

A new epiphytic species of *Impatiens* (Balsaminaceae) from the Comoro Islands

Eberhard FISCHER

Institut für Biologie, Universität Koblenz-Landau, Universitätsstr. 1, D-56070 Koblenz (Germany)
efischer@uni-koblenz.de

Marie Elisette RAHELIVOLOLONA

Parc botanique et zoologique de Tsimbazaza, BP 4096, Antananarivo (Madagascar)
prota.madagascar@dts.mg

KEY WORDS
Balsaminaceae,
Impatiens,
Comoro Islands.

ABSTRACT

The new species *Impatiens wibkeae* from the Comoro Islands is described and illustrated. It differs from *I. auricoma* Baill. in its epiphytic habit, red lateral sepals and generally larger flowers.

MOTS CLÉS
Balsaminaceae,
Impatiens,
Comores.

RÉSUMÉ

Une nouvelle espèce épiphyte d'Impatiens (Balsaminaceae) des Comores.

Une espèce nouvelle d'*Impatiens* des Comores (*I. wibkeae*) est décrite et illustrée. Elle diffère d'*I. auricoma* Baill. par le port épiphytique, les sépales latéraux rouges et les fleurs généralement plus grandes.

INTRODUCTION

The Comoro Islands, in contrast to Madagascar (FISCHER & RAHELIVOLOLONA 2002), harbour only a few species of *Impatiens*. Up to now, two species are known, i.e. *Impatiens auricoma* Baill. which is also widely distributed in cultivation and *I. comorensis* Baker (= *I. macradenia* Baill.), a very distinctive species whose lower sepal bears two filiform spurs 30 mm in length. Despite recent regional inventories, the latter species has not been collected since more than 50 years ago and might even be extinct. In submontane

rainforest on Moheli, an epiphytic *Impatiens* was collected by Jean-Noël LABAT, which was first considered to represent *I. auricoma*. The new material, however, differs from this taxon in many respects and represents a new species, which is described below. It is undoubtedly related to *I. auricoma* and is part of a group of taxa that are restricted to Madagascar and the Comoros, characterized by having two short spurs on lower sepal. In Madagascar, *I. bisaccata* Warb. from Montagne d'Ambre and *I. tuberosa* H. Perrier from Montagne des Français near Antsiranana belong to this group. The main differences

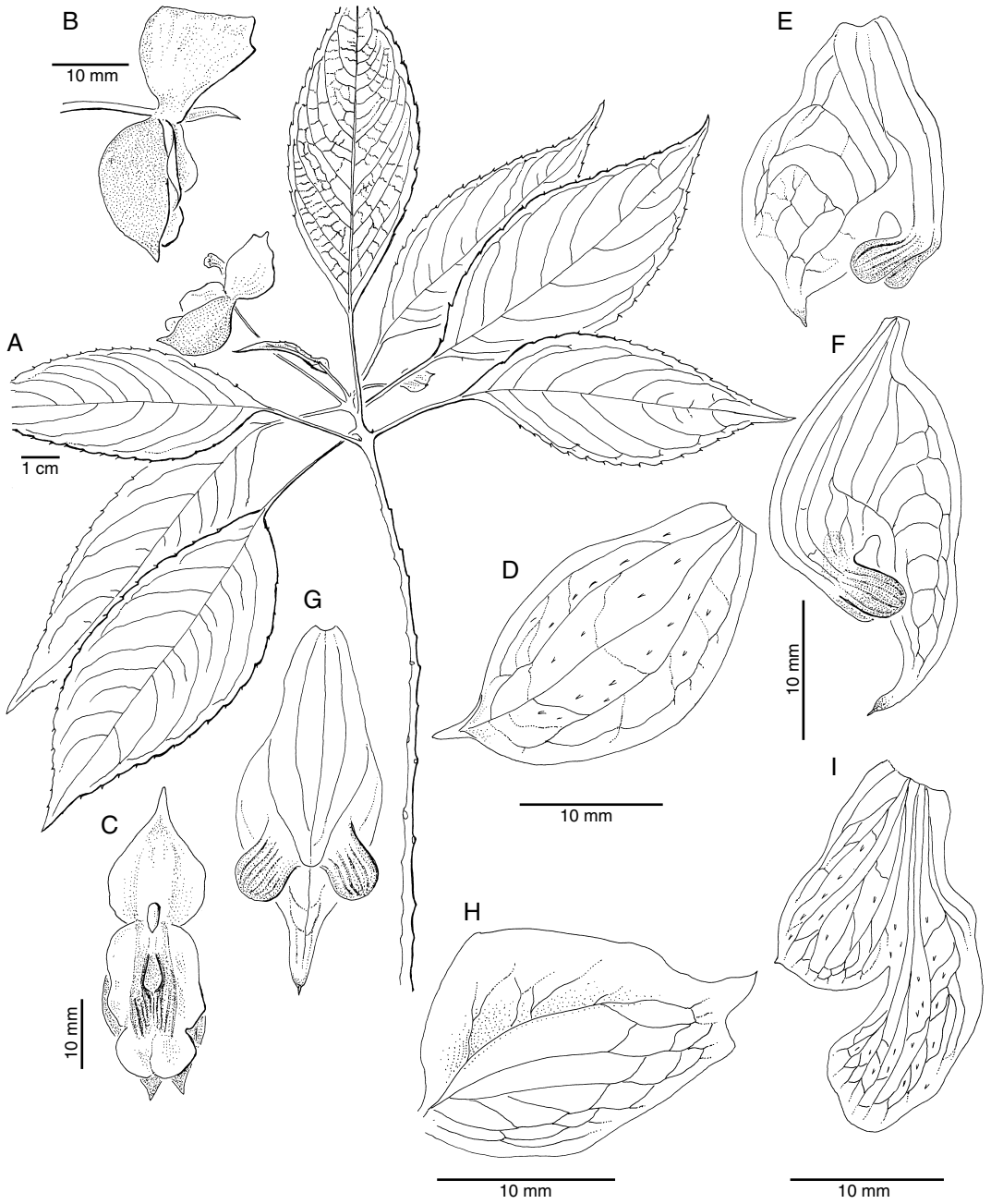


FIG. 1. — *Impatiens wibkeae* Eb. Fisch. & Rahelivololona: **A**, habit; **B**, flower, lateral view; **C**, flower frontal view; **D**, lateral sepal; **E-G**, lower sepal and spur; **H**, dorsal petal; **I**, lateral united petals. *Labat et al.* 3215 (P).

between *I. auricomma* and the new species are listed in Table 1.

The study is based on herbarium material from P (acronyms according to HOLMGREN *et al.* 1990). The terminology used for measuring floral parts and in the descriptions follows GREY-WILSON (1980) and FISCHER & RAHELIVOLOLONA (2002). Thus the arrangement of floral parts is described after resupination.

***Impatiens wibkeae* Eb. Fisch. & Rahelivololona, sp. nov.**

Impatiens auricomae affinis sed habitu epiphytico, sepalis lateralibus rubris et majoribus, sepalo inferiore majori, calcare brevior et petalis lateralibus majoribus differt.

TYPUS. — Labat, Yahaya, Darouche, Djoubieri & Mindhiri 3215, Comores, Moheli, Miringoni, Vondrouvou, Chalet Saint-Antoine, 12°17'17"S, 43°39'50"E, 660 m, forêt dense humide de crête, riche en lichen à *Cyathea* et *Cynometra*, sol forestier noir sur basalte, 25 Nov. 1999 (holo-, P; iso-, herbarium du Centre national de Documentation et de Recherche scientifique de Moroni, G, K, MO).

Epiphytic herb up to 60 cm tall. Stem succulent. Leaves dark green, petiole 26-35 mm long, with 1-2 pairs of extrafloral nectaries in apical part, lamina ovate-lanceolate, acuminate, 85-112 × 27-44 mm, margin with 16-18 pairs of fimbriae. Inflorescence axillary, bracts 2 × 0.5 mm, pedicel 42-45 mm long, reddish. Flower with yellow dorsal petal, bearing a long red-orange crest, lateral sepals red, lower sepal yellow with reddish venation, spur reddish. Lateral sepals broadly ovate, acuminate, 30 × 15 mm. Lower sepal navicular, 25-28 × 10 mm, with 2 globose, obtuse sacculate spurs, 4-5 × 2-3 mm, with narrow longitudinal ridges. Dorsal petal cucullate, 20 × 15 mm, dorsal crest with spur-like apicule. Lateral united petals 24 mm long, upper

TABLE 1. — Distinction between *Impatiens wibkeae* and *I. auricomma*.

	<i>Impatiens wibkeae</i>	<i>Impatiens auricomma</i>
Habitat	epiphytic	terrestrial
Flower	yellow with red lateral sepals	yellow throughout
Lateral sepals	30 × 15 mm	20 × 10 mm
Lower sepal	25-28 × 10 mm	14 × 0.6 mm
Spurs	4-5 × 2-3 mm	6 × 1.5 mm
Dorsal petal	20 × 15 mm	9 × 5 mm
Lateral petals	24 mm long	15 mm long
Upper petal	15 × 8-9 mm	10 × 9 mm
Lower petal	9 × 6-7 mm	6 × 5 mm

petal 15 × 8-9 mm, lower petal 9 × 6-7 mm. Anthers 15 mm long. Ovary 14 mm long. Fruit c. 20-22 mm long, furrowed. — Fig. 1.

HABITAT. — Submontane rainforest.

DISTRIBUTION. — Comoro Islands, only known from the type locality on Moheli.

ETYMOLOGY. — Dedicated to Wibke BRIESE.

Acknowledgements

First, we would like to thank the director of the Herbarium, Muséum national d'Histoire naturelle (P), who kindly sent specimens on loan to the first author. Special thanks go to Jean-Noël LABAT (Paris) for kindly sending *Impatiens* from the Comoro Islands for identification.

REFERENCES

- FISCHER E. & RAHELIVOLOLONA M.E. 2002. — New taxa of *Impatiens* (Balsaminaceae) from Madagascar I. *Adansonia* sér. 3, 24 (2): 271-294.
- GREY-WILSON C. 1980. — *Impatiens of Africa*. Balkema, Rotterdam.
- HOLMGREN P.K., HOLMGREN N.H. & BARNETT L.C. 1990. — *Index Herbariorum*. Part I: *The Herbaria of the World*. New York Botanical Garden, New York.

Submitted on 30 May 2003;
accepted on 11 February 2004.