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## *Bulbophyllum bidoupense* and *Schoenorchis hangianae*—new species of orchids (Orchidaceae) from southern Vietnam

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## Abstract

Bulbophyllum bidoupense (sect. Brachystachyae) and Schoenorchis hangianae (sect. Pumila) are described and illustrated as species new for science. Both species are local endemics of the Bidoup mountain system belonging to the South Annamese floristic province of the Indochinese floristic region within Lam Dong and Khanh Hoa provinces of southern Vietnam. Schoenorchis hangianae and allied S. scolopendria are rather isolated species recognized among their congeners by plagio-tropic creeping plant habit.

Key words: Orchidaceae, plant taxonomy, plant diversity, nature protection

## Introduction

The orchid flora of Vietnam is, undoubtedly, one of the richest regional floras in mainland Asia. Numerous field explorations during the past three decades greatly expanded our knowledge and confirm an outstanding orchid diversity within this region. Successive exploratory assessments and reviews of existing literature show the direct relationship between the consistent increase in the number of species and genera encountered and the intensity of scientific investigations. Published landmark inventories show the steadily increasing number of known orchid species in Vietnam from 411 species recorded in year 1934 (Gagnepain & Guillaumin 1934), to 718 species in 1992–1994 (Seidenfaden 1992, Averyanov 1994), 897 species in 2003–2005 (Averyanov & Averyanova 2003, Nguyen Tien Ban et al. 2005), 1005 species in 2009 (Averyanov et al. 2009), and 1090 species figured in last assessment undertaken in year 2011 (Averyanov 2011). Since this latter inventory, 45 species and 5 genera have been newly discovered and documented for the flora of Vietnam (Averyanov 2012a, 2012b, 2013, Averyanov et al. 2012a, b, 2013, Schuiteman et al. 2013, Choudhary et al. 2013, Kumar et al. 2014). When these new data are included, the known orchid flora of Vietnam includes at least 1135 documented species from 165 genera. Despite this exceptional diversity and focused work, the comprehensive inventory of the orchid flora of Vietnam remains far from complete, and each new botanical exploration, particularly in remote mountainous areas, reveals new discoveries. Two orchid species new for science were recently discovered during botanical field investigations conducted by botanists of the Tay Nguyen Institute for Scientific Research, Vietnam Academy of Science and Technology in the northeastern part of Tay Nguyen Plateau called referred to as the Central Highlands of southern Vietnam. Both species are described, illustrated and briefly discussed below.

## **Material and Methods**

Specimens of the new species suitable for description were collected in the field in during 2012–2014. Some previously gathered herbarium collections also provided additional materials and were designated as paratypes. Fresh flowers and inflorescences from living plants were fixed and stored in 70% ethanol. Measurements of the floral parts for the