



## A new species from southwestern China of the holarctic genus *Odontothrips* (Thysanoptera: Thripidae)

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### Abstract

*Odontothrips yunnanensis* sp.n. is described from Yunnan in Southwestern China. Unlike most species of this Holarctic genus, the fore tarsi and fore tibiae do not have any teeth. The base of the sensorium on the sixth antennal segment is more than half as long as the total length of this sensorium, as is typical of species in the genera *Odontothrips* and *Odontothripiella*. In contrast, species of the Asian tropical genus *Megalurothrips* have the base of this sensorium less than 0.3 as long as the sensorium. Almost all species in these three genera breed only in flowers of Fabaceae. Males of this new species bear on tergum IX a pair of stout sigmoid processes.

**Key words:** *Odontothrips yunnanensis*, new species, China, Fabaceae flowers, *Megalurothrips*.

### Introduction

The characteristic keeled flowers in the plant family Fabaceae are recognisable worldwide, and are commonly assumed to be adapted for pollination by bees. However, in many parts of the Old World the flowers of Fabaceae are inhabited by large numbers of thrips of three particular genera, and this association often involves a high level of host specificity (Pitkin 1976). Across the Palearctic Region, most of the 30 described species in the Thysanoptera genus *Odontothrips* breed only in Fabaceae flowers (Pitkin, 1972a; zur Strassen, 2003), although the single endemic Nearctic member of this genus seems to have a different host association, and nothing is known about one species described from Africa. In Australia, most of the 18 species in the related genus *Odontothripiella* also breed in Fabaceae flowers, although at least two species breed only in the florets of one or more species of Poaceae (Pitkin, 1972b). In the Old World tropics, but particularly in Southeastern Asia, there is a third genus, *Megalurothrips*, in which species breed only in Fabaceae flowers (Palmer, 1987), including trees as well as herbs (Mound & Azidah, 2009). In China, nine species of *Odontothrips* are recorded, mainly from northern areas (Dang et al., 2010), whereas several species of *Megalurothrips* are listed from southern areas (Mound, 2010). The objective of the present paper is to describe a new species that has been found in Southwestern China in an area that is at the margins of the ranges of these two genera. Moreover, as discussed below, the generic position of this species is equivocal in that it exhibits characters states that place it intermediate between *Odontothrips* and *Megalurothrips*, but with the posterior margin of tergum IX in males more similar to species of the Australian genus *Odontothripiella*.

### Systematic relationships of *Odontothrips*

Species of *Megalurothrips*, *Odontothrips*, and *Odontothripiella* share the following character states: antennae 8-segmented, segment I with pair of dorso-apical setae (Fig. 11); antennal segment VI with base of external sensorium enlarged; head with ocellar setae pair I present; pronotum usually with two pairs of long posteroangular setae; metanotum with median setae arising at anterior margin (Fig. 12); terga without paired ctenidia laterally, VIII with