Stylidium javanicum (Stylidiaceae), a new triggerplant record for the Philippines

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Abstract

Stylidium javanicum, a very poorly known species formerly only recorded from Java, Sumba, and New Guinea, is here reported as a new record for the Philippines, where it was found in grasslands in Antique Province of Panay Island. It is morphologically similar to Stylidium alsinoides, the only other Stylidium species known for the country, but can be distinguished from it by larger flowers, smaller fruits, and more narrowly acute petal apices.

Key words: Antique Province, flora, Panay, subg. Andersonia, sect. Alsinoida, taxonomy

Introduction

Stylidiaceae are a small, predominantly Australasian and Southeast Asian plant family in the Asterales. In its broadest delimitation, the family includes Donatia Forster & Forster (1776: 9), but this genus is often segregated and recognized as the sole member of Donatiaceae (Gustafsson & Bremer 1995). Stylidiaceae sensu stricto are in some taxonomic treatments subdivided into five genera: Forstera Linnaeus ex Forster (1780: 184), Levenhookia Brown (1810: 572), Oreostylidium Berggren (1878: 1), Phyllachne Forster & Forster (1776: 115), and Stylidium Swartz in Willdenow (1805: 146). However, because Oreostylidium is nested within an otherwise monophyletic Stylidium and Phyllachne is similarly placed within Forstera, a classification into three genera has likewise been proposed (Wagstaff & Wege 2002).

The majority of the 220–300 species of Stylidiaceae are placed in Stylidium (Wagstaff & Wege 2002). This genus is characterized by a unique pollination system. The flowers bear stamens that are adnate to the style, forming a very sensitive ‘column’ that moves swiftly to strike a potential pollinator when triggered (Bean 2000). The majority of Stylidium species occur in sand heaths (Carlquist 1969), and often have glandular hairs that are commonly associated with various inflorescence and flower parts and have a role in trapping small insects (Darnowski 2006).

Most Stylidium species are endemic to Australia, but nine are found in other countries (Bean 2000). One species, S. alsinoides Brown (1810: 572), has thus far been reported for the Philippines (Merrill 1912a,b, 1923, Van Slooten 1954). However, in 2011, as part of the Co’s Digital Flora of the Philippines project (Pelser et al. 2011 onwards), Pelser and Barcelona photographed a Stylidium specimen in Antique Province on the island of Panay (Fig. 1) that looked morphologically different from S. alsinoides. They collected specimens of this species (Barcelona 3920 with Pelser (CANU, PNH)) at the same locality in 2014. This prompted an investigation into the taxonomic identity of this plant on which we report here.

Taxonomic comparison

In his taxonomic revision of Stylidium subg. Andersonia (Brown ex Don 1834: 721) Mildbraed (1908: 34), Bean (2000) recognized three subgenera of Stylidium present in northeastern Australia and Southeast Asia. Our specimens from Panay (Barcelona 3920) represent S. subg. Andersonia, which is composed of mostly annual species and is characterized by sessile or nearly sessile and linear hypanthia and capsules that are 8–20 times longer than wide. The corolla has a labellum without basal appendages and a calyx composed of sepals that exhibit some degree of connation...
Acknowledgements

We thank Tony Bean for confirming that our photos of *S. javanicum* from the Philippines indeed represent that species. Curators of BM and MEL provided photos of *Stylidium* type specimens. Director Mundita S. Lim, Josefina de Leon, and Cecile G. Francisco of the Biodiversity Management Bureau (BMB), Anthony E. Evangelio and Merlinda Sargento (CENRO, San Jose, Antique), and Antonio Manila (DENR-NCR) helped facilitate the issuance of collecting, transport, and export permits. Irma Grasparil, Milmar Regalachuelo and guides from Brgy. Aningalan assisted in specimen collection. We thank San Remigio Mayor Glenn V. Cabigunda and Aningalan Brgy. Captain Rosito Alejo for their support of the CDFP project and The Antique Outdoors (TAO) for providing accommodation while in the field. Two anonymous reviewers provided excellent feedback on an earlier version of this manuscript.

References