

Revised Status of a Colydiid Species Known as “*Lasconotus niponius* (LEWIS)” (Coleoptera, Zopheridae)

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Abstract A zopherid species known as *Bitoma niponica* or *Bitoma niponia*, recently transferred to the genus *Lasconotus*, was found to consist of two different species. One species distributed in the western half of Japan is considered to be *Lasconotus niponius* (LEWIS) and the other in the central part of Japan is described here as a new species, *Lasconotus okadai*. Thus, three species of the genus *Lasconotus* are recognized in Japan, including *Lasconotus sculptratus* (SHARP).

Lasconotus niponius (LEWIS, 1879) was illustrated in two Japanese books under the name of “*Bitoma niponica* SHARP” in NAKANE (1963, p. 218, pl. 109, Fig. 18) and “*Bitoma niponia* (LEWIS)” in SASAJI (1985, p. 292, pl. 48, Fig. 1). However, these two are undoubtedly different species, because the illustrations show different body size, body color and shape of antennae. The former is characterized by smaller body size, reddish brown body color and antennal club consisting of two large terminal antennomeres and middle-sized succeeding antennomere, while the latter by larger body size, black body color and antennal club consisting of three terminal antennomeres of equal width. Based on the collecting data, the former is distributed in the western half of Japan and the latter in the central part of Japan.

From the distributional pattern and the morphological features, the former is considered to be the real *Lasconotus niponius* (LEWIS). The decision must, however, be made by the observation of antennal shape in the type specimen and it was done through the courtesy of Dr. Roger G. BOOTH (The Natural History Museum, London), who carefully examined the single type specimen of *Xuthia niponia* and showed me that the shape of antennal club of this species is quite similar to that of “*Bitoma niponica*” in NAKANE (1963).

After the decision that the smaller species inhabiting the western half of Japan should bear the name *Lasconotus niponius*, the other larger one inhabiting central part of Japan must be described as a new species. The two species are described below in detail, and a comparison is made between the two species.

Lasconotus niponius (LEWIS)

(Figs. 1 and 2)

Xuthia niponia LEWIS, 1879, 462.

Xuthia niponica: SHARP, 1885, 71.

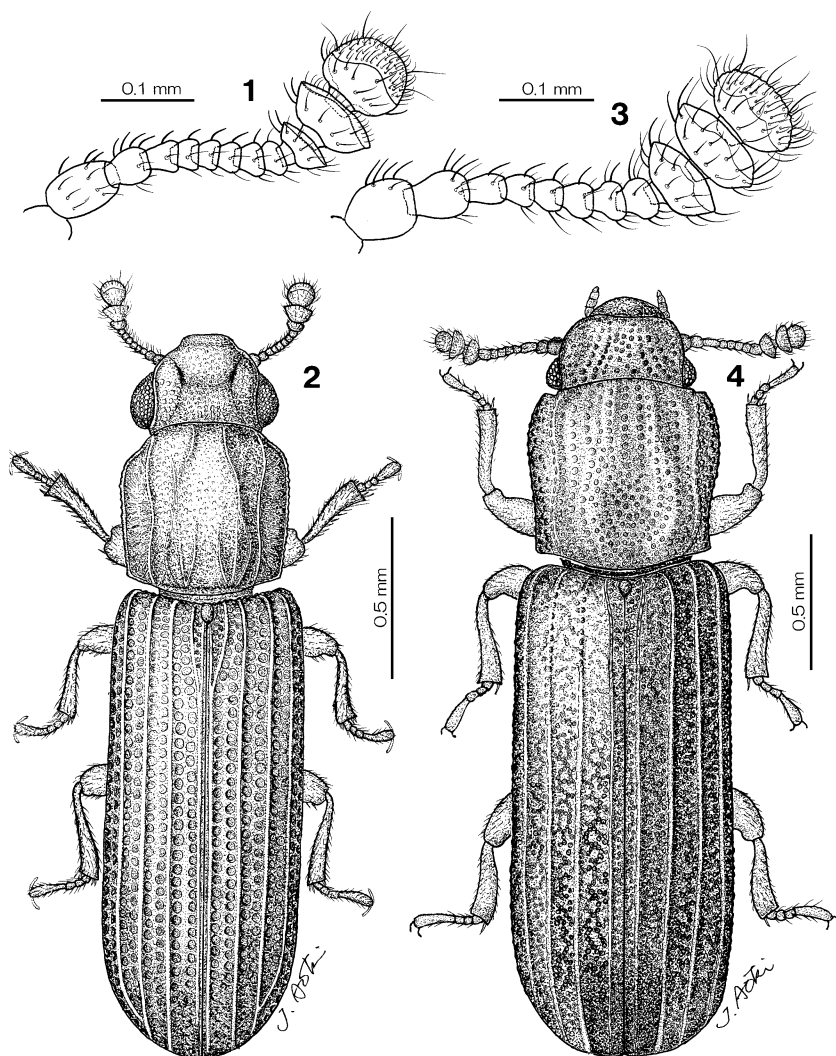
Bitoma niponica SHARP: NAKANE, 1963, 218, pl. 109, fig. 18.

Lasconotus niponius: ŠLIFIŇSKY & SCHUH, 2008, 83.

Lasconotus sp.: AOKI, 2009, 72, fig. 32A.

Body length: 2.05–2.80 (2.23) mm.

Color: Head and thorax dark reddish brown, elytra reddish brown, antennae and legs yellowish brown.



Figs. 1-4. — 1-2, *Lasconotus niponius* (LEWIS, 1879). 3-4, *Lasconotus okadai* sp. nov. Figs. 1 and 3: Antennae.

Head with H-shaped depression, forming gentle swellings in anterior, posterior and lateral parts; clypeus trapezoidal in dorsal view, with straight anterior margin. Eyes large and well produced, diameter of eyes 0.58 times as long as their interspace. Antennae (Fig. 1) eleven-segmented; relative width of antennomeres: I > II > III > IV = V = VI = VII = VIII < IX < X > XI; antennal club consisting of three antennomeres IX, X and XI; terminal antennomere (XI) rounded and divided into two parts, anterior part densely covered with setae and posterior part with a few long setae.

Prothorax slightly longer than wide ($L/W=1.05$), slightly wider at anterior part; antero-lateral angles obliquely cut, posterolateral angles about 120° ; lateral margins finely serrated; dorsal side with some pairs of dull, longitudinal ridges.

Elytra parallel-sided with humeral parts a little projecting anteriorly and apical part broadly

rounded; each elytron with five longitudinal ridges, their interspaces each with two rows of round punctures; fourth ridge connected apically just before terminus with third ridge.

Ventral side. Metasternum sculptured with irregular network on lateral one-third on each side, leaving smooth median part without sculpture and with rather long setae. Median surface of ventrites with irregular network and lateral surface with fine granules. Apical end of each tibia bearing two long spines ventrally and several short spines dorsally.

Type locality. Nagasaki in Kyushu, South Japan.

Collecting data. 1 ex., Hiruzen, Okayama Prefecture, 1~3-VII-1988, A. NISHIYAMA leg.; 1 ex., Nagatani, Ano, Kamiyama, Mie Prefecture, 20-VI-1995, M. YOSHIDA leg.; 3 exs., Suwa, Iga City, Mie Prefecture, 27-VI-1998, N. NARUKAWA leg.; 1 ex., Saikaku-rindō in Tsurugi, Ishikawa Prefecture, 25-V~2-VI-2003, S. YOSHIMICHI leg.; 1 ex., Kuchinoerabu-jima, Kagoshima Prefecture, 12-VII-2005, J. AOKI leg.; 2 exs., Isoyama Beach, Suzuka City, Mie Prefecture, 14-VI-2009, N. NARUKAWA leg.; 2 exs., same data, J. AOKI leg.; 6 exs., Isoyama Beach in Suzuka City, Mie Prefecture, 27-V-2010, J. AOKI leg.

Lasconotus okadai sp. nov.

(Figs. 3 and 4)

Bitoma niponia (LEWIS): SASAJI, 1985, 292, pl. 48, fig. 1; AOKI, 2009, 124, fig. (p. 125).

Body length: 2.50–3.20 (2.82) mm.

Color: Head, thorax and elytra black, antennae and legs dark reddish brown.

Head smoothly rounded, clypeus with arcuate anterior margin; dorsal surface granulate. Eyes small, diameter of eyes 0.39 times as long as their interspace. Antennae (Fig. 3) eleven-segmented, terminal club consisting of three antennomeres (IX, X and XI) almost same in width; the terminal antennomere (XI) transverse and elliptical.

Prothorax slightly longer than wide, widest near anterior portion, anterior and posterior angles distinct; dorsal side with dull longitudinal swellings and a shallow concavity medioposteriorly; whole surface covered with rounded granules; three light spots observed along anterior and posterior margins.

Elytra parallel-sided, with humeral parts weakly projecting anteriorly and apical parts broadly rounded; each elytron with five longitudinal ridges; their interspaces showing seemingly irregular network of granules, but in preparation of removed elytra showing two rows of distinct round punctures; fourth ridge connected with third ridge apically just before terminus.

Ventral side. Metasternum and ventrites wholly covered with distinct sculptures, without smooth or granulate parts. Apical end of each femur provided ventrally with prominent semicircular appendage.

Type-series. Holotype (NSMT-I-C 200145), Imperial Palace, Chiyoda-ku, Tokyo, 22-VII-2010, J. AOKI leg.; 2 paratypes (NSMT-I-C 200146, 200147), same data as holotype; 1 paratype (NSMT-I-C 200148), 21st Century Forest, Minami-Ashigara City, Kanagawa Prefecture, Central Japan, 30-IV-2009, J. AOKI leg.; 1 paratype (NSMT-I-C 200149), Sekimoto-chō, Kita-Ibaraki City, Ibaraki Prefecture, Central Japan, 16-IX-2005, K. TAKAHASHI leg.; 2 paratypes (NSMT-I-C 200150, 200151), Research Forest of Kyoto University, Miyama, Kyoto, 31-V-2010, J. AOKI leg. Holotype and paratypes are deposited in the collection of the National Museum of Nature and Science, Tokyo (NSMT).

Other material. 2 exs., Imperial Palace, Chiyoda-ku, Tokyo, Central Japan, 22-VII-2010, J.

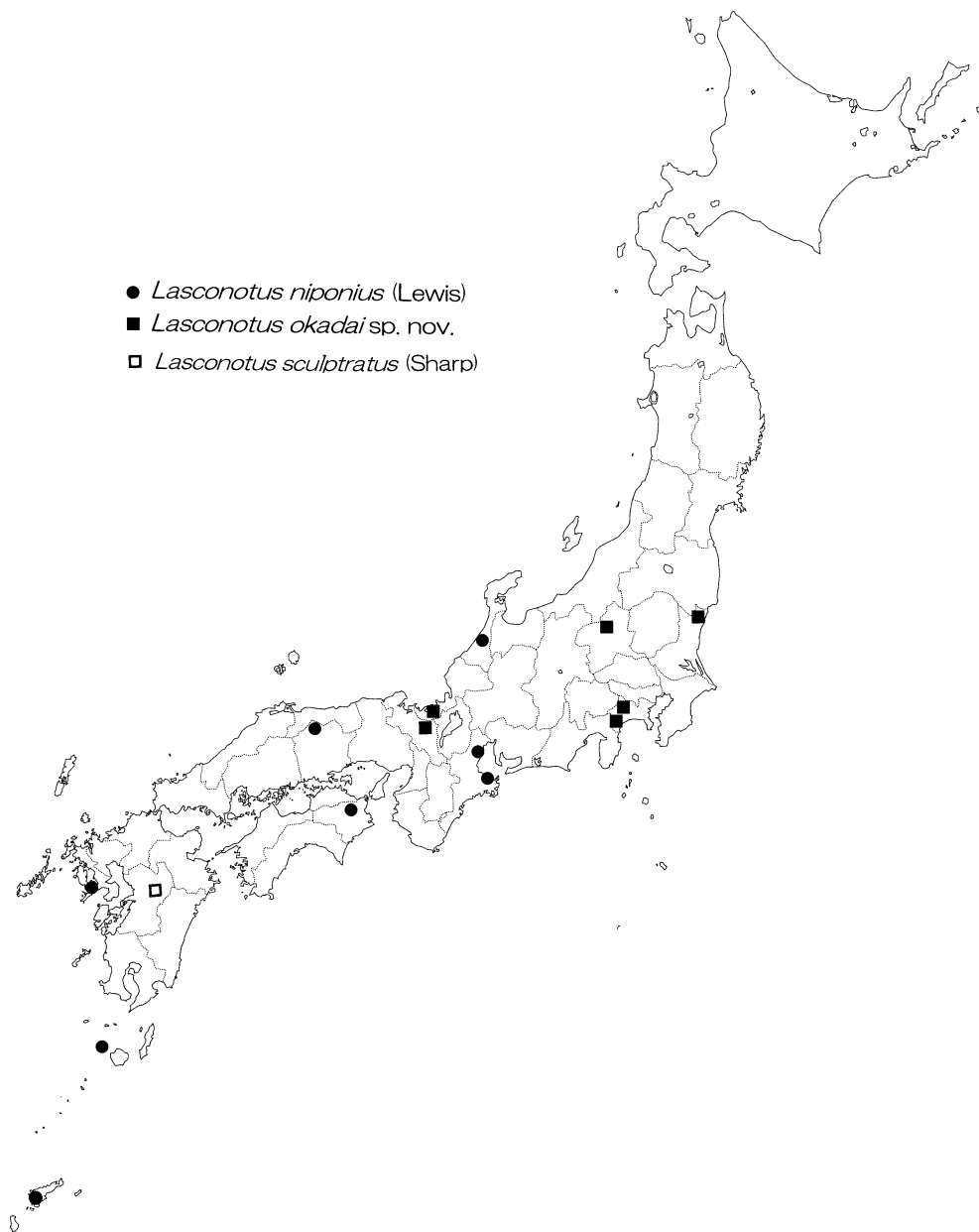


Fig. 5. Distribution of the three Japanese species of *Lasconotus*.

AOKI leg.; 1 ex., Ohwaku-Dani, Hakone, Kanagawa Prefecture, Central Japan, 26-VI-1997, Y. HIRANO leg.; 1 ex., 21st Century Forest, Minami-Ashigara City, Kanagawa Prefecture, Central Japan, 29-IV-2008, Y. HIRANO leg.; 1 ex., Doudaira in Tanzawa, Kanagawa Prefecture, Central Japan, 18-VI-1995, Y. NOTSU leg.; 1 ex., Kawafuru, Niiharu-Mura, Gumma Prefecture, Central Japan, 2-VI-1999, K. OKADA leg.; 1 ex., Onyû Pass, Obama City, Fukui Prefecture, Central Japan, 1-X-2007, S. INOUE leg.

Table 1. Comparison of characteristic features between two Japanese *Lasconotus* species.

	<i>L. niponius</i> (LEWIS)	<i>L. okadai</i> sp. nov.
Body length (mm)	2.05–2.80	2.50–3.20
Color		
Body	Reddish brown	Black
Legs	Yellowish brown	Dark reddish brown
Antennomere IX	Larger than VIII, smaller than X and XI	Equal in size to X and XI
Eyes	Large	Small
Length/interspace of eyes	0.58	0.39
Terminal appendages of tibiae	Inconspicuous	Prominent
Light spots along anterior and posterior margins of pronotum	Absent	Present
Mdian part of metasternum	Smooth	Sculptured
Lateral parts of ventrites	With fine granules	Without granules
Distribution	Southwestern part of Japan	Central part of Japan

Key to the Three Japanese Species of the Genus *Lasconotus*

1. Elytra reddish brown; antennal club consisting of two distinctly broad terminal segments (X and XI) and moderately broad segment (IX); eyes large; body length: 2.05–2.80 mm...
..... *L. niponius* (LEWIS, 1879)
- Elytra black; antennal club consisting of equally broad segments (IX, X and XI); eyes small
..... 2
2. Ridges on pronotum strong and distinct; ridges on elytra swelling out near apical part; body length: 2.50 mm *L. sculptratus* (SHARP, 1885)
- Ridges on pronotum weak and dull; ridges on elytra straight; body length: 2.50–3.20 mm...
..... *L. okadai* sp. nov.

Acknowledgement

I would like to extend my heartfelt thanks to Mr. Keiji OKADA (Bioindicator Co., Ltd., Tokyo), the first entomologist who suggested me the possibility that so-called *Bitoma niponia* contained two different species. He also showed me his specimens of the species which was wrongly considered *B. niponia* and should be described as a new species. The new species *okadai* is, therefore, named after Mr. OKADA. I also greatly indebted to Dr. Roger G. BOOTH (The Natural History Museum, London) who has examined antennal structure of the holotype specimen of *Xuthia niponia* and informed the result of his observation to me. It was very useful to make decision that the southwestern species was real *niponia*. The other materials of *Lasconotus niponia* and *L. okadai* were offered or lent me by Mr. Y. HIRANO, Mr. S. INOUE, Mr. N. NARUKAWA, Mr. N. NISHIYAMA, Mr. Y. NOTSU, Mr. S. OHMOMO, Mr. K. TAKAHASHI, Mr. M. YOSHIDA and Mr. S. YOSHIMICHI, to whom I express my hearty thanks.

I also wish to express my sincere thanks to Dr. Shun-Ichi UÉNO, emeritus curator of the National Museum of Nature and Science, for his critical reading of my manuscript.

要 約

青木淳一：いわゆるヒメナガセスジホソカタムシ *Lasconotus niponius* (LEWIS) の 2 種への分割（コウチュウ目アトコブゴミムシダマシ科）。—— ヒメナガセスジホソカタムシは原色昆虫大図鑑第 2 巻（甲虫篇）（北隆館）に *Bitoma niponica* SHARP（種小名のスペリング，命名者名はともに誤り），原色日本甲虫図鑑（III）（保育社）に *Bitoma niponia* (Lewis) として図示解説されているが，これらは図や記載から見て同種とは思えない。はたしてどちらが本物の *niponia* であるかを判定するために調査した結果，日本南西部に分布する前者が本物であり，日本中部に分布する後者は未記載種であることが分かった。両者は触角の形態，複眼の大きさ，体色などによって容易に区別される。なお，分類上の所属がナガセスジホソカタムシ属 *Bitoma* からユミセスジホソカタムシ属 *Lasconotus* に移されたため，混乱を避けるために和名を変更し，以下の 2 種として記載した：ヒメユミセスジホソカタムシ（改称）*Lasconotus niponius* (LEWIS, 1879) およびオカダユミセスジホソカタムシ *Lasconotus okadai* sp. nov. なお，青木淳一著「ホソカタムシの誘惑」に載せられているヒメナガセスジホソカタムシの図は実は後者の種のものである。

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