

The Merosporangiferous Fungi from Taiwan (IV): Two New Records of *Piptocephalis* (Piptocephalidaceae, Zoopagales)

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ABSTRACT: Two merosporangiferous fungi, *Piptocephalis curvata* and *Piptocephalis fimbriata* are reported for the first time from Taiwan. Descriptions, photographs and variations noted for their morphological characters are provided.

KEY WORDS: Merosporangiferous fungi, *Piptocephalis*, Taiwan, Zygomycetes.

INTRODUCTION

Species of the genus *Piptocephalis* (Piptocephalidaceae, Zoopagales, Zygomycetes) are obligate parasites mostly in the members of Mucorales. They are commonly found on dung, leaf litter or in soil. The genus is characterized by the production of dichotomously branching sporophores which usually form, at the branch apices, a sterile deciduous head cell bearing many cylindrical, uniseriate merosporangia containing a variable number of spores (Benjamin, 1959; Zycha, *et al.*, 1969; Kirk, 1978; Grafenhan, 1998; Ho, 2003). Of the twenty species of *Piptocephalis* described (Kirk *et al.*, 2001), only one species – *P. indica* has been described in Taiwan (Ho, 2003). This paper hereto describes two additional new records of *Piptocephalis* from Taiwan.

MATERIALS AND METHODS

Soil samples were collected from country roadsides and forests and brought to the laboratory in sterilized plastic bags. Two to three milligrams of soil particles were placed on corn meal agar plates. The plates were incubated at 24°C for nearly a week. Then, the plates were observed under a dissecting microscope. Sporophores of *Piptocephalis* were transferred along with its host, to another fresh corn meal agar plate and incubated at 24°C. After one week, the regenerated, mature sporangia of *Piptocephalis* were again transferred by touching mature sporangia with a sterilized needle to pre-marked spots onto a new corn meal agar plate. A day after inoculation of *Piptocephali* sporangia, the spores of mucoraceous host were also inoculated in the vicinity of the parasite. After 4-7 days, the host was found parasitized by the *Piptocephalis* species.

SEM

Pertinent materials were selected under a dissecting microscope and fixed for 1 hr with 2.5% glutaraldehyde in distilled water, and post-fixed for 1 hr with 1% osmium tetroxide in

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