

A Review of *Obrium longicorne* BATES (Coleoptera, Cerambycidae)

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Abstract The type series of *Obrium longicorne* BATES preserved in the Natural History Museum, London, is reexamined, and the lectotype is designated for a female specimen from Nagasaki. The correct name of the other two specimens of the series is determined as *Stenhomalus lighti*. *Obrium longicorne* is transferred to the genus *Stenhomalus* based mainly on the thoracic character. The lectotype is redescribed and illustrated, and some taxonomic comments are also given.

Obrium longicorne BATES is one of the most problematical species among the well clarified fauna of the Japanese cerambycid beetles. Although the name of this obriine has been additionally recorded by several Japanese authors, all those reports were based on misidentification of *Obrium japonicum* PIC. True *O. longicorne* has not yet been rediscovered from Japan and its adjacent areas since BATES' original description was published.

Recently I was able to reexamine the type series of *O. longicorne* preserved in the Natural History Museum, London. In this paper, I am going to deal with some taxonomical problems of the species. The abbreviations used in the redescription are the same as those explained in previous papers of mine.

Before going into further details, I wish to express my heartfelt thanks to Dr. Shun-Ichi UÉNO of the National Science Museum (Nat. Hist.), Tokyo, for his constant guidance and reading through the original manuscript of this paper. Thanks are also due to Mrs. Sharon SHUTE of the Natural History Museum, London, for her kind help for my reexamination of BATES' type specimens.

Lectotype Designation of *Obrium longicorne* and its Systematic Position

The type series of *Obrium longicorne* BATES includes two different species; a female is true *longicorne* agreeing well with BATES' original description, while the other two belong to a rather common obriine species in Japan, *Stenhomalus lighti* GRESSITT. Although the two species are distinct in coloration and structure, they have such common characters as the unicolored and immaculate elytra, and large, strongly approximate eyes. It is most probable that BATES considered the series of the three specimens as representing infraspecific variation of the same species, and the two specimens be-

longing to *S. lighti* as the dark form of *O. longicorne*.

I would like to designate the pale female specimen collected at Nagasaki as the lectotype of *O. longicorne*. The other two specimens should be excluded from the type series of *O. longicorne*, since they were identified with *Stenhomalus lighti*.

Lectotype: ♀, *Obrium longicorne* BATES: "Japan G. Lewis 1910-320" "Nagasaki" "Obrium longicorne Bat" "Nag. 54 346 (underside of mounting card)."

According to the present reexamination, it is obvious that *O. longicorne* should belong to the genus *Stenhomalus*. It is true that the lectotype of this species looks like a member of the *Obrium* due to short, broad, uniformly yellowish body. Apart from such an external appearance, *O. longicorne* not only has posteriorly well extended metepisternum, a weak longitudinal costa between the metepisternum and metepimeron, and dense recumbent pubescence on the pronotum, but lacks deep longitudinal concavity between the metepisternum and metepimeron, all of which are autapomorphies of the genus *Stenhomalus* in the tribe Obriini. Therefore, *O. longicorne* should be transferred from *Obrium* to *Stenhomalus*.

***Stenhomalus longicornis* (BATES, 1873), comb. nov.**

[Japanese name: Higenaga-ameiro-kamikiri]

(Figs. 1–2, 3a)

Obrium longicorne BATES, 1873, Ann. Mag. nat. Hist., (4), **12**, p. 155. — NIISATO, 1992, Illustr. Guide Identif. Longic. Beetles Japan, p. 485.

Relatively small species of uniformly light yellowish brown body, with very large approximate eyes.

Colour light yellowish brown, more reddish on fore body, infusate at genae and along margins of mandibles, ventral surface except for apical three sternites invisible, eyes black, slightly shiny.

Female. Head large and voluminous, wholly distinctly convex, distinctly wider than pronotum, coarsely shagreened, clothed with pale pubescence, densely so on fore body and near antennal cavities, HW/PA 1.29, HW/PW 0.85; frons short, strongly narrowed anteriad, weakly raised though slightly impressed at sides, almost transversely truncate at apex, with a deep median groove extending from apical margin to anterior part of vertex, FL/FB 0.47, FB/FA 1.21; clypeus long, strongly narrowed anteriad, transversely truncate at apex, smooth on surface, CL/CB 0.33, CB/CA 1.30; mandibles rather long and stout, strongly arcuate, with acute extremities; genae very shallow, one-fourteenth of the depth of eye-lobes, obtuse at corners in frontal view; vertex and occiput rather strongly convex, almost parallel at neck; eyes very large, strongly prominent laterad, coarsely faceted, remarkably emarginate at inner margins, separated from each other by a little less than 2/11 on dorsum and 3/11 on venter of the width of occiput. Antennae moderately long and slender, reaching elytral apices at basal third of segment 7, densely clothed with pale minute pubescence and sparsely with pale medium-sized hairs on segments 1–4; scape moderately clavate, widest at apical 5/12,

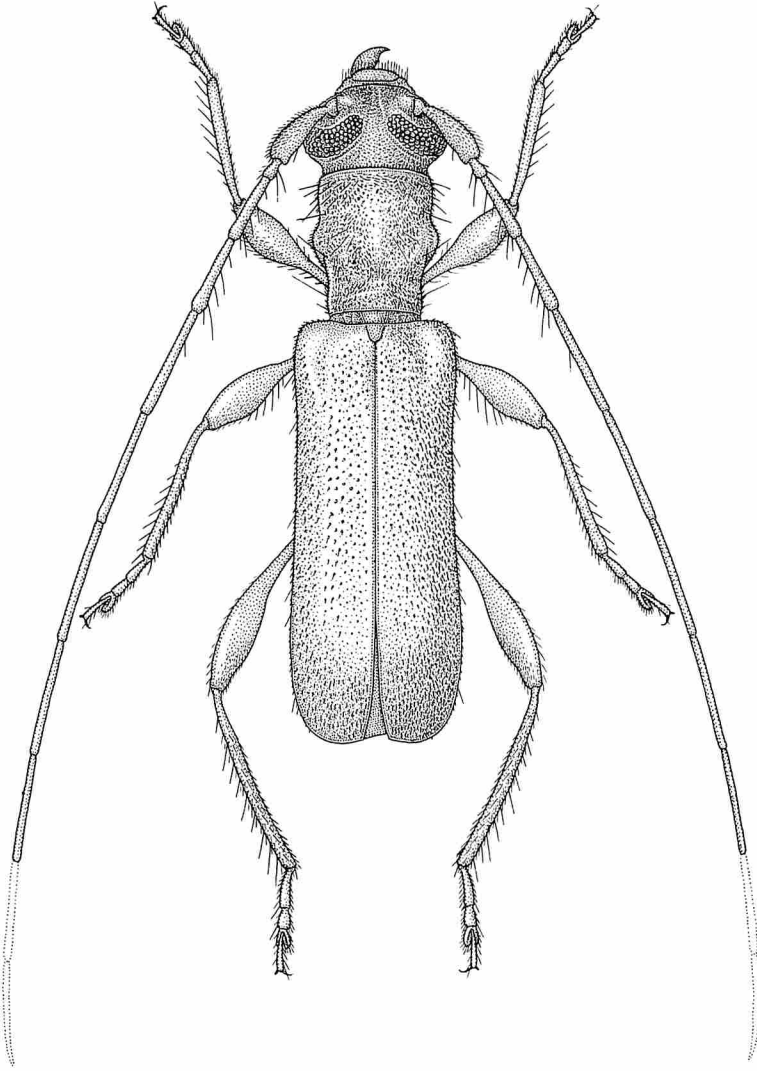


Fig. 1. *Stenhomalus longicornis* (BATES), comb. nov., lectotype female.

shagreened, slightly longer than segment 3, densely with pale short hairs, segment 2 distinctly reduced, slightly longer than width, moderately dilated apicad, segments 3 and 4 moderately thickened apicad, the latter almost equal in length to scape, segment 5 weakly thickened apicad, 1.42 times as long as segment 4, segment 6 the longest, segment 7 slightly shorter than the preceding segment (segments 10–11 missing in the lectotype).

Pronotum distinctly divergent to apex, distinctly constricted at apical fourth and rather weakly so at basal eighth, PL/PA 1.43, PB/PA 0.80, PL/PW 1.05, PW/EW 0.76,

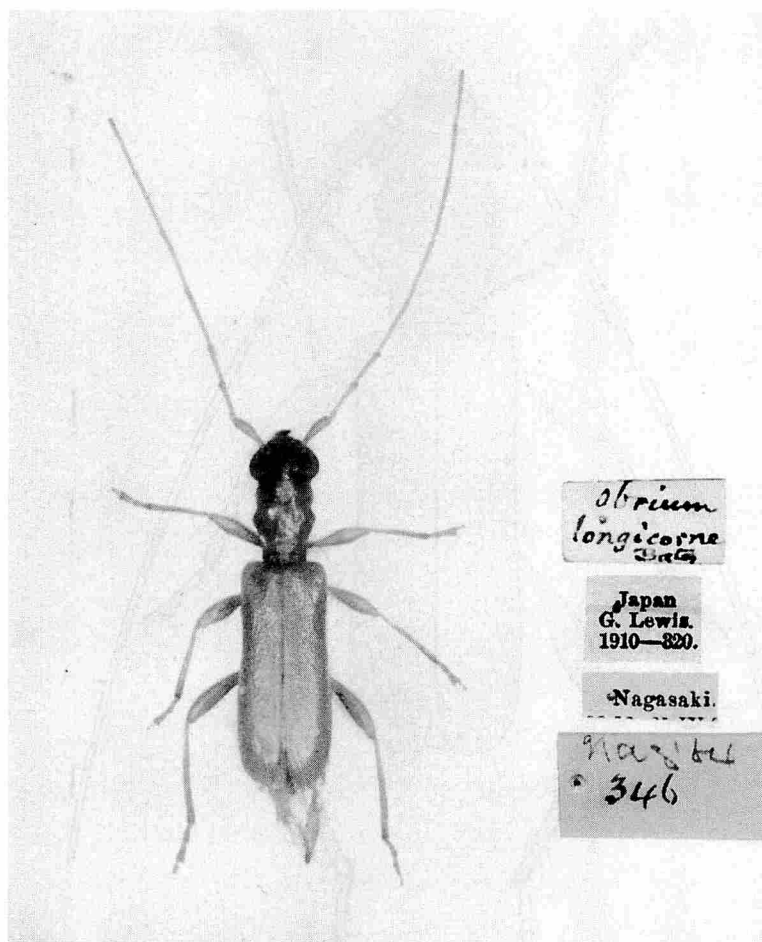


Fig. 2. *Stenhomalus longicornis* (BATES), comb. nov., lectotype female, deposited in the Natural History Museum, London, with the labels attached to the specimen.

PL/EL 0.32; apex slightly arcuate and not bordered, base gently sinuate, very narrowly bordered; sides subparallel in front, moderately arcuate to apical fourth, with lateral tubercles strongly dilated to middle and almost straightly narrowed to basal fifth, basal collar gently narrowed to basal angles; disc moderately convex, uneven, rather weakly raised near apical fourth, with a pair of oblique oblong swellings near middle and a median indistinct one just behind middle, slightly raised at middle of basal margin; surface almost impunctate though provided with a few shallow punctures on dorsum, sparsely clothed with long pale frying hairs mostly on apical half, and densely with pale recumbent pubescence, which is conspicuous at sides and on impressed parts except for dorsal swellings. Scutellum small, rather elongate trapeziform, almost smooth and glabrous.

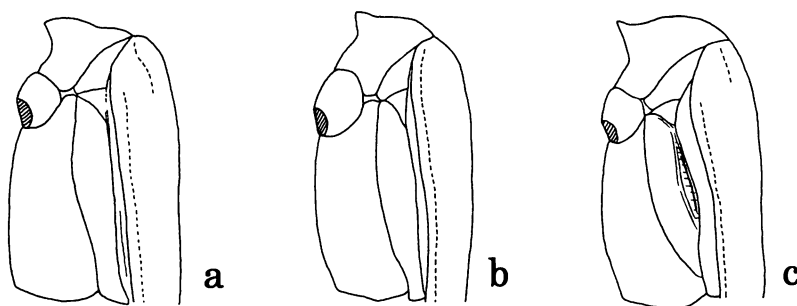


Fig. 3. Lateral view of meso- and metathoraces in the female; *Stenhomalus longicornis* (BATES), from Nagasaki, Japan (a), *S. fenestratus* WHITE from Taiwan, type species of the genus *Stenhomalus* (b), and *Obrium cantharium shimomurai* TAKAKUWA from Hokkaido, type species of the genus *Obrium* (c).

Elytra fairly broad, weakly ample postriad, EL/EW 2.48; sides with roundly angulate humeri, straightly narrowed to basal 5/12, and then weakly divergent and arcuate to apices which are completely rounded; disc uniformly weakly convex, almost even, weakly raised near suture just behind scutellum, rather densely and somewhat irregularly provided with medium-sized punctures, the punctures shallower and sparser on basal 2/5, almost smooth near humeri and apical fifth, densely clothed with pale yellow pubescence and sparsely with short hairs of the same colour.

Ventral surface of thoraces almost smooth and thinly haired, partly provided with punctures; prosternum with coarse punctures near middle, with prosternal process constricted at basal third, gradually dilated to just behind middle, and then strongly dilated apicad; metasternum with a few shallow indistinct punctures in middle of apical half, with a median furrow extending from apical margin to basal fourth. Abdomen broad, somewhat lingulate in dry condition (apical segments reduced); sternite 3 (1 invisible) very wide, 6/11 as long as the basal width, gently narrowed apicad, with a few punctures on posterior part to middle, sternite 4 almost straightly narrowed postriad, deeply arcuately emarginate at apical margin, provided with dense fringes of long pale orange hairs along the arcuate line in middle, sternite 5 transversely truncate at apical margin; sternite 6 deeply triangularly concave at apical margin, sternite 7 rounded at apical margin and punctured along the margin.

Legs moderate in length, stout; femora slightly compressed, with hind pair weakly clavate in apical 2/5; hind tibiae weakly arcuate, compressed; hind tarsi with 1st segment 0.77 times as long as the following two segments combined.

Body length: 5.3 mm.

Specimen examined. 1 ♀ (lectotype), "Japan G. Lewis 1910-320", "Nagasaki", "Obrium longicorne Bat", "Nag. 54 346 (underside of mounting card)." The specimen examined is in rather a good condition though the apical two segments of the right antenna and the apical three segments of the left antenna are missing.

Distribution. Kyushu (Nagasaki), Japan.

Notes. No additional record of this obriine species has been available from Japan and its adjacent areas, and no close relatives of the species are known in the obriine fauna of Japan. It is possible that *S. longicornis* comb. nov. may have been described on a foreign specimen from somewhere in East Asia, but we cannot confirm the matter until additional specimens are obtained.

In my present opinion, *S. longicornis* is probably closest to *S. unicolor* NIISATO et HUA, which is quite recently described from East China as a relative of *S. lighti*. However, the Chinese species is clearly separable from *S. longicornis* by its long and rather slender body, more approximate eyes, strong constriction just before and behind lateral tubercles of the pronotum, and longer elytra.

要 約

新里達也：ヒゲナガアメイロカミキリの分類学的再検討。——ヒゲナガアメイロカミキリ *Obrium longicorne* BATES の基準標本系列（ロンドン自然史博物館所蔵）を詳細に検討し、本論文において必要な分類学的処置を行った。

本種の基準標本系列には2種が含まれている。1個体はBATES (1873)の原記載によく適合する真のヒゲナガアメイロカミキリであり、ほかの2個体はトワダモンメダカカミキリ *Stenhomalus lighti* GRESSITT であった。BATES は、記載作成に際して扱った3個体の標本のうち、真の本種を除く2個体を、同一種の黒化個体とみなしたようである。今回、原記載によく適合する長崎産の1個体を後基準標本に指定した。

一方、このヒゲナガアメイロカミキリが、実はメダカカミキリ属 *Stenhomalus* に所属すべきものであることが判明した。メダカカミキリ属は、他のアメイロカミキリ族の諸属から、長く発達した後胸前側板や後胸前側板・後側板間の縦隆起の存在、前胸背板に密生する軟毛などによって区別されるが、ヒゲナガアメイロカミキリの後基準標本は、それらの特徴をすべて備え、ムナミヅアメイロカミキリ属 *Obrium* の固有形質である後胸前側板・後側板間の深い縦溝を欠いている。なお、和名は普及性を配慮し、旧来どおりの名称を残した。

本種にもっとも類縁が近いのは、中国東部から比較的最近に発見された *Stenhomalus unicolor* NIISATO et HUA だと考えられる。この種は、トワダモンメダカカミキリとも近縁な種であるが、ヒゲナガアメイロカミキリとは、細長い体やより近接する複眼、前胸背板両側の中央隆起前後の強いくびれ、より長い翅鞘などの特徴から容易に区別することができる。また、後基準標本に付されたラベルによれば、本種の産地は「Nagasaki (長崎)」となっているが、日本国内はおろか周辺地域からも、この種に該当するアメイロカミキリ族の種は、現在までのところ再発見されていない。

References

- BATES, H. W., 1873. On the longicorn Coleoptera of Japan. *Ann. Mag. nat. Hist.*, (4), **12**: 1–39.
 GRESSITT, J. L., 1935. The Obriini of the Japanese Empire (Coleopt., Cerambycidae). *Ins. matsum.*, **9**: 144–153.
 HAYASHI, M., 1954. Cerambycidae. *Coloured Illustrations of the Insects of Japan*, **1**: 18–76, pls. 9–27. Hoikusha, Osaka. (In Japanese, with English book title.)

- HAYASHI, M., 1955. Cerambycidae. *Ibid.*, (Rev. ed.), **1**: 132–190, pls. 41–59.
- 1974. Studies on Cerambycidae from Japan and its adjacent regions (Col.), XX. *Ent. Rev. Japan*, **26**: 11–17.
- 1983. Study of Asian Cerambycidae (Coleoptera) V. *Bull. Osaka Jonan Women's Jr. Coll.*, (16): 29–44.
- 1984. Cerambycidae. In HAYASHI, M., K. MORIMOTO & S. KIMOTO (eds.), *The Coleoptera of Japan in Color*, **4**: 1–146 [incl. pls. 1–28]. Hoikusha, Osaka. (In Japanese, with English book title.)
- KUSAMA, K., 1973. A List of Ecological and Distributional Data for the Japanese Cerambycidae. 160 pp. (In Japanese.)
- *et al.*, 1984. The Longicorn-Beetles of Japan in Color. Jpn. Soc. Coleopterol. (ed.). 565 pp., 96 pls. Kodansha, Tokyo. (In Japanese with English descriptions of new taxa.)
- KOJIMA, K., & M. HAYASHI, 1969. Longicorn beetles. *Ins. Life Japan*, **1**, 295 pp., 56 pls. Hoikusha, Osaka. (In Japanese.)
- MATSUSHITA, M., 1933. Beitrag zur Kenntnis der Cerambyciden des japanischen Reichs. *J. Fac. Agric. Hokkaido imp. Univ.*, **34**: 157–445 + i–x, pls. 1–5.
- MITONO, T., [1941]. Cerambycidae. *Cat. Coleopt. Japon.*, (94): 1–227 + 1–56.
- NAKANE, T., 1976. Cerambycidae 26. Coleoptera of Japan (n. s.) (29). *Nat. & Ins., Tokyo*, **11**(3): 9–13. (In Japanese.)
- NIISATO, T., 1991. True identity of a Japanese species of the genus *Obrium* (Coleoptera, Cerambycidae). *Elytra, Tokyo*, **19**: 158.
- 1992. Subfamily Cerambycinae. In OHBAYASHI, N., M. SATO & K. KOJIMA (eds.), *Illustr. Guide Identific. Longic. Beetles Japan*, pp. 117–146, 467–534. (In Japanese.)
- & HUA, L.-Z., 1998. Three additional species of the tribe Obriini (Coleoptera, Cerambycidae) from China. *Elytra, Tokyo*, **26**: 451–460.
- & M. TAKAKUWA, 1996. New record of *Obrium semiformosanum* (Coleoptera, Cerambycidae) from northwestern Kyushu, Southwest Japan. *Ibid.*, **24**: 141–146.
- OHBAYASHI, K., 1959. New Cerambycidae from Japan. (5). *Ent. Rev. Japan*, **10**: 1–3.
- 1963. Cerambycidae. In NAKANE, T., *et al.* (eds.), *Iconographia Insectorum Japonicorum Colore naturali edita*, **2** (Coleoptera): 267–318, pls. 134–159. (In Japanese with Latin book title.)
- & N. OHBAYASHI, 1965. New forms of Cerambycidae from the Ryukyus (Coleoptera). *Bull. Jap. ent. Acad.*, **2**(1): 1–5.
- PIC, M., 1904. Description d'un *Obrium* du Japon et note de chasse. *Mat. Long.*, **5**(1): 22.
- SEKI, K., 1946. Catalogue of the Longicorn-Beetles of New Japan. 127 pp. (In Japanese.)