

Species diversity and host range of *Torymus* species (Hymenoptera: Torymidae) in Japan

Kazunori Matsuo

Entomological Laboratory, Graduate School of Bioresource and Bioenvironmental Sciences, Kyushu University, Hakozaki 6-10-1, Higashi-ku, Fukuoka 812-8581, Japan

k_matsuo@agr.kyushu-u.ac.jp

Torymus species are known to be ectoparasitoids of the larvae of gall-inducing insects, and a few *Torymus* species are phytophagous as seed predators, inquilines or gall inducers. So far, 380 species have been identified in the world, and 14 of them have been recorded from Japan.

To clarify species diversity and the host range of Japanese *Torymus*, we collected galls of Cynipidae, Cecidomyiidae and Tephritidae from various places in Japan from 2007 to 2009.

During the course of the study, 34 species, including 19 new species, were collected from Japan. The host range of Japanese *Torymus* species is shown in Table 1. Monophagous species (that is, those reared from a single host species) were the most abundant in Japan.

Table 1. Host range of Japanese *Torymus* species

	<i>Species no. (%)</i>
Monophagous	23 (67)
Oligophagous	5 (15)
Polyphagous	2 (6)
Unkonwn	4 (12)

Monophagous: *Torymus* reared from a single host species.

Oligophagous: *Torymus* reared from host species belonging to one genus or family.

Polyphagous: *Torymus* reared from host species belonging to more than two families.

Unknown: Host information has not been provided yet.



Torymus species parasitizing *Dryocosmus kuriphilus* in Japan.

Top: Female of *T. beneficus* in lateral view.

Middle: Female of *T. geranii* in lateral view.

Bottom: Female of *T. sinensis* in lateral view.

(Photos by courtesy of Dr. Satoshi Kamitani)