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A new species of *Pilea* (Urticaceae) from the Talamanca Mountains, Costa Rica

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Abstract

A new species of *Pilea* from Costa Rica is described and illustrated: *Pilea matama* which most closely resembles the widespread species *Pilea imparifolia*. The affinities of this species are discussed and its position within Weddell's subdivisions of the genus indicated.

Keywords: Urticaceae, Pilea, Talamanca Mountains, Costa Rica, La Amistad National Park

Introduction

Pilea Lindley (1821: tab. 4) is the largest genus in the Urticaceae comprising ca 715 species (Monro, 2004) worldwide and is distributed throughout the tropics, subtropics and temperate regions (with the exception of Australia, New Zealand and Europe). Southeast Asia is the centre of morphological and phylogenetic diversity for *Pilea* whilst the Greater Antilles and Andean countries are the centres of species diversity (Monro, 2006).

Pilea is easily distinguished from other Neotropical Urticaceae by the combination of opposite leaves and a single, ligulate, intrapetiolar stipule in each leaf axil. The majority of species are succulent herbs, epiphytes or small shrubs growing in heavy shade at altitudes between 1000 and 3000 m above sea-level. Within Mesoamerica 61 species are recognised (Monro, in prep.) and of these 33 are known from Costa Rica. To date the principle contributions to the taxonomy of this genus in Costa Rica are Standley's (1937) *Flora of Costa Rica* treatment, Burger's (1977) *Flora Costaricensis* treatment and this author's (2001) synopsis of the genus for Mesoamerica.

During a fieldtrip to the Matama ridge (Fila Matama) of the Talamanca Mountains and Costa Rican sector of La Amistad Binational Park several collections of an unknown *Pilea* species were made, which is here described as a new species. Its affinities are discussed and position within Weddell's (1869) subdivision of the genus indicated, which although not phylogenetic, is based on the most comprehensive world-wide treatment of the genus.

Materials and methods

Herbarium specimens were compared with the collections at INB and BM, together with a loan of indeterminate MO material at BM. A morphological species concept developed during the course of previous taxonomic research on Pilea (Monro, 2001 & 2006) was employed to delimit and compare taxa. Material was examined under a Willd M3C binocular microscope and Planapo lens at X64 to X400 magnifications.

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