



## A taxonomic revision of *Monolepta pallidula* species group in Taiwan (Coleoptera: Chrysomelidae: Galerucinae)

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### Abstract

The species belonging to the *Monolepta pallidula* species group are revised. Two species are recognized as valid: *Monolepta sauteri* Chûjô and *M. kuroheri* Kimoto. Taiwanese populations of *Monolepta pallidula* (Baly) are a distinct species different from the true *M. pallidula*. Thus *Monolepta gracilipes* Chûjô, a junior synonym of *M. pallidula* from Taiwan, is an available name and should be reinstated. A new species, *Monolepta tsoui*, is described with delimitation of color variation from its allied species, *M. gracilipes*. A lectotype is designated for *Monolepta gracilipes* Chûjô. A key to the species of the species group is provided.

**Key words:** *Monolepta*, new species, color variation

### Introduction

The genus *Monolepta* Chevrolat, 1837 contains about 600 nominal species, which is more than in any other galerucine genus (Wagner 2007). Gressitt & Kimoto (1963) reported 46 species and one subspecies from China while Kimoto & Takizawa (1997) reported 28 species from Taiwan. African species have been revised taxonomically (Wagner 2000, 2001, 2002, 2003, 2005, 2006). Although many African species display color variation, genitalic features show a good diagnostic value.

Color variation also exists in Taiwanese species. *Monolepta pallidula* (Baly, 1874) was described originally from Japan. The whole body is yellowish brown and shows no color variation. However, the Taiwanese population displays the color variation of the yellowish-brown elytra having a black margin and was described as *Monolepta gracilipes* Chûjô (1938). The Taiwan Chrysomelid Research Team (TCRT) has been initiated in order to inventory all species of Chrysomelidae found in Taiwan. Over the course of investigating the chrysomelids of Taiwan, some populations were found with more color variations than in *Monolepta pallidula*. It indicates that this species and its allied species should be reviewed taxonomically.

Kimoto & Takizawa (1997) characterized the *Monolepta pallidula* species group by the absence of a discal stripe or band on the elytron, presence a faint postmedian transverse impression on the pronotum, the yellowish-brown head, and the large body (> 4.0 mm). In addition to *Monolepta pallidula*, *M. sauteri* Chûjô, 1935 and *M. kuroheri* Kimoto, 1966 are also included this species group. We found difficulty in separating *M. kuroheri* from *M. sauteri* if only based on diagnostic characters described by Kimoto (1966). The present study will delimit each species within the species group by describing its color variations and searching for more reliable diagnostic characters.

### Materials and methods

Taiwanese populations of *Monolepta pallidula* were compared with conspecific specimens from Japan, including 2♂♂: “Kamizaka-Siratake Tusima, Kyusyu Japan 25.VIII.1941 Col. M. CHUJO”; 1♂, 4♀♀: “Mt.