

Distribution of Donaciinae (Coleoptera, Chrysomelidae) in and around Niigata Prefecture, Central Japan

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Abstract Eleven species of the chrysomelid subfamily Donaciinae were recorded from Niigata Prefecture: *Plateumaris sericea* (LINNAEUS), *Plateumaris constricticollis* (JACOBY), *Donacia bicoloricornis* CHEN, *Donacia clavareau* JACOBSON, *Donacia nitidior* (NAKANE), *Donacia hiurai* KIMOTO, *Donacia japana* CHÛJÔ et GOECKE, *Donacia vulgaris* ZSCHACH, *Donacia ozensis* NAKANE, *Donacia lenzi* SCHÖNFELD, and *Donacia provostii* FAIRMAIRE. Of these, *P. sericea*, *D. nitidior* and *D. provostii* are distributed in Sado Island. It is possible that *Donacia sparganii gracilipes* JACOBY is distributed in the high altitude area of Niigata Prefecture.

The chrysomelid subfamily Donaciinae includes about 20 Japanese species. Of these, nine species have been recorded in Niigata Prefecture (e.g., OHNO, 1968; BABA, 1972; Fossil Insect Research Group for Nojiri-ko Excavation, 1980, 1985; INAZUMI, 1987). From 1991 to 1999, I surveyed distribution of Donaciinae in and around Niigata Prefecture (Figs. 1, 2), and also examined specimens deposited in the National Science Museum, Tokyo [NSMT] and the Osaka Museum of Natural History [OMNH]. I recognized 12 species in total. Their distribution in the surveyed area are as shown in Figs. 2–8.

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Plateumaris sericea (LINNAEUS)

New records. [Niigata Pref.] 36♂, 41♀, Sankyôno-ike, Masaragawa, Ryôtsu City (Sado Is.), alt. 290 m, 14–VI–1987, K. KATSURA leg. (pers. comm. from Koujiro KATSURA, 1999); 3♂, 1♀, Miomote, Asahi-mura, 180 m, 2–VI–1994, M. HAYASHI leg.;

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10♂, 6♀, Kamagui, Asahi-mura, alt. 70 m, 31-V-1996, M. HAYASHI leg.; 3♂, 4♀, Ookurita, Asahi-mura, alt. 150 m, 31-V-1996, M. HAYASHI leg.; 4♂, 6♀, Shimono, Asahi-mura, alt. 50 m, 31-V-1996, M. HAYASHI leg.; 1♀, Sakamizu-gawa, Ooide, Nakajō-machi, alt. 5 m, 29-V-1998, M. HAYASHI leg.; 2♂, Kotsunagi, Tochio City, alt. 100 m, 12-V-1996, M. HAYASHI leg.; 4♂, 6♀, Tajima-tōge, Oguni-machi, alt. 150 m, 9-VI-1996, M. HAYASHI leg.; 1♀, Okanomachi, Takayanagi-machi, alt. 120 m, 13-VI-1996, M. HAYASHI leg.; 6♂, 2♀, Jimichi, Irihiro-mura, alt. 350 m, 12-VI-1993, M. HAYASHI leg.; 2♂, 1♀, Uchigamaki, Ojiya City, alt. 90 m, 8-V-1999, M. HAYASHI leg.; 3♂, Tsuiké, Tōkamachi City, alt. 250 m, 8-V-1999, M. HAYASHI leg.; 9♂, 4♀, Takinosawa, Hakka, Tōkamachi City, alt. 300 m, 14-V-1999, M. HAYASHI leg.; 7♂, 3♀, Futatsuya, Tōkamachi City, alt. 300 m, 18-V-1999, M. HAYASHI leg.; 2♂, 4♀, Tatsuno, Itakura-machi, alt. 250 m, 28-V-1999, M. HAYASHI leg.

Records in Niigata Pref. Aikawa-machi (Sado Is.); Hatano-machi (Sado Is.); Asahi-mura; Sekikawa-mura; Kurokawa-mura; Irihiro-mura; Yunotani-mura; Nagaoka City; Kashiwazaki City; Myōkōkōgen-machi; Myōkō-mura; Itoigawa City: OHNO (1968), BABA (1972), Fossil Insect Research Group for Nojiri-ko Excavation (1980, 1985), INAZUMI (1987), TAKAHASHI (1989), TAKAHASHI & TAKAKUWA (1993), YAMAYA (1996), and this report.

Remarks. This species is widely distributed in the surveyed area (Fig. 3). Its vertical distribution ranges from about 5 to 2,000 m in altitude.

Host plants. *Carex* sp.

Plateumaris constricticollis (JACOBY)

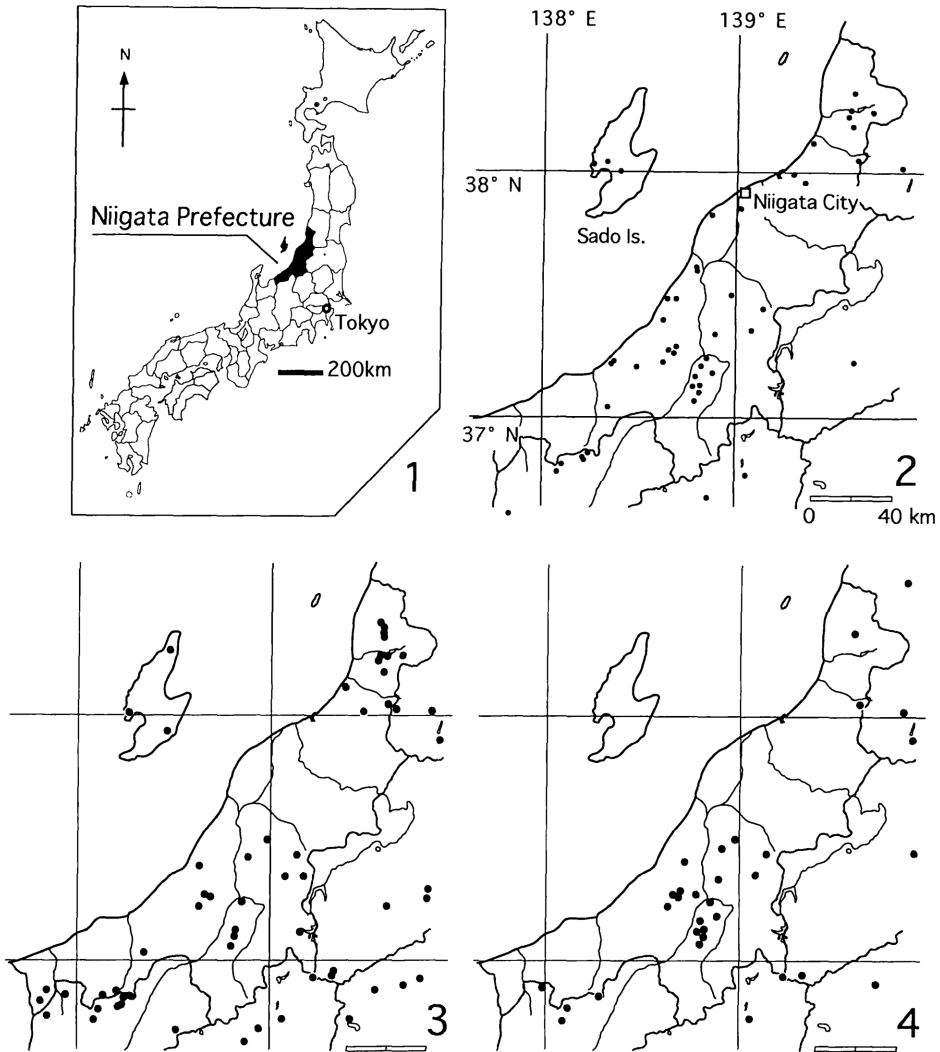
New records. [Niigata Pref.] 23♂, 12♀, Asōda-machi, Nagaoka City, alt. 50 m, 13-V-1999, M. HAYASHI leg.; 16♂, 18♀, Uchigamaki, Ojiya City, alt. 90 m, 8-V-1999, M. HAYASHI leg.; 1♂, Tsuiké, Tōkamachi City, alt. 250 m, 8-V-1999, M. HAYASHI leg.; 5♂, 2♀, Takinosawa, Hakka, Tōkamachi City, alt. 300 m, 14-V-1999, M. HAYASHI leg.; 3♂, 2♀, Futatsuya, Tōkamachi City, alt. 300 m, 18-V-1999, M. HAYASHI leg.; 1♂, 2♀, Tsujimata, Yamato-machi, alt. 210 m, 26-V-1999, M. HAYASHI leg.

Records in Niigata Pref. Asahi-mura; Sekikawa-mura; Kurokawa-mura; Shitada-mura; Tochio City; Yamakoshi-mura; Irihiro-mura; Nagaoka City, Ojiya City; Takayanagi-machi; Oguni-machi; Tōkamachi City: CHŪJŌ (1959), BABA (1972), Fossil Insect Research Group for Nojiri-ko Excavation (1985), INAZUMI (1987); TAKAHASHI & TAKAKUWA (1993), HAYASHI (1997), and this report.

Remarks. This species is commonly found in Chūetsu district (Fig. 4). Its vertical distribution ranges from about 50 to 1,250 m in altitude.

Donacia (Donaciomima) bicoloricornis CHEN

New records. [Niigata Pref.] 1♂, 1♀, Iizuka, Kashiwazaki City, alt. 15 m,



Figs. 1-4. — 1. Index map of the studied area. — 2. Investigated sites in the studied area. — 3-4. Distribution: 3, *Plateumaris sericea*; 4, *Plateumaris constricticollis*.

1-VI-1991, M. HAYASHI leg.

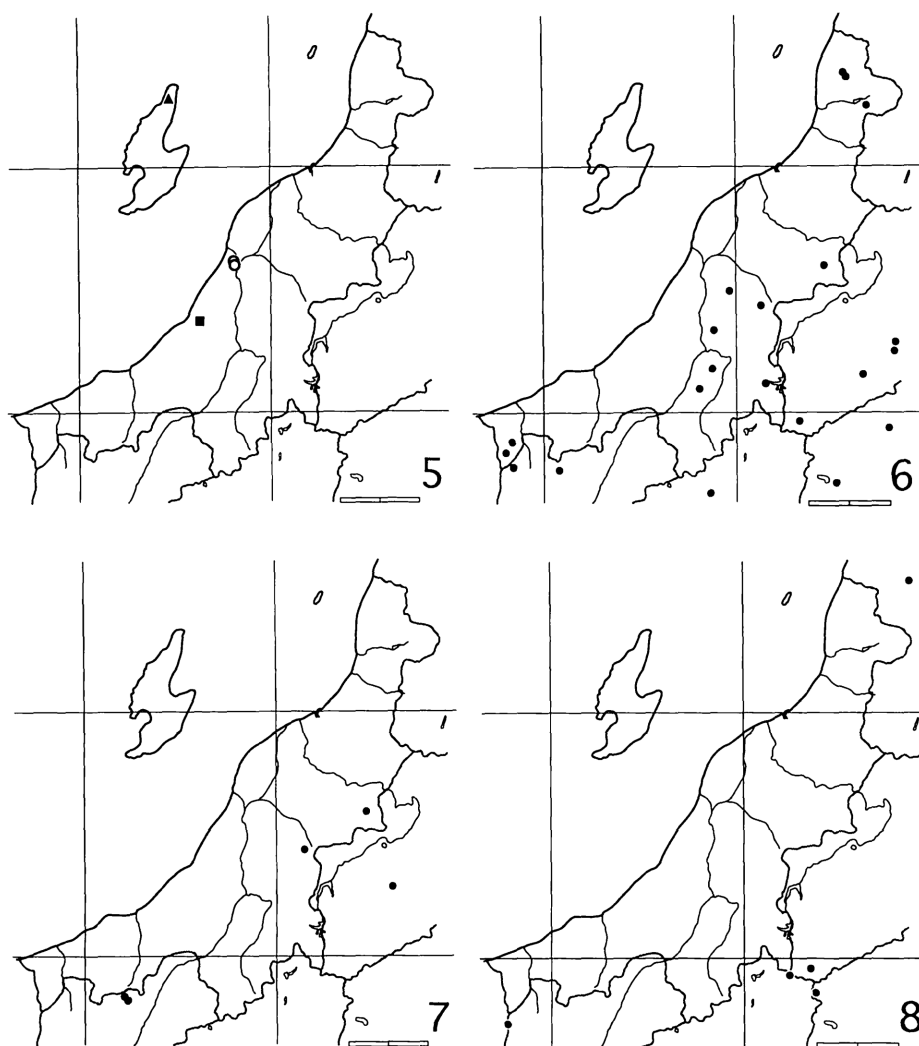
Specimens examined. 1♂, 1♀, Sochi, Kashiwazaki City, Niigata Pref., alt. 15m,

1-VI-1991, M. HAYASHI leg.

Records in Niigata Pref. Kashiwazaki City: INAIZUMI (1987).

Remarks. This species is known only from Kashiwazaki City (Fig. 5: ■).

Host plant. *Typha latifolia*.



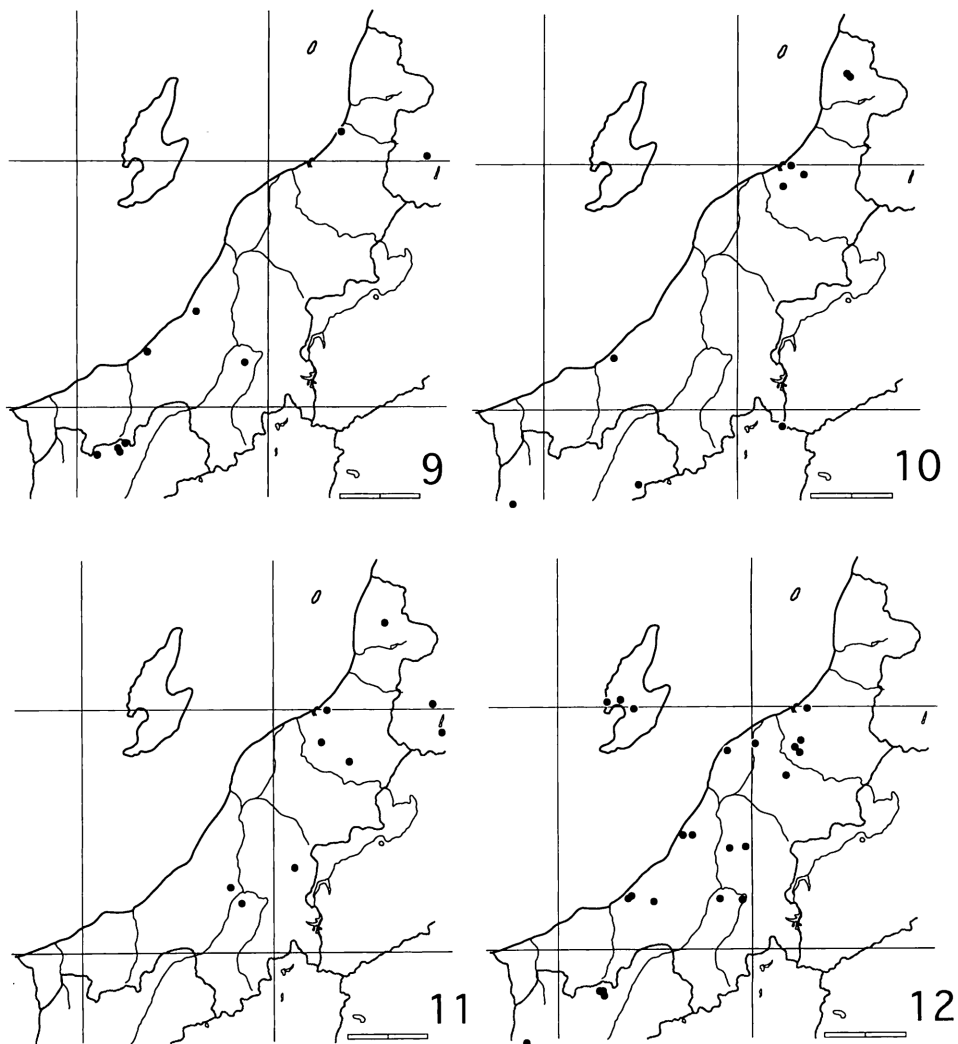
Figs. 5–8. — Distribution: 5, *Donacia bicoloricornis* (■), *Donacia clavareauui* (○), and *Donacia nitidior* (▲); 6, *Donacia hiurai*; 7, *Donacia japana*; 8, *Donacia sparganii gracilipes*.

***Donacia (Donaciomima) clavareauui* JACOBSON**

New records. [Niigata Pref.] 13♂, 13♀, Motomegusa, Teradomari-machi, alt. 30 m, 16–V–1998, M. HAYASHI leg.; 1♂, 1♀, Irikarui, Teradomari-machi, alt. 20 m, 16–V–1998, M. HAYASHI leg.

Remarks. This species is known only from Teradomari-machi (Fig. 5: ○).

Host plant. *Bolboschoenus fluviatilis* subsp. *Yagara*.



Figs. 9–12. Distribution: 9, *Donacia vulgaris*; 10, *Donacia ozensis*; 11, *Donacia lenzi*; 12, *Donacia provostii*.

***Donacia (Donaciomima) nitidior* (NAKANE)**

New records. [Niigata Pref.] 1♂, Sankyōno-ike, Masaragawa, Ryōtsu City (Sado Is.), alt. 290 m, 14–VI–1987, H. OKUNO leg. (pers. comm. from Koujiro KATSURA, 1999).

Remarks. This species has been known only from Ryōtsu City (Fig. 5: ▲).

***Donacia (Donaciomima) hiurai* KIMOTO**

New records. [Niigata Pref.] 1 ♂, 1 ♀, Miomote, Asahi-mura, alt. 180 m, 2–VI–1994, M. HAYASHI leg.; 3 ♂, 2 ♀, Kotsunagi, Tochio City, alt. 100 m, 12–V–1996, M. HAYASHI leg.; 1 ♂, Tsujimata, Yamato-machi, alt. 210 m, 26–V–1999, M. HAYASHI leg.; 2 ♂, Takinosawa, Hakka, Tôkamachi City, alt. 300 m, 14–V–1999, M. HAYASHI leg. [Gunma Pref.] 9 ♂, 5 ♀, Koike-numa, Niiharu-mura, alt. 780 m, 31–V–1992, M. HAYASHI leg.

Specimens examined. 1 ♂ [Holotype], Ginzandaira, Niigata Pref., 27–VI–1970, I. HIURA leg. [OMNH].

Records in Niigata Pref. Asahi-mura; Kurokawa-mura; Kamikawa-mura; Shitada-mura; Tochio City; Tôkamachi City; Yamato-machi; Yunotani-mura; Itoigawa City: BABA (1972), KIMOTO (1983), Fossil Insect Research Group for Nojiri-ko Excavation (1985), TAKAHASHI & TAKAKUWA (1993), and this report.

Remarks. This species is distributed on the hills and in mountainous districts (Fig. 6). Its vertical distribution ranges from about 100 to 1,900 m in altitude.

Host plant. *Carex* sp.

***Donacia (Donaciomima) japana* CHÛJÔ et GOECKE**

New records. [Fukushima Pref.] 1 ♂, 1 ♀, Yanohara, Shôwa-mura, 12–VII–1992, M. HAYASHI leg.

Specimens examined. 9 ♂, 1 ♀, Kurokawa, Echigo (=Niigata Pref.), 7–V–1958, K. BABA leg. [OMNH].

Records in Niigata Pref. Kurokawa-mura; Kamikawa-mura; Shitada-mura: BABA (1972), Fossil Insect Research Group for Nojiri-ko Excavation (1985).

Remarks. This species has been known only from several localities (Fig. 7).

Host plant. *Sparganium* sp.

***Donacia (Donaciomima) sparganii gracilipes* JACOBY**

Specimens examined. 2 ♂, Ozegahara, Gunma Pref., 28~31–VIII–1978, T. YAMASAKI leg. [NSMT]; 1 ♂, 1 ♀, Jûbee-ike, Hinoemata, S. Aizu, Fukushima Pref., alt. 1,490 m, 11~12–VIII–1986, M. TOMOKUNI leg. [NSMT].

Remarks. This species has been known from high altitude areas of Yamagata, Fukushima, Tochigi, Gunma and Nagano Prefectures (NAKANE, 1954; Fossil Insect Research Group for Nojiri-ko Excavation, 1985; Fig. 8). Its vertical distribution ranges from about 700 to 2,200 m in altitude. It is possible that the species is distributed in the high places of Niigata Prefecture.

***Donacia (Donaciomima) vulgaris* ZSCHACH**

New records. [Niigata Pref.] 1 ♀, Sakamizu-gawa, Oide, Nakajô-machi, alt. 5 m,

29-V-1998, M. HAYASHI leg.; 6♂, 4♀, Tsujimata, Yamato-machi, alt. 210 m, 26-V-1999, M. HAYASHI leg.; 1♂, Asahi-ike, Ogata-machi, alt. 10 m, 30-V-1999, M. HAYASHI leg.; [Yamagata Pref.] 3♂, Koyasawa, Kawanishi-machi, alt. 340 m, 4-X-1998, M. HAYASHI leg.

Records in Niigata Pref. Nakajō-machi; Kashiwazaki City; Ogata-machi; Yamato-machi: INAIZUMI (1987) and this report.

Remarks. This species is widely distributed in the surveyed area but is known only from several localities (Fig. 9). Its vertical distribution ranges from about 5 to 1,200 m in altitude.

Host plants. *Sparganium* sp., *Typha latifolia*.

Donacia (Donacia) ozensis NAKANE

New records. [Niigata Pref.] 4♂, 3♀, Masugata, Ijimoto, Shibata City, alt. 20 m, 27-V-1998, M. HAYASHI leg.; 1♂, 1♀, Kiyogata, Futatsuyama, Shiunji-machi, alt. 10 m, 18-VI-1998, M. HAYASHI leg., 11♂, 13♀, 19-VII-1998, M. HAYASHI leg., 8♂, 6♀, 25-IX-1999, M. HAYASHI leg.

Specimens examined. 1♂, 1♀, Ozegahara, Gunma Pref., 8-VIII-1950, S. UENO leg. [NSMT]; 5♂, 5♀, Shiga-kōgen, Nagano Pref., 5-VIII-1978, M. SATŌ leg. [NSMT].

Records in Niigata Pref. Asahi-mura; Shibata City; Toyosaka City; Shiunji-machi; Ogata-machi: Fossil Insect Research Group for Nojiri-ko Excavation (1981, 1985) and this report.

Remarks. This species is widely distributed in the surveyed area but is known only from several localities (Fig. 10). Its vertical distribution ranges from about 10 to 1400 m in altitude.

Host plant. *Nuphar japonicum*.

Donacia (Cyphogaster) lenzi SCHÖNFELD

New records. [Niigata Pref.] 1♂, 1♀, Kiyogata, Futatsuyama, Shiunji-machi, alt. 10 m, 25-IX-1999, M. HAYASHI leg.; 13♂, 7♀, Kagamiga-ike, Ikenodaira, Ojiya City, alt. 300 m, 23-IX-1999, M. HAYASHI leg.

Records in Niigata Pref. Asahi-mura; Shiunji-machi; Sasakami-mura; Mikawa-machi; Irihiro-mura; Ojiya City: Fossil Insect Research Group for Nojiri-ko Excavation (1981, 1985) and this report.

Remarks. This species is widely distributed in the surveyed area but is only known from several localities (Fig. 11). Its vertical distribution ranges from about 15 to 900 m in altitude.

Host plant. *Brasenia schreberi*.

Donacia (Cyphogaster) provostii FAIRMAIRE

New records. [Niigata Pref.] 5♂, 7♀, Ooura, Aikawa-machi (Sado Is.), alt. 25 m, 8–VIII–1999, M. HAYASHI leg.; 1♀, Higashi-hirashimizu, Kanai-machi (Sado Is.), alt. 55 m, 8–VIII–1999, M. HAYASHI leg.; 9♂, 5♀, Hatano, Hatano-machi (Sado Is.), alt. 20 m, 7–VIII–1999, M. HAYASHI leg.; 2♀, Kiyogata, Futatsuyama, Shiunji-machi, alt. 10 m, 18–VI–1998, M. HAYASHI leg.; 9♂, 4♀, 19–VII–1998, M. HAYASHI leg.; 2♂, 1♀, 25–IX–1999, M. HAYASHI leg.; 1♂, 2♀, Oodori-gawa, Shirone City, alt. 2 m, 18–VII–1998, M. HAYASHI leg.; 4♂, 5♀, Sakata, Akatsuka, Niigata City, alt. 5 m, 10–VII–1998, M. HAYASHI leg.; 1♂, 2♀, 18–VII–1998, M. HAYASHI leg.; 1♂, Ushirodani, Nishiyama-machi, alt. 50 m, 7–VII–1996, M. HAYASHI leg.; 1♂, Hamatsuda, Nishiyama-machi, alt. 10 m, 7–VI–1998, M. HAYASHI leg.; 1♀, Kagamiga-ike, Ikenodaira, Ojiya City, alt. 300 m, 23–IX–1999, M. HAYASHI leg.; 3♂, 5♀, Tsubono, Yoshikawa-machi, alt. 200 m, 12–VII–1998, M. HAYASHI leg.

Specimens examined. 1♀, Nagaoka, Niigata Pref., 8–VIII–1937, A. NOHIRA leg. [NSMT]; 12♂, 5♀, Hasu-ike, Jinnoue, Muramatsu-machi, Niigata Pref., 14–VIII–1986, Y. MIYATAKE leg. [OMNH].

Records in Niigata Pref. Aikawa-machi (Sado Is.); Kanai-machi (Sado Is.); Hatano-machi (Sado Is.); Asahi-mura; Kurokawa-mura; Suibara-machi; Shiunji-machi; Niigata City; Shirone City; Muramatsu-machi; Tochio City; Koide-machi; Nishiyama-machi; Ogata-machi; Yoshikawa-machi; Nagaoka City; Ojiya City: OHNO (1968), BABA (1972), Fossil Insect Research Group for Nojiri-ko Excavation (1981, 1985), YAMAYA (1996), and this report.

Remarks. This species is widely distributed in the surveyed area (Fig. 12). Its vertical distribution ranges from about 5 to 800 m in altitude.

Host plants. *Potamogeton* sp., *Brasenia schreberi*, *Nelumbo nucifera*, *Trapa japonica*.

要 約

林 成多：新潟県および周辺地域におけるネクイハムシ亜科（甲虫目ハムシ科）の分布記録。—— 1991年から1999年までの野外調査と、国立科学博物館・大阪市立自然史博物館の収蔵標本の検討結果、および文献記録に基づき、新潟県および周辺地域におけるネクイハムシ亜科の分布記録についてまとめた。その結果、新潟県下には11種が分布しており、それらのうちの3種が佐渡にも分布することが明らかになった。また、これらの種の多くの新産地を確認したので、本報告では従来の記録も含めて分布図を作成した。なお、アシボソネクイハムシ *Donacia sparganii gracilipes* は新潟県下での分布を確認できなかったが、隣接県での分布状況から高標高地に生息している可能性が高い。

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Elytra, Tokyo, **28** (2): 417–418, November 15, 2000

刊 行 物 紹 介

Beetles of the World (A Key and Information System for Families and Subfamilies. J. E. LAWRENCE, A. M. HASTINGS, M. J. DALLWITZ, T. A. PAINE and E. J. ZULCHER 著, CD-ROM, Version 1.0 for Microsoft Windows. CSIRO Publishing.

コウチュウ目の科レベルの分類について、オーストラリアのJ. F. LAWRENCE博士とその共同研究者たちが数年来にわたって取り組んでいることはよく知られている。“Insects of Australia (第2版)”や“Australian Beetles”は、オーストラリアばかりでなく世界的に有用なテキストである。また、LAWRENCE博士らはコンピュータ上での分類同定検索システムの開発にも取り組んでおり、1993年に、“Beetle Larvae of the World” (CD-ROM)を刊行した。また、Elateriformia幼虫の分類データベースをインターネットで公開している(URL:<http://biodiversity.uno.edu/delta/beetle/www/index.htm>)。)