

New Host Plant Record for *Konowia yasumatsui* (Hymenoptera: Xiphydriidae) in Honshu, Japan

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Abstract Based on a successful result of “emergence trapping using dead branches” (ETB), *Betula ermanii* Cham. (Betulaceae) is recorded as a host plant of *Konowia yasumatsui* (Togashi, 1972) (Xiphydriidae). The host plant of this woodwasp was unknown. *Konowia yasumatsui* is recorded from Gunma prefecture for the first time.

Key words: Woodwasp, new host record, *Betula ermanii*, new distribution record, Gunma prefecture.

Introduction

The “emergence trapping using dead branches” (ETB) is often a good method of obtaining woodwasp species difficult to collect otherwise (Shinohara and Kimura, 2024). A recent attempt of ETB using the material from Manza-onsen, Gunma prefecture, central Honshu, by Kojima yielded a female specimen of *Konowia yasumatsui* (Togashi, 1972), a rare species of Xiphydriidae previously known only from eleven specimens including the type material (Shinohara and Hara, 2021). The host plant of *K. yasumatsui* was unknown and this xiphydriid species has not been recorded from Gunma prefecture so far. Here we report on this discovery.

Materials and Methods

We have examined a female specimen of *K. yasumatsui* deposited in National Museum of Nature and Science, Tsukuba, with the following data: Manza-onsen, 1767 m, 36°38'17"N 138°30'12"E, Tsumagoi village, Gunma prefecture, emerged 15. V. 2024 from dead branch of *Betula ermanii*

collected 17. VIII. 2023, H. Kojima. Rearing was performed in Kitanagaike, Nagano city, Nagano prefecture, at an altitude of 335 m. Photographs were taken with a digital camera, Olympus Stylus TG-4 Tough, through an Olympus SZX7 stereo binocular microscope (Fig. 1A) and Olympus Stylus TG-3 Tough (Fig. 1B, C). The digital images were processed and arranged with Adobe Photoshop Elements[®] 15 software.

Results and Discussion

Field observations and ETB records

A female of *K. yasumatsui* (Fig. 1A) emerged on May 15, 2024, from a dead branch of *Betula ermanii* Cham. approximately 43 cm long and 18 to 23 mm thick (Fig. 1B). The dead branch was found on August 17, 2023, lying on the ground along the car road in Manza-onsen (1767 m above sea level) in Gunma prefecture, central Honshu. This small fallen branch caught Kojima's attention because it had many small holes on its surface (Fig. 1C). A detailed examination of the branch after the woodwasp emerged revealed that there were 36 holes with a diameter of approximately 1 to 2.5 mm (Fig. 1C), which were probably the emergence holes of some kind



Fig. 1. *Konowia yasumatsui*, the emerged female (A), the dead branch from which the woodwasp emerged (B), and part of the same branch showing emergence holes (C). Photographed by Shinohara (A) and Kojima (B, C).

of insects, including the xiphydriid. It was impossible to determine the hole through which the female of *K. yasumatsui* emerged.

Host plant

Konowia is represented by four Palearctic species (Shinohara and Hara, 2021). Of these, definite host plant records are available only for *K. betulae* (Enslin, 1911), distributed in Europe, through Siberia and Korea, to Japan (Hokkaido, Kunashiri Island). This widespread species is known to feed on *Betula* sp. (Enslin, 1911; Sinadsky, 1967). Here we record *Betula ermanii* Cham. as the host plant of *K. yasumatsui* for the first time. Because *K. yasumatsui* occurs in Kyushu (Togashi, 1972; Shinohara and Hara, 2021), where *B. ermanii* is not distributed, this woodwasp should also feed on other plant species, probably *B. grossa* Siebold et Zucc., which is the only birch species occurring in Kyushu.

Distribution

Konowia yasumatsui was described from Kyushu (Togashi, 1972) and later recorded from Honshu and Shikoku, with only eleven speci-

mens, including the holotype, known so far (Shinohara and Hara, 2021). In Honshu, this species was known only from Fukushima, Tochigi and Nagano prefectures (Shinohara and Hara, 2021) and this is the first record from Gunma prefecture.

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References

- Enslin, E. 1911. *Pseudoxiphydria*, ein neues Siriciden-Genus aus Deutschland. (Hym.). Deutsche Entomologische Zeitschrift, Berlin [1911]: 177–179.
- Shinohara, A. and H. Hara 2021. *Konowia* Brauns, 1884, and *Monoxiphia*, n. gen. (Hymenoptera, Xiphydriidae): Palearctic woodwasps with simple tarsal claws on all legs. Zootaxa 4920 (4): 565–587.
- Shinohara, A. and M. Kimura 2024. Two woodwasp species emerged from dead branches in Ishigaki-jima Island and Iriomote-jima Island, southwestern Japan (Hymenoptera, Siricidae and Xiphydriidae). Japanese Journal of Systematic Entomology 30: 45–46.

- Sinadsky, Yu. V. 1967. Bioecological peculiarities of development of the apical birch woodwasp (*Pseudoxiphidria betulae* Ensl.). Zoologicheskij Zhurnal 46: 1069–1073 (in Russian with English summary).
- Togashi, I. 1972. Sawflies of Mt. Hiko, Kyushu (Hym., Symphyta). Mushi, Fukuoka 46: 53–64.