



Impatiens elianae (Balsaminaceae), a new species from central Madagascar, with notes on the taxonomic relationship of *I. lyallii* and *I. trichoceras*

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Abstract

The new species *Impatiens elianae* is described from cultivated plants said to have been collected in central Madagascar. It is part of the *I. lyallii* complex and closely related to *I. trichoceras* from eastern central Madagascar, but differs in having a glossy lamina with silvery part in the centre, linear extrafloral nectaries, 2-flowered inflorescences, relatively long hairs (0.8–1.2 mm) on the sepals, larger size and shape of the broad ovate crest at the dorsal side of the dorsal petal, shorter spur, and (3–) 5 rows of pink hairs on the ovary and fruit. *Impatiens trichoceras* is taken from the synonymy of *Impatiens lyallii* and is considered as a species of its own.

Key words: endemism, *Impatiens elianae*, taxonomy

Introduction

Perrier de la Bâthie (1934, 1948) and Humbert (1956) reported 105 species of *Impatiens* Linnaeus (1753: 927) from Madagascar. However, while studying herbarium collections from G, MO, NEU, P and TAN numerous previously undescribed taxa were detected, raising the total number of species to more than 260, including many narrow endemics. During the revision of the Balsaminaceae of Madagascar (Fischer & Rahelivololona 2000, 2004, 2007a, b, Fischer *et al.* 2003) it became apparent that we are far from a satisfactory knowledge of the diversity of *Impatiens* on the island. *Impatiens lyallii* Baker (1883: 113) was described from central Madagascar and considered by Perrier de la Bâthie (1934) to be one of the more widespread species. In the same publication Baker described *I. trichoceras* (Baker 1883: 116) which Perrier de la Bâthie (1934) considered to be a synonym of *I. lyallii*. Examination of the type specimens and living plants in the field, however, revealed that both taxa are clearly distinct, and that the *Impatiens lyallii*-complex probably consists of at least four to five different species. In this paper we describe a distinct new species from the *Impatiens lyallii*-complex that is at present only known from cultivation, and reinstate the name *I. trichoceras*.

Materials and Methods

The study is based on the investigation of living plants in the collection of the Botanical Gardens Bonn as well as closely related species in the wild and dried specimens from the following herbaria: BR, G, K, MO, NEU, P and TAN (acronyms after Holmgren *et al.* 1990). A short history of exploration of *Impatiens* in Madagascar as well as details on terminology and measurements were provided by Fischer & Rahelivololona (2002).

Impatiens elianae S.Abramczyk & Eb.Fisch., sp. nov. (Figs. 1, 2)

Impatiens trichocerati affinis sed caule sparse-pubescenti, lamina foliorum in centro argenteo-viridi, nectariis extrafloralibus linearibus, inflorescentiis bifloribus, sepalis lateralibus longipilosis, petalo dorsali cum crista valde majore, calcare brevioris et serie pilis roseis ovarii et capsulae valde differt.