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New Collection Records for Four Xiphydriidae (Hymenoptera) from Japan

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Abstract Based on material obtained mainly in yellow pan traps, collection data are given for the following four species of xiphydriid woodwasps: *Lissoxiphyda mitai* Shinohara, 2020, *Xiphydria annulitibia* Takeuchi, 1936, *Xiphydria nagasei* Shinohara, 2019, *Xiphydria ogasawarai* Matsumura, 1927. *Lissoxiphyda mitai* is newly recorded from Fukuoka Prefecture and Miyazaki Prefecture and *Xiphydria nagasei* from Ibaraki Prefecture. *Xiphydria annulitibia* and *Xiphydria ogasawarai* are newly recorded from the eastern part of Hokkaido.
Key words: Xiphydriidae, *Lissoxiphyda mitai*, *Xiphydria annulitibia*, *Xiphydria nagasei*, *Xiphydria ogasawarai*, woodwasp, distribution.

Introduction

The woodwasp family Xiphydriidae is represented by 30 species of nine genera in Japan (Shinohara *et al.*, 2024a). The local fauna of this family has been poorly investigated and it is necessary to accumulate as much material and information as possible to understand the actual distribution patterns of each species and the family as a whole.

We have recently studied a small collection of Xiphydriidae obtained mainly by using yellow pan traps (YPT) in various localities in Japan. Here we give collection data of 15 specimens of four species, many of them being the first distribution records for the areas concerned.

Materials and Methods

Specimens used in this work are kept in the National Museum of Nature and Science, Tsukuba. Morphological examinations were made with an Olympus SZX7 stereo microscope. The map in Fig. 1 was made using Adobe Photoshop Elements® 15 software.

Results and Discussion

Lissoxiphyda mitai Shinohara, 2020

Specimens examined. **KYUSHU**: **Fukuoka Pref.**: 1 ♀, Tagawa-gun, Soeda-cho, Mt. Hikosan, Hikosan Biological Laboratory, 670 m, 33.482°N 130.909°E, 22–23. VII. 2021, YPT, Junta Abe. **Miyazaki Pref.**: 2 ♀, Misato-cho, Kashiba N. F., 723 m, 32°21′11.28″N 131°12′38.05″E, 23–25. VII. 2018, YPT, Kazushige Uemori. **Kagoshima Pref.**: 8 ♀, Tarumizu-shi, Takakuma Experimental Forest, 694 m, 31°32′33.4″N 130°46′30.5″E, 28–30. VII. 2020, YPT, Kazushige Uemori; 1 ♀, Kimotsuki-cho, Kishira, 392 m, 31°14′34.0″N 130°58′26.0″E, 29–31. VII. 2020, YPT, Kazushige Uemori.

Distribution (Fig. 1). Japan (Miyakejima Island, Kyushu, Nakanoshima Island, Amamiôshima Island). Korea (Heuksando Island).

Remarks. This is a rare species, so far known from only eight females from five distant localities (Shinohara *et al.*, 2024b). Here we examined 12 additional females listed above from four localities in Kyushu (Fig. 1). This species is of great interest for two reasons: its distribution and the puzzling behavior of the adults.

The known distribution of this species is peculiar (Fig. 1), and as discussed by Shinohara (2020) and Shinohara *et al.* (2024b), it may only be explained by dispersal through rafting by sea currents of logs containing the larvae. This species is likely to occur also in Shikoku and the Kii Peninsula in southwestern Honshu. The 12 specimens here recorded were collected on mountains at altitudes of 392 to 723 meters in the northern, central and southern parts of Kyushu (Fig. 1).

Shinohara (2020, 2022) and Shinohara and Yamagishi (2024) pointed out that while other xiphydriids are rarely caught in yellow pan traps, the two uncommon xiphydriids, *Indoxiphia prima* Smith, 2019, and *L. mitai*, had been caught almost exclusively in these traps. The 12 females of *L. mitai* reported here were also trapped in yellow pans. For *I. prima* and *L. mitai* no males have been found and the life histories of these species are unknown. It is possible that the reason they can almost only be found in yellow pan traps is because they share still unknown unique biological or behavioral characteristics.

Xiphydria annulitibia Takeuchi, 1936

Specimen examined. **HOKKAIDO:** 1 ♀, Akkeshi-cho, Tokotan, 128 m, YPT, 43°00′N 144°52′E, 23–25. VII. 2021, Kazushige Uemori.

Distribution. Japan (Hokkaido, Kunashiri Island, Honshu, Shikoku). Korea, Russia (Sakhalin, Primorskij kraj).

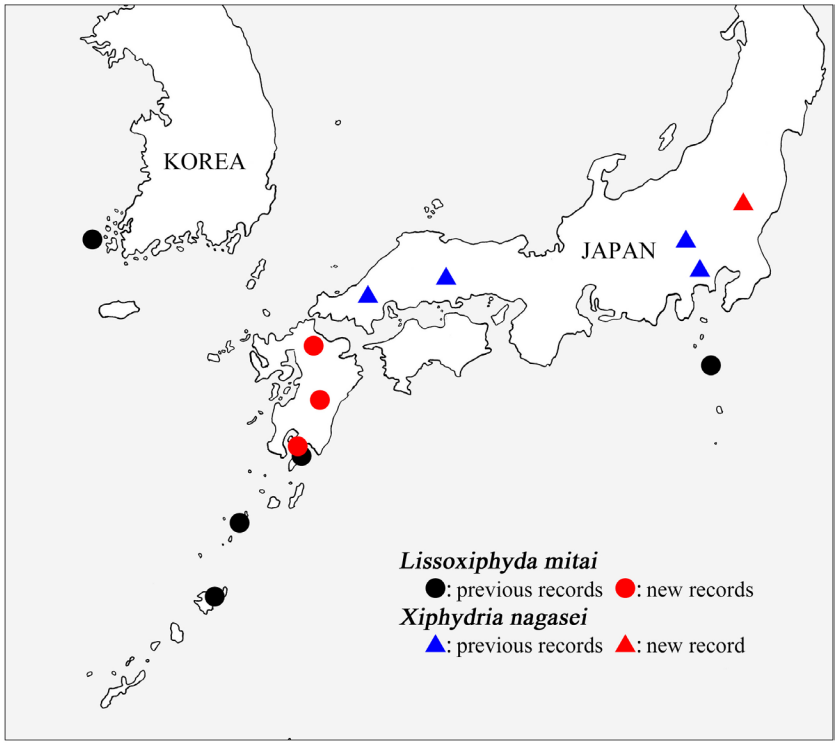

Fig. 1. Known distribution of *Lissoxiphyda mitai* and *Xiphydria nagasei* based on collection data (Shinohara, 2019, 2020, 2022; Shinohara *et al.*, 2024b; present work). A few overlapping plots are omitted.

Remarks. In Hokkaido, this species is known to occur in western central regions and the easternmost record until now was Kamishihoro (Hara and Shinohara, 2018; Shinohara *et al.*, 2020). The Akkeshi specimen represents the easternmost record in Hokkaido and the first distribution record from the eastern part of the island.

Xiphydria nagasei Shinohara, 2019

Specimen examined. **HONSHU: Ibaraki Pref.:** 1 ♂, Daigo-machi, Mt. Yamizo-san, about 970 m, 8. VI. 2024, Takao Konishi.

Distribution. Japan (Honshu).

Remarks. This is a rare species known only from the type series (six females and five males), all from lower mountains in central and western Honshu (Fig. 1, Kanagawa, Saitama, Okayama and Hiroshima prefectures; Shinohara, 2019). The Daigo specimen represents the first distribution record in Ibaraki Prefecture and the easternmost record for the species.

Xiphydria ogasawarai Matsumura, 1927

Specimen examined. **HOKKAIDO:** 1 ♀, Hamanaka-cho, Sanbanzawa, 28 m, 43°04′N 145°02′E, 22–24. VII. 2021, YPT, Kazushige Uemori.

Distribution. Japan (Hokkaido, Honshu, Sado Island, Shikoku).

Remarks. Shinohara (2019) listed 68 specimens of this species from Hokkaido, and as far as we know, these are all the specimens ever recorded from this island. Most of the specimens are from Sapporo area in western central Hokkaido and others are from southern and eastern central regions. The previous easternmost records were Kamishihoro and Obihiro (Shinohara, 2019) and Hamanaka is much further east than these localities.

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References

Hara, H. and A. Shinohara 2018. Taxonomic notes and new distribution and host plant records for sawflies and woodwasps (Hymenoptera, Symphyta) of Japan IV. Bulletin of the National Museum of Nature and Science, Series A 44: 93–113.

Shinohara, A. 2019. The *Xiphydria palaeanarctica* group from Japan (Hymenoptera, Xiphydriidae). Zootaxa 4608: 531–542.

Shinohara, A. 2020. *Lissoxiphyda mitai* n. sp. (Hymenoptera, Xiphydriidae): Discovery of a primarily Oceanian woodwasp genus in Japan. Japanese Journal of Systematic Entomology 26: 255–260.

Shinohara, A. 2022. New collection and host plant records for six Xiphydriidae (Hymenoptera) from Japan. Bulletin of the National Museum of Nature and Science, Series A 48: 85–88.

Shinohara, A., H. Hara and D. R. Smith 2020. The *Xiphydria annulitibia* group in northeastern Asia (Hymenoptera, Xiphydriidae). Zootaxa 4755: 375–389.

Shinohara, A., S. Maehara and E. Katayama 2024a. Xiphydriidae (Hymenoptera) of Tochigi Prefecture, Japan. Bulletin of the National Museum of Nature and Science, Series A 50: 171–177.

Shinohara, A., S.-W. Park and J.-O. Lim 2024b. Xiphydriidae (Hymenoptera) of Korea: New records and a checklist of species. Japanese Journal of Systematic Entomology 30: 9–11.

Shinohara, A. and K. Yamagishi 2024. Records of four Xiphydriidae (Hymenoptera) collected in traps in Japan, with notes on *Xiphydria melanoptera.* Bulletin of the National Museum of Nature and Science, Series A 50: 75–79.