalus* (*Ophonus*) *constrictus* CSIKI, Schenkling's Col. Cat., pars 121, p. 1102.

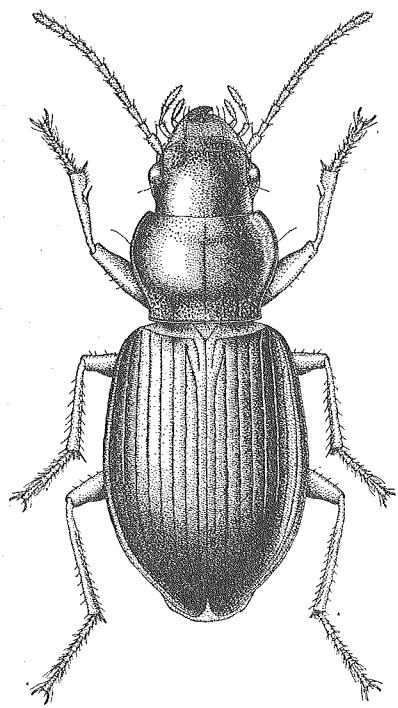

**Fig. 1.** *Hayekius constrictus* BATES (♀)

BATES described this species by only one male specimen from Oyayama near Kumamoto. Though his description is rather precise, I give a more detailed redescription on the basis of the present speciemens at hand.

Length: 9.5 mm. Width: 4.5 mm.

Black, shiny, sometimes faintly rufous; antennae, lateral sides of prothorax, base of elytra, and apical sides of elytra reddish brown (tarsi somewhat pale), palpi brown, underside ferruginous.

Head wide, fairly convex; surface rather strongly rugose-punctate near frontal foveae, sparsely and not strongly punctate on vertex; microsculpture almost invisible, but forming some vague transverse meshes here and there; temporae somewhat tumid, longer than eyes; supraorbital pores situtated slightly behind level of hind margin of eyes, remote from eyes; eyes rather small and weakly prominent; frontal foveae moderately deep, short, diverging backward obliquely and faintly to eyes; clypeal suture fine, somewhat depressed

at median part; antennae reaching base of elytra, basal two segments and basal one-half portion of segment 3 glabrous, segment 3 a little longer than segment 4; apical segment of both palpi, and apical one-half portion of penultimate segment of maxillary palpi finely and sparsely pubescent, apical segment somewhat tumid at middle and acuminate to apex, one-fourth longer than penultimate segment in maxillary palpi; tooth of mentum clearly shorter than lateral lobes, not bifid.

Prothorax convex, widest before middle; surface sparingly punctate, but disk nearly impunctate, basal area rather strongly rugose-punctate; microsculpture forming very vague transverse meshes; one and one-third times as wide as head, one and two-fifths times as wide as long; apex feebly emarginate, finely bordered save middle; front angles somewhat protrudent but rounded; base nearly straight, somewhat oblique at lateral parts, clearly and completely bordered, nearly as wide as apex; hind angles rather rectangular; lateral sides bordered, moderately rounded in front and behind, sinuate before base; one seta situated at one-third distance from apex; median line fine and not deep; frontal transverse impression indistinct, hind one rather obsolete; basal foveae rather shallow, short.

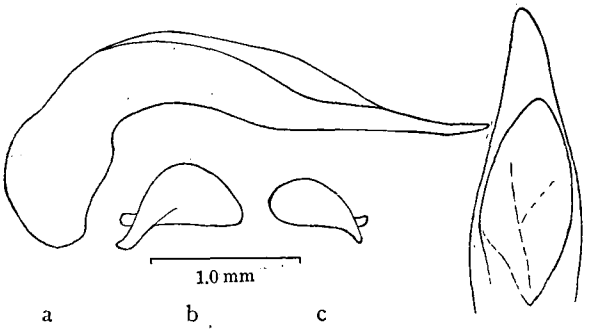


**Fig. 2.** Aedeagus of *Hayekius constrictus* BATES
a. General form viewed from lateral side.
b. Left paramere.
c. Right paramere.
d. Apical part viewed from above.

Apterous. Elytra fairly convex, ovate, widest somewhat before middle; sparingly and faintly punctate; microsculpture consisting of fine transverse lines, which form wide meshes; more than one and one-third times as wide as and two and five-eighths times as long*) as prothorax, one and three-eighths times as long as wide; basal border gently oblique, feebly sinuate at middle; shoulder somewhat distinct but rounded, without tooth; lateral side gently rounded from base to middle, then moderately rounded towards apex, apical sinuation faint;

* Measured from the base of the scutellar striole to the apex of the elytra.

apex rather widely rounded; striae moderately impressed, similar throughout, crenulation very faint, striae 1 and 2 arising from basal umbilicate pore; scutellar striole rather short, intervals slightly convex, interval 3 without dorsal pore; marginal series of large pores on interval 9 widely interrupted at middle, 6-7, + 9-11 in number.

*Prosternum, proepisterna, mesoepisterna, mesothoracic coxae, metasternum,* metepisterna and basal sides of ventral abdominal segments more or less punctate, middle of ventral abdominal segments 2 and 3 minutely sparsely punctate and setulose between metathoracic trochanters; apical ventral abdominal segment with two marginal setae on each side in ♂ and ♀.

Aedeagus nearly straight from middle to apex, very slightly bending above near apex (viewed from lateral side); apical lamella elongate, gently narrowed towards apex; right paramere moderately shorter and narrower than left paramere.

Distribution: Japan (Kyushu).

On Mt. Hiko this species is sometimes found under stones at the places 800-900 m. in altitude, and shows the state of reflex immobilization when touched.

In addition to the specimens from Mt. Hiko in Fukuoka Prefecture I have examined some ones from other localities in Kyushu, viz. Shiiba in Miyazaki Prefecture, Summit of Takachiho, Kirishima Mountains in Kagoshima Prefecture.

Japanese Name: Bêtsu-gomokumushi.

***Lebia hikosana*** sp. nov.

Length: 4.2 mm. Width: 2.2 mm.

Brown, somewhat reddish, shiny; lateral sides of prothorax yellowish brown, legs and lateral sides of elytra yellowish, elytra dark brown or blackish, with pale brown spots, anterior ones elongate-triangular and almost reaching middle of elytra, posterior ones nearly transverse, connecting each other at suture, lying near apex, apex somewhat dark, underside pale brown.

Head rather convex; surface minutely and sparsely punctate; microsculpture distinct and isodiametric; neck-constriction invisible on upper side; eyes large and prominent; frontal foveae short and faint; front margin of labrum weakly rounded; antennae reaching fully beyond base of elytra, pubescent from segment 4, which is slightly longer than segment 3 or 5; mentum with a stout simple tooth.

Prothorax convex, widest somewhat before middle; surface irregularly rugose; microsculpture distinct, forming isodiametric meshes; one and one-third times as wide as head, more than one and one-half times as wide as long; apex nearly straight, finely bordered; front angles rounded; base slightly narrower than widest point, almost straight at lateral parts, gently produced and rounded at middle, finely bordered; hind angles rectangular though somewhat rounded at extreme tip; lateral sides finely and vaguely bordered, widely explanate and reflexed, strongly rounded in front, weakly contracted behind, slightly sinuate before hind angles; bisetose, front lateral seta at about one-fourth point from

apex, remote from lateral margin, hind lateral seta almost on angle; median line fine and shallow; front transverse impression short and faint, hind one moderately deep; basal foveae short, rather deep.

Elytra flat, dilated behind, widest at about two-thirds distance from apex, impunctate; microsculpture distinct and isodiametric; one and three-fourths times as wide as prothorax, three and two-thirds times as long*) as prothorax, more than one and two-sevenths times as long as wide; basal border strongly sinuate; shoulder rounded; lateral side evenly rounded or nearly straight to widest point, then gently rounded behind; apical truncation somewhat oblique, with outer angle rounded; apex or inner angle rounded; striae fine, similar throughout, vaguely crenulate, stria 1 arising from basal umbilicate pore, which is fairly remote from both basal border and scutellar striole; scutellar striole long; intervals moderately convex, interval 3 with two dorsal pores at two-sevenths and four-fifths from base, adjoining stria 3; large pores forming marginal series spaced at middle.

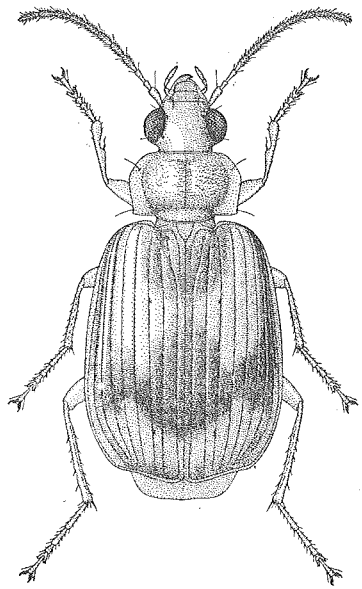

Fig. 3. *Lebia hikosana* sp. nov.

Ventral abdominal segments nearly impunctate.

Segment 4 of all tarsi fully bilobed; claws distinctly pectinate.

Habitat: Kyushu, Japan.

Holotype: 1♀, Mt. Hiko, Fukuoka Prefecture, Kyushu, IV. 18, 1951, A. HABU leg., preserved in the collection of the Entomological Laboratory of the Kyushu University in Fukuoka. Paratype: 1 ex., same locality.

This species was found under moss on beech-trunks at the stations 900-1,000 m. in altitude.

Though allied to *Lebia calycophora* SCHMIDT-GOEBEL var. *comitata* BATES, the present new species differs apparently in the elytral patterns.

J. N.: Hikosan-jûji-gomimushi.

In conclusion, it is a great pleasure to record here a debt of gratitude to Professor T. ESAKI, Professor K. YASUMATSU and Miss C. M. F. VON HAYEK for their kind aid rendered in the present study.

*) Measured from the shoulder to the apex of the elytra parallel to the suture.