



## *Spiradiclis danxiashanensis* (Rubiaceae), a new species from South China<sup>#</sup>

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### Abstract

*Spiradiclis danxiashanensis*, a new species segregated from *S. guangdongensis*, is described and illustrated. The morphological description of *S. guangdongensis* is emended accordingly. Both species are Chinese endemics and a conservation assessment to each of them is provided using IUCN guidelines.

**Key words:** IUCN, new taxon, nomenclature, taxonomy

### Introduction

The genus *Spiradiclis* Blume (1826: 975) comprises an estimated 40 species of perennial herbs and subshrubs (up to 1.5 m tall). *Spiradiclis* species are common in subtropical moist forests of karst landform in Southwest China and North Vietnam (Lo 1999, Wang 2002, Chen & Taylor 2011). The genus is characterized by having cymose or paniculiform inflorescences with slender and dichasial or scorpioid axes and a few large or many small flowers; urceolate-tubular, salverform or infundibuliform corolla; bisexual, usually distylous, 5-merous flowers, with lobes valvate in bud; and globose or ovoid, rarely compressed, dehiscent capsules, with four twisted or untwisted papery to coriaceous valves. *Spiradiclis* was positioned in the tribe Ophiorrhizeae by Bremekamp (1952: 22), Verdcourt (1958: 242), and Robbrecht (1988: 160) based on morphological evidence, and supported by Bremer & Manen (2000) and Rydin *et al.* (2008, 2009) on the basis of molecular phylogenetic analyses.

Our examination of herbarium specimens and field observation showed that two or more species having similar habit but distinct morphology were sometimes collectively ascribed to one taxon in the previous taxonomic treatment because of much inadequate specimen at that time (Lo 1987, Lo 1999). Under the circumstance, for example, Lo (1987: 299) described *Spiradiclis guangdongensis* based on two specimen from Mt Nankunshan and two from Mt Danxiashan. Our comprehensive herbarium and field observations indicate that the collections from the two above mentioned localities are not conspecific. The population of *Spiradiclis* from Mt Danxiashan is here described as a new species, *S. danxiashanensis*, and the description of *S. guangdongensis* is here emended.

### Material and Methods

Pollen and leaf material for micro-morphological observation were sampled from our recent collections. Pollen grains were rinsed in 70% ethanol and shaken three times simultaneously with ultrasonic wave so as to clean the tectate surface. Leaf surface was washed three times with 95% ethanol. Then they were mounted on copper stubs, coated with gold, and observed with a scanning electron microscope (SEM). Palynological terminology follows Punt *et al.* (2007).