



Two new species of the genus *Ficobracon* van Achterberg and Weiblen (Hymenoptera: Braconidae) from China, expanding its host range

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Abstract

Syconia of figs (Moraceae: *Ficus* spp.) harbour many wasp species, mostly belonging to several genera of chalcidoids (Hymenoptera: Chalcidoidea). In contrast, only two genera of Braconidae (Hymenoptera: Ichneumonoidea) with a few known species are found in syconia belonging to the subgenus *Urostigma*. The braconid fig wasps have an infrequent occurrence with low population density and are rarely encountered. Two new species, *Ficobracon rhiknosus* **sp. nov.** from figs of the subgenus *Urostigma*, and *F. codonatus* **sp. nov.** from figs of the subgenus *Sycidium* are described. Our previous experiments firmly support the suggestion that the *Ficobracon* species are parasitoids of non-pollinating chalcidoid fig wasps in the syconia.

Key words: *Ficobracon*, new species, *Ficus*, fig syconia

Introduction

A large number of wasps (Hymenoptera) (both species and individuals), are found in the syconia of figs (Moraceae: *Ficus* spp.). The vast majority belong to Chalcidoidea, including pollinating wasps (Agaonidae) and non-pollinating wasps (other chalcidoid families). Only two genera of Braconidae, the New World *Psenobolus* Reinahrd, 1885 (Doryctinae) and Old World *Ficobracon* van Achterberg and Weiblen, 2000 (Braconinae), have been reported from figs (Ramírez and Marsh 1996, van Achterberg and Marsh 2002, van Achterberg and Weiblen 2000).

According to the limited data available about their host and biology, these braconid fig wasps tend to be parasitoids of non-pollinating fig wasp species (Ramírez and Marsh 1996, van Achterberg and Marsh 2002, van Achterberg and Weiblen 2000, Wu *et al.* 2013). Their associated fig species mainly belong to the monoecious subgenus *Urostigma* (Ramírez and Marsh 1996, van Achterberg and Marsh 2002, van Achterberg and Weiblen 2000), and only one species of *Ficobracon* (described as a new species in present paper) is associated with *F. tinctoria gibbosa* belonging to the gynodioecious subgenus *Sycidium* (Wu *et al.* 2013).

The braconid fig wasps are rarely found within fig wasp communities, not only by the low number of species and genera, but also for these two *Ficobracon* species, by the low population density and occasional seasonal occurrence (unpublished data).

In 2000 the genus *Ficobracon* was established by van Achterberg and Weiblen based on *Ficobracon brusi* from *Ficus wassa* Roxb. in Papua New Guinea (van Achterberg and Weiblen 2000). Yang and Chen (2006) added a second species, *F. dazhulanensis*, from China (Chen and Yang 2006).

Here we describe two new species: *F. codatum* **sp. nov.** reared from *Ficus tinctoria gibbosa* (Blume) Corner in Hainan, China and *F. rhiknosus* **sp. nov.** reared from *Ficus microcarpa* L. and *F. benjamina* L. in Yunnan, China.