



A distinctive addition to the tree flora of Papua New Guinea: *Helicia woxvoldiana* sp. nov. (Proteaceae), a large-flowered myrmecophyte from the upper Sepik

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Abstract

Helicia woxvoldiana (Proteaceae) is described from the Sepik River basin in Papua New Guinea, from classical localities on the Kaiserin-Augusta-Fluss itinerary of 1912–13. The new species is a canopy myrmecophyte with the largest flowers in Papuan *Helicia*.

Key words: classical localities, Kaiserin-Augusta-Fluss Expedition

Introduction

Helicia Loureiro (1790: 83) is a widely distributed genus (ca. 110 species) ranging from southern India in the west to the Bismarck Archipelago and Australia in the east (Foreman 1995, 1998, Sleumer 1955a, b). With a current conspectus of 52 species, New Guinea and its satellite islands are a generic center of diversity.

An exceptionally large-flowered and myrmecophytic *Helicia* was recently discovered during a multi-year schedule of Sepik exploration patterned after the Kaiserin-Augusta-Fluss Expedition of 1912–13 (Fig. 1). Consisting of a series of linked operations in 1989, 1990, 1994, 1995, 2001, 2004, 2005, 2007, 2009, and 2010 (lead paper in Takeuchi & Golman 2002), the collective itinerary has yielded an estimated 9,000 specimen numbers in backlog. Ongoing study of unprocessed collections has thus far resulted in publication of 21 taxonomic records, of which *Helicia woxvoldiana* is the latest to be formally presented.

Methods

Unless indicated otherwise, the taxonomic descriptions refer to attributes on dried specimens. Characters determined in situ from living plants are reported separately as ‘field characters’.

The cited deposition of duplicates will be effected after publication. Silica-dried leaf samples have been inserted with the A, CANB, and L duplicates (for *Takeuchi, Ama & Gambia 25031*), and with the A, L, and LAE duplicates (for *Takeuchi, Ama & Gambia 25747*).

Description

Helicia woxvoldiana W.N.Takeuchi, sp. nov. (Figs. 2–5)

Inter speciebus congeneribus Papuasiae floribus multo majoribus usque ad 39–46 mm longis statim distinguitur.

Type:—PAPUA NEW GUINEA. West Sepik Province: upper Sepik River basin, hill forest with scattered regrowth, 4°39.184'S, 141°43.456'E, 840 m, 5 December 2009, *Takeuchi, Ama & Gambia 25095* (holotype A!; isotypes BO!, CANB!, K!, L!, LAE!, US!).



FIGURE 5. *Helicia woxvoldiana* W.N.Takeuchi. Anthetic flowers from the attractive and fragrant inflorescence. Disk glands are clearly connate. From Takeuchi, *Ama & Gambia* 25095.

Notwithstanding its late discovery, *H. woxvoldiana* is a common species and is not presently susceptible to any conservation threat(s). Extensive sapling recruitment was evident in all the areas of observed occurrence, particularly in the regrowth resulting from natural agencies (e.g., windthrows, landslides) or from anthropogenic activities. The species is almost certainly more widespread than presently recognized. Extensions in geographic range can be expected as future investigators enter other upland environments within the Sepik basin.

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