

## Additions to pestalotioid taxa in Taiwan

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**Purpose:** We aimed to investigate the diversity of pestalotioid taxa in Taiwan.

**Methods:** Fungal samples were collected from Nantou and Taipei counties. We carried out polyphasic studies using single- and multi-gene (ITS, *tef*, *tub2*) phylogenies based on Maximum likelihood and Bayesian inference together with phenotypic data to assess the natural classification of freshly collected isolates.

**Results:** Based on these data, two novel species are proposed in *Pestalotiopsis* while three in *Pseudopestalotiopsis* and are introduced herein as *Pestalotiopsis formosana*, *P. neolitseae*, *Pseudopestalotiopsis hydeae*, *Ps. ixorae* and *Ps. taiwanensis*. *P. formosana* and *P. neolitseae*, which were isolated from dead grass and living leaves of *Neolitsea villosa* respectively, are morphologically similar to *Pestalotiopsis* with concolourous median cells, but vary from the phylogenetically related taxa in the size of conidiomata and conidia, the number of apical appendages and length of basal appendages. *Ps. hydeae* was obtained from dead leaves of *Diospyros* sp., while *Ps. ixorae* and *Ps. taiwanensis* were isolated from living leaves of *Ixora* sp. These three new species fit well with *Pseudopestalotiopsis* in having dark concolourous median cells with knobbed apical appendages, but differ from known taxa by the size of conidiomata and conidia, the number of apical appendages and length of basal appendages. The outcomes of pathogenicity tests discovered that *P. neolitseae*, *Ps. ixorae* and *Ps. taiwanensis* are capable of causing leaf spots on *N. villosa* and *Ixora* sp. respectively.

**Conclusions:** Our study increases the base of evidence concerning the diversity of pestalotioid species in Taiwan.

Keywords: New species, *Pestalotiopsis*, Phylogeny, Phytopathogenic fungi, *Pseudopestalotiopsis*