

A New Subalpine Species of *Pentanota* BERNHAUER, 1905 from Japan  
(Coleoptera : Staphylinidae)

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亜高山性 *Pentanota* 属の1新種

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**Abstract** *Pentanota alpicola* sp. nov. is described. The genus is new to the fauna of Japan. The present paper is to make trial how it may be classified from the new taxonomic point of views. A given study of the mouth parts may be useful for further works.

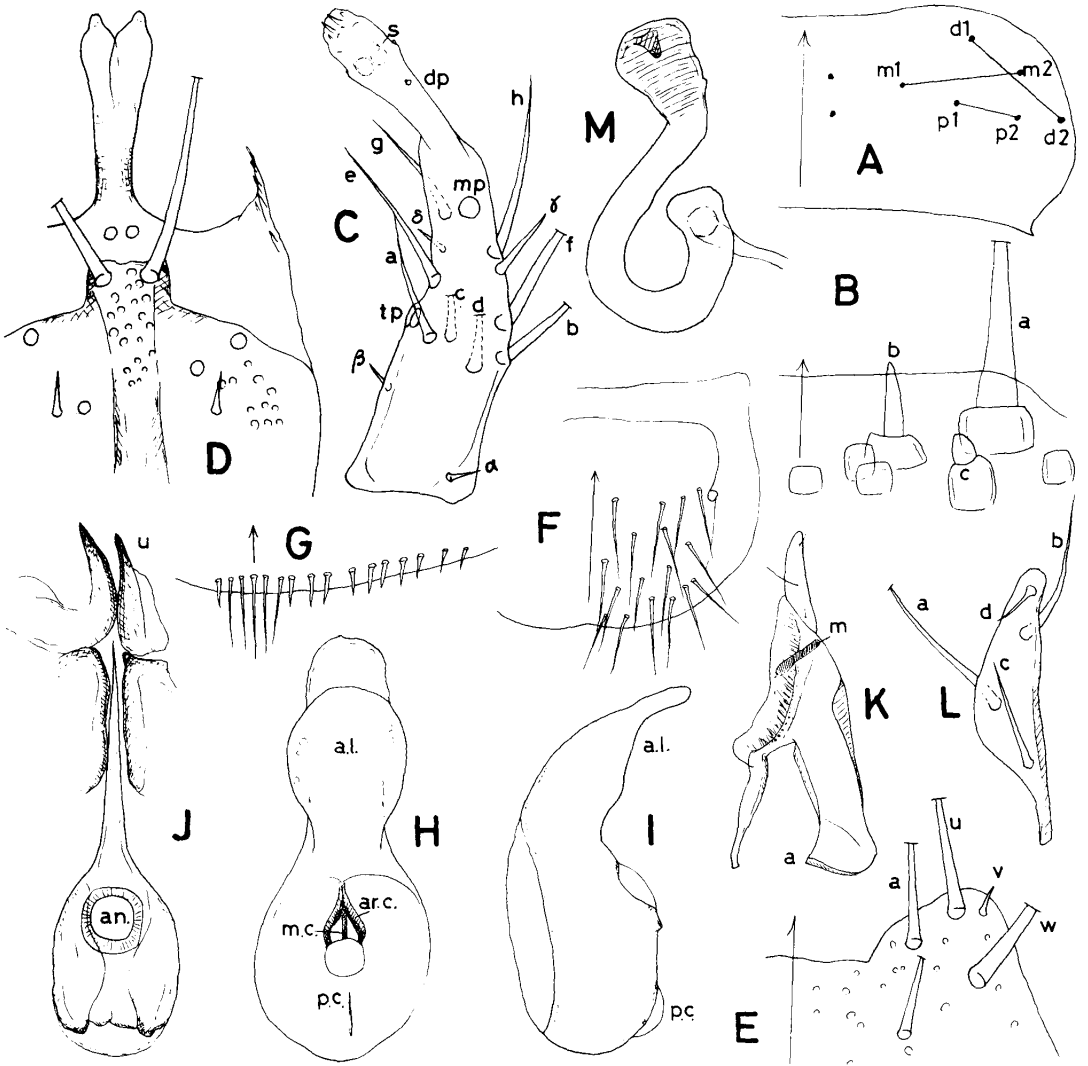
In 1985 a biological survey by travelling through Kasagatake Mountains (2898m. alt.) in the Northern Japanese Alps, central Honshu, Japan was made by the Gifu Prefectural Museum. A good deal of collection of the subfam. Aleocharinae has been brought to me for inspection by Mr. Koh SUZUKI to whom I must express my cordial thanks. Special efforts were made this time to make clear each of the species obtained. Hearty thanks are due to Dr. C. L. MILKINT of the Field Museum of Natural History, Chicago for giving me information about the type, that is missing leaving the label to which the type specimen was adhered.

The species to be described here is one of the most remarkable among them, which may be named as :

*Pentanota alpicola* K. SAWADA, sp. nov.

(Figs. A-M)

♂. Brown in ground colour and subopaque by the presence of dense alutaceous microsculpture ; head and pronotum are intensively pigmented, while elytra are tinged with reddish yellow, the extreme base and the postero-lateral portion more or less infusate ; antenna dark brown except for slightly bright basal segments ; legs similarly pigmented to the elytra. Body is large, robust, rather flat above and with long conspicuous setae. Head is small for the corpus, apparently flat above and without depression in the middle ; the surface is completely alutaceous and with setigerous, very fine granules scattered all over. Eyes are small and as much convex as the head contour. Post-gena is arcuate and fairly long in relation to the eye. Curvical carina is diverged and strongly costate in its full length. Antenna is long, slender and only slightly dilated towards the extremity ; segments I-IV thickly pilous ; III longer than II ; IV to IX gradually decrease in length ; X a little longer than wide ; XI short. Labrum (Fig. A) is gently emarginate in front ; among 6+6 major setae medial row of setae is fairly long when compared to short proximal row and is extending beyond distal row ; there are 2+2 secondary setae in the middle. Sensilla *a* of labral margin (Fig. B) is conspicuously long ; *b* is spiniform ; *c* is inconspicuous. Mandibles are short, abruptly pointed to hooked apices ; the right one has



*Pentanota alpicola* K. SAWADA, sp. nov., A. Labral chaetotaxy ; B. Labral margin ; C. Labial palpus ; D. Glossa & prementum ; E. Mentum ; F. Tergite VIII ; G. Sternite VIII (♀) ; H. I. Median lobe ; J. Copulatory piece ; K, L. Lateral lobe & its distal segment ; M. Spermatheca.

a very fine molar. Maxillary palpus is 4 segmented and very long ; segment II narrowly elongate ; III a little longer than II and rather gradually dilated distally ; IV is subulate, long in relation to III and with some placoid sensillae near apex, which give it a subsegmented appearance ; the regular large sensilla on III (*b* in Fig. C) is converted to a minute spinulate element. Galea is normally developed with a large, well-ciliated distal lobe. Lacinia is gradually dilated basally and with ca 12 similar dentition in series. Labial palpus (Fig. C) is composed of three subequally elongate segments ; III is much constricted basally, with paired large placoid sensillae (*s*) on the inner surface and with a minute spinulate sensilla (*dp*) on the outer surface ;  $\beta$  is remote from *tp*, while  $\gamma$  is close to *h* ;  $\delta$  is clearly posterior to the level of

*mp* ; *f* is on the same level with *tp*, whereas *e* is near the level of  $\gamma$ . Glossa (Fig. D) is narrowly elongate, gently spatulate distally and ending in a papillate process ; basal paired pores contiguous. In lateral area of prementum (Fig. D) setal pore is near real pore and accompanied with ca 11 small pseudopores ; median area is moderate in width, not constricted behind and with about 20 subequally small pseudopores. The anterior margin of mentum (Fig. E) is nearly straight, and with projecting lateral corner on each side, where *v* is very small, close to *u* ; *w* is remote from them ; there is an additional long seta (*a*) lateral to *u*. Pronotum is broader than long, more or less flat above and with an obsolete median sulcus which is gradually becoming wide posteriorly to form a fovea before the base ; the lateral margins are broadly rounded anteriorly and sinuately constricted basally, thus the posterior corner is well-marked. Characteristically all the margin is finely marginated ; lateral erect setae are long and conspicuous ; the surface is more densely granulated than in the head. Prosternum is convex above forming a median ridge. Mesosternum with a median carina which is becoming effaced just before the apex of mesosternal process. Elytra are dilated behind, much rougher than the pronotum and distinctly emarginate postero-externally. Flabellum with some 8 long setae. Macrochaetotaxy may be composed of three rows of major setae, they are 03-314-324-334-444-4344. Abdomen is broad, feebly dilated behind and then gradually retracted towards the apex ; tergites III-VI deeply depressed basally. Tergite VIII (Fig. F) is rounded behind and indistinctly emarginate in the middle, where a row of fine marginal setae is present. Legs are characteristically long and slender ; each tibia bears several long macrosetae, in contrast with 3 macrosetae in usual cases. Tarsal formula as 5, 5, 5, in which metatarsus with segment I longer than II and densely fringed ventrally ; II-IV subequal in length ; V very long, fully as long as 3 preceding together. Median lobe of aedeagus (Fig. 5. H,I) is ca 0.70mm long ; ventrally it is panduriformis with a deep constriction near the middle ; in lateral view apical lobe is elongate and curved, the margin is not straight, but dilated before the base. Costae *ar. c.* is abruptly approximate and completely confused to each other ; *m. c.* is present ; *p. c.* is short and costate to form a low projection. From the inner armature (Fig. J) copulatory piece is oblong at base and distally projecting to form a long acicular lobe ; annellus (*an.*) is normal in size and location. Distal apophyses are composed of narrowly elongate plates standing close together and with paired long uncinatodentes (*u*), through which the copulatory piece is launched. Lateral lobe (Fig. K) is narrowly elongate ; the basal corner (*a*) is subrectangular and angulate at apex ; middle apodeme (*m*) is narrow ; distal segment is elongate, more or less dilated towards the base, where there are long *a* and short *c*, the latter of which is far remote from *d* ; *b* is close to *d* in location ; vellum may be not well-developed.

Length. ca 4.50mm (Head 0.56mm long  $\times$  0.70mm wide ; pronotum 0.70mm  $\times$  0.90mm ; elytra 6.84mm  $\times$  1.66mm).

♀. Sternite VIII (Fig. G) is broadly rounded behind and with a row of long and fairly short marginal setae. Spermatheca (Fig. M) is elongate, deeply curved and not narrowed distally ; bursa bears a short umbilicus within.

Holo-(♂), allo- and 12 paratypes : GIFU Pref. : Wasabidaira (ca. 1400m. alt.), Mt. Kasagatake in N. Alps, (28 IX, 1985, Koh SUZUKI leg.) The holo-, allo- and 10 paratypes are preserved in the collection of the Gifu Prefectural Museum, Gifu, and 2 paratypes are in the

author's collection.

*Pentanota* BERNHAUER, 1905 is monobasic, and its type species is *P. meuseli* BERNHAUER, 1905 from Siberia and Alaska. The specimen of the type species has been lost. Under the circumstances, to revise the genus is to be retained until new material is available for the study.

In the present species the median area of prementum (Fig. D) is moderately broad and with pseudopores. Glossa (Fig. D) is fairly elongate and ending in the papillate lobes. In labial palpus (Fig. C)  $\beta$  is far remote from  $tp$ ,  $\gamma$  is close to  $h$  in position, and segment III possesses the placoid sensillae ( $a$  in Fig. C). Besides, the macrosetae are represented in the multiplicities as 03-314-324-334. . .

In the slender antennae and roughly sculptured elytra the present species may be close to *P. meuseli* BERNHAUER 1905, but differs in the smaller eyes, longer segment III of antenna and the smooth tergite VII in the male sex.

### 摘 要

岐阜県博物館による「笠ヶ岳連峰学術調査」が1985年に実施され、多大の成果が得られたが、その折、ワサビ平(海拔1,400m)において当館の鈴木功氏により、多数のハネカクシ科甲虫が採集された。筆者は、これら貴重な標本を検討する機会を得たが、その結果 *Pentanota* 属に特徴が合致すると考えられる複数の個体を得たので新種と認め *P. alpicola* と命名した。本種は極東地方に分布する *P. meuseli* BERNHAUER に共通する外部形態を持つと考えられるが、複眼が明に少く、触角第3節が第2節より著しく長く、更に♂の第8腹節背板は平滑である点で差異が認められる。

なお *P. meuseli* は本属の模式種でもあるが、その模式標本が、Field Museum において紛失している現在、今後の追加資料をまわって、属の再検討を行いたい。今回は、新しく判明した口器等の剛毛配列など若干の属の特徴と考える形質を示すに止めた。

### References

- BERNHAEUER, M., 1905. 13. Folge neuer Staphyliniden der paläarktischen Fauna nebst Bemerkungen, Verh. zool.-bot. Ges. Wien, 55 : 591-593.
- BERNHAEUER, M., & K. SCHUBERT, 1926. Staphylinidae V. In Junk. W., & S. Schenkling (eds.) Coleopterorum Catalogus, pars 82 : 745.
- BLACKWELDER, R. E., 1952. The generic names of the beetle family Staphylinidae with an essay on genotypy, U. S. Nat. Mus. Bull. 200 : 298.
- FENYES, A., 1918-1921. Subfam. Aleocharinae, (in) Gen. Ins., 173B : 356.
- SAWADA, K., 1972. Methodological Research in the Taxonomy of Aleocharinae, Contr. Biol. Lab. Kyoto Univ., 24 (1) : 56-58, Table.
- SCHEERPELTZ, O., 1940. XVII. Fam. Staphylinidae, (in) Bestim. europ. Käfer, 2. Heft, Kol. Rundch., 20 : 85-93.
- SEEVERS, C. H., 1978. A generic and tribal revision of the North American Aleocharinae (Coleoptera : Staphylinidae), Fieldiana Zool., 71 : 39-42.