



## First record of an *Andricus* oak gallwasp from the Oriental Region: a new species from Taiwan (Hymenoptera: Cynipidae: Cynipini)

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### Abstract

A new species of oak gallwasp, *Andricus formosanus* is described from Taiwan which induces integral leaf galls on *Quercus dentata* (Section *Quercus sensu stricto*). The gall and adults of the new species most closely resembles *Andricus moriokae* Monzen, known from Japan. Data on the diagnosis, distribution and biology of the new species is given.

**Key words:** Cynipidae, oak gallwasp, *Andricus*, taxonomy, Oriental region, distribution, biology

### Introduction

Gallwasps (Hymenoptera; Cynipidae) are endophytophagous herbivores whose larvae all develop in galls induced on host plants, either as gall-inducers, or as inquiline inhabitants of galls induced by others (Liljeblad & Ronquist 1998; Csóka *et al.* 2005; Liljeblad *et al.* 2009; Péntzes *et al.* 2009); a few unusual species appear to be seed feeders as well (Buffington & Morita 2009). Of the approximately 1400 known gallwasp species, the greatest richness (around 1000 species in 25 genera worldwide) is found in the monophyletic tribe Cynipini, which induce galls on oaks (*Quercus* L.) and related Fagaceae (Csóka *et al.* 2005). The cynipid gallwasp fauna of the Eastern Palaearctic and Oriental region is poorly known: only 34 valid species are recognised from the Eastern Palaearctic, mostly from Japan and the Russian Far East (Abe *et al.* 2007), and only few oak gallwasp species have yet been described or mentioned as “cynipid gallwasp” for the Oriental region. Oaks can be found at 3800 m asl altitudes in the Himalaya (Jin *et al.* 1998) and cynipids reach their highest altitudes worldwide in this area (Weidner 1961). Mani (2000) lists nine oak-cynipid galls where only two of which are named: (1) *Neuroterus haasi* Kieffer (incorrectly named as *N. spicata* Kieff. in Mani (2000)) from *Q. spicata* Liebm. & Oerst. (Kieffer 1904), although this gallwasp is of dubious taxonomic status and the types must be revised; (2) *Plagiotrochus* (= *Callirhytis*) *semicarpifoliae* (Cameron) on *Q. semicarpifolia* Sm. (Bellido *et al.* 2000). Weidner (1961), along *P. semicarpifoliae*, recorded also *Biorhiza pallida* (Olivier) and an unidentified gall that he attributed to a gall-usurping inquiline *Synophrus olivieri* Kieffer, what is definitely an incorrect species identification. The record of *B. pallida* in the Himalaya is doubtful, and it is more probable that Weidner either found *B. nawai* (Ashmead), a species known from Japan and Far East of Russia (Kovalev 1965), or an undescribed species currently.