



## New taxa of *Impatiens* (Balsaminaceae) from Madagascar VI. *Impatiens otto-eleonorae*, a new species from Masoala Peninsula, and notes on the taxonomic relationships of *Impatiens firmula* and *I. hildebrandtii*

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### Abstract

The new species *Impatiens otto-eleonorae* Eb.Fischer & Rahelivolona from Masoala Peninsula is described. It is related to *Impatiens hildebrandtii* Baill. from Eastern Central Madagascar, but differs in the larger habit and flowers. The types of *Impatiens firmula* Baker and *I. hildebrandtii* are reinvestigated. Both taxa, previously considered to be identical, represent different species, and *Impatiens hildebrandtii* is reinstated here.

**Key words:** *Impatiens otto-eleonorae* Eb.Fischer & Rahelivololona, *Impatiens firmula* Baker, *Impatiens hildebrandtii* Baill., endemism, Madagascar

### Introduction

Madagascar is one of the “hottest hotspots of biodiversity” (Ganzhorn *et al.* 2001) with a high percentage of endemism threatened by extinction. Numerous new plant species from Madagascar are being described every year. During the revision of Balsaminaceae (Fischer & Rahelivololona 2000, 2004, 2007a, b, Fischer *et al.* 2003) it has become apparent that the general knowledge of the diversity of the genus *Impatiens* Linnaeus (1753: 937) in Madagascar is far from being satisfactory.

Perrier de la Bâthie (1934, 1948) and Humbert (1956) reported 105 species of *Impatiens* from Madagascar. However, while studying collections from P, TAN, MO, NEU and G numerous previously undescribed taxa were detected, raising the total number of species to more than 260. In this paper we describe a peculiar species from the Masoala Peninsula, which harbours 52 species of *Impatiens*, Linnaeus mostly restricted to lowland and montane rainforest. Only Mt. Marojejy has a similarly high number with 47 species recorded. The present study is based on the investigation of living and dried specimens. A short history of the exploration of *Impatiens* in Madagascar as well as details on terminology and measurements were provided by Fischer & Rahelivololona (2002).

### Taxonomy

#### *Impatiens otto-eleonorae* Eb.Fischer & Rahelivololona, *sp. nov.* (Fig. 1, 2)

*Impatiens hildebrandtii* affinis sed habitu valde majore, foliis majoribus margine appendicis distinctis, inflorescentiis cum 2–5 floribus et floribus valde majoribus differt.

**Type:**—MADAGASCAR. Masoala National Park, E slope of Ambohitsitondroinan’Mahalevona, ESE of village of Mahalevona, 15°26'13"S 049°57'26"E, 23 February 2003, alt. 1140 m, P.P.Lowry II, G.E.Schatz & J.R.Be 6133 (holotype TAN!; isotypes P!, MO!).