

A New Name in *Ruellia* L. (Acanthaceae) for Madagascar

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A new name in *Ruellia* L. (Acanthaceae) for Madagascar

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Abstract

CALLMANDER, M. W., E. A. TRIPP & P. B. PHILLIPSON (2014). A new name in *Ruellia* L. (Acanthaceae) for Madagascar. *Candollea* 69: 81-83. In English, English and French abstracts.

Recent molecular phylogenetic studies showed that the endemic Malagasy *Eusiphon* Benoist is nested within *Ruellia* L. (Acanthaceae). The authors here propose a new name to replace an illegitimate later homonym for *Eusiphon longissimum* Benoist: *Ruellia quartziticola* Callm., E. Tripp & Phillipson. This striking species is rare in the wild and endemic to the quartzite veins of the Highlands of Madagascar. Following IUCN Red List Categories and Criteria, *Ruellia quartziticola* is considered to be "Critically Endangered".

Key-words

ACANTHACEAE – *Eusiphon* – *Ruellia* – quartzite – IUCN Red List

Résumé

CALLMANDER, M. W., E. A. TRIPP & P. B. PHILLIPSON (2014). Un nom nouveau pour un *Ruellia* L. (Acanthaceae) de Madagascar. *Candollea* 69: 81-83. En Anglais, résumés anglais et français.

Des études récentes de phylogénie moléculaire ont montré que le genre endémique malgache *Eusiphon* Benoist est inclus dans *Ruellia* L. (Acanthaceae). Les auteurs proposent ici un nouveau nom pour remplacer un homonyme illégitime postérieur pour *Eusiphon longissimum* Benoist: *Ruellia quartziticola* Callm., E. Tripp & Phillipson. Cette remarquable espèce est rare à l'état sauvage et endémique des veines de quartzite des Hauts Plateaux de Madagascar. D'après les Catégories et les Critères de la Liste Rouge de l'UICN, *Ruellia quartziticola* est évaluée comme «En Danger Critique d'Extinction».

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Introduction

The large family *Acanthaceae* has recently been the subject of many molecular phylogenetic studies (MCDADE & al., 2000; MANKTELOW & al., 2001; MCDADE & al., 2005; MCDADE & al., 2008). These studies have demonstrated the existence of several major, well-supported lineages and have provided extensive discussion of the last comprehensive taxonomic treatment of the family (SCOTLAND & VOLLESEN, 2000). One of these lineages, the large pantropical *Ruellieae* (ca. 1200 spp.), has been the subject of expanded investigations by one of us (EAT) and colleagues (TRIPP, 2007; TRIPP & MANOS, 2008; TRIPP & al., 2009; TRIPP, 2010; TRIPP & FATIMAH, 2012; TRIPP & MCDADE, 2012; TRIPP & al., 2013a; TRIPP & al. 2013b). In particular, TRIPP & al. (2013a; Table 1 therein) explored phylogenetic relationships among the 48 genera previously treated in this tribe by SCOTLAND & VOLLESEN (2000), and provided them with a revised classification. This comprehensive study included all five genera of the tribe endemic to Madagascar: *Benoicanthus* Heine & A. Raynal (1 sp.), *Eusiphon* Benoist (3 spp.), *Ionacanthus* Benoist (1 sp.), *Pseudoruellia* Benoist (1 sp.), and *Zygoruellia* Baill. (1 sp.). This last genus was excluded from *Ruellieae* and placed provisionally in *Whitfieldieae*; its precise taxonomic affinities remain to be investigated. The other four genera were nested with strong support in larger genera (TRIPP & al., 2013a), and these phylogenetic data in combination with morphological features resulted in their being treated as synonyms. *Ionacanthus* was merged with the African genus *Mellera* S. Moore whereas *Benoicanthus*, *Eusiphon* and *Pseudoruellia* were merged with the very large and widespread genus *Ruellia* L. New species combinations were provided as needed.

In the course of updating the *Acanthaceae* treatment for the “Catalogue of the Vascular Plants of Madagascar” (MADAGASCAR CATALOGUE, 2014) to reflect the changes outlined above, we noticed that a new combination proposed by TRIPP & al. (2013a) for *Eusiphon longissimum* Benoist in *Ruellia* was already occupied by the earlier homonym *Ruellia longissima* D. N. Gibson. In this note, we therefore propose a new name for this species: *R. quartzitica* Callm., E. Tripp & Phillipson. Preliminary conservation threat assessments for this species following IUCN Red List Categories and Criteria (IUCN, 2012) and a distribution map are additionally presented.

Taxonomy

Ruellia quartzitica Callm., E. Tripp & Phillipson, **nom. nov.**

- ≡ *Eusiphon longissimum* Benoist in Not. Syst. (Paris) 15: 6. 1955.
- ≡ *Ruellia longissima* (Benoist) E. Tripp in Int. J. Pl. Sci. 74: 122. 2013, *nom. illeg.* [non *Ruellia longissima* D. N. Gibson in Fieldiana, Bot. 34: 79. 1972].

Typus: MADAGASCAR. Prov. Fianarantsoa: entre la Mania et l’Ivato, II.1919, fl., *Perrier de la Bâthie* 12374 (holo-: P [P00091305]!; iso-: P [P00091306, P00091307]!).

Observations. – *Ruellia quartzitica* is a striking species with its exceptionally long white corollas (up to 18 cm), which are densely covered by a greyish indumentum. This species possesses the longest corolla of all known *Acanthaceae* in Madagascar (BENOIST, 1955). *Crossandra nobilis* Benoist also has exceptionally long white corollas and interestingly, both of these species are restricted to quartzite substrates of the highlands of Madagascar. Several species in other families are also endemic to this substrate including *Ipomoea perrieri* Deroin (*Convolvulaceae*), *Perrierodendron quartzitorum* J.-F. Leroy, Lowry, Haev., Labat & G. E. Schatz (*Sarcoleaceae*), *Psidium quartzitica* Humbert, *Senecio quartziticulus* Humbert and *Vernonia quartzitica* Humbert (*Asteraceae*).

Conservation status. – *Ruellia quartzitica* is apparently very rare in its natural habitat. H. Perrier de la Bâthie collected the type nearly a hundred years ago, and P. Morat collected it 50 years later (*Morat* 3139). Both known localities are on the quartzite outcrops of the Malagasy highlands to the south-west of the town of Antsirabe (Fig. 1). Two important quartzite outcrops in this area, the Ibity and Itremo massifs, currently hold temporary protection status and are in the process of being established as new protected areas. However, despite intensive collection efforts at these sites, the species has not been located. With only two known collections, an “Area of Occupancy” (AOO) of 18 km² (following CALLMANDER & al., 2007), neither of which are within Madagascar’s protected area network, *Ruellia quartzitica* can be assessed as “Critically Endangered” (CR A3c) following the IUCN Red List Categories and Criteria (IUCN, 2012).

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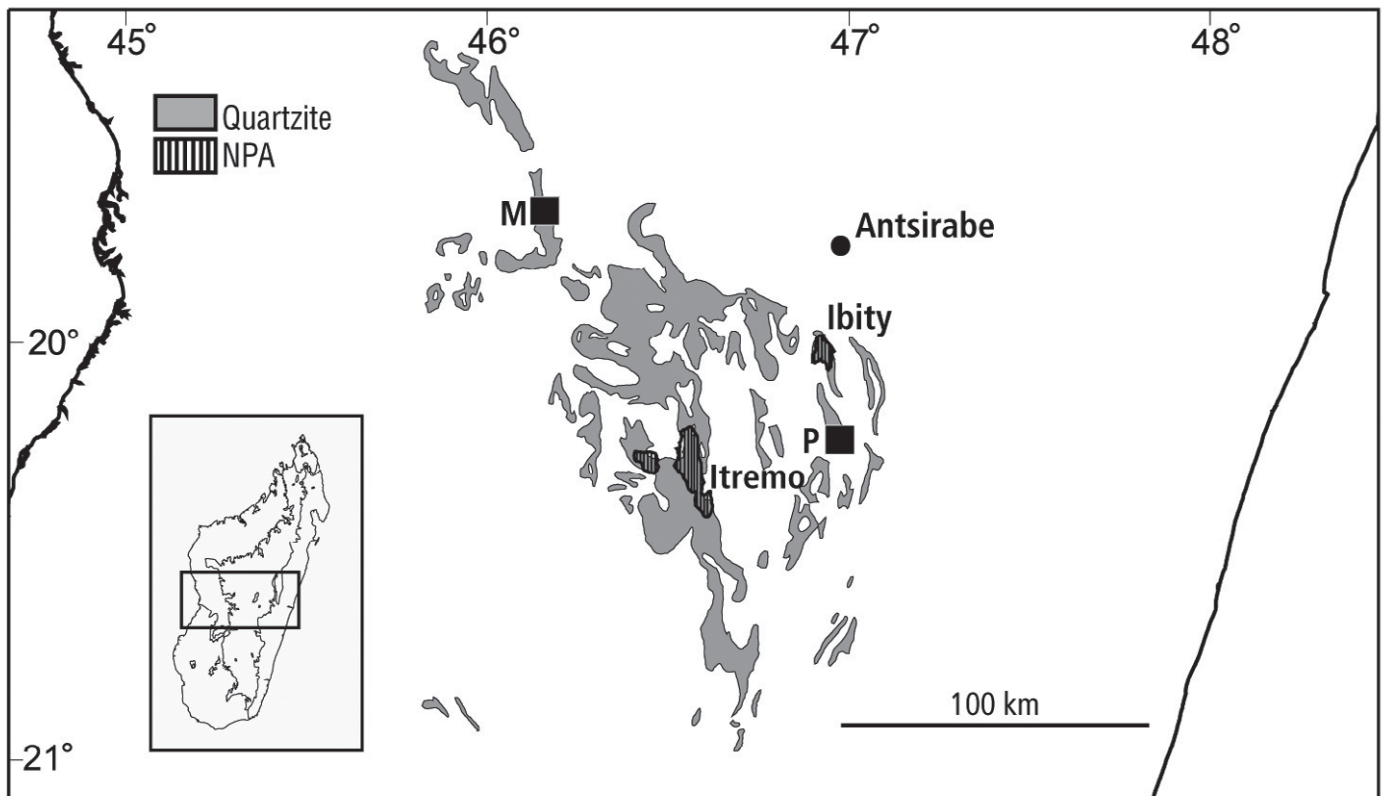


Fig. 1. – Detailed map of the Central Highlands including quartzite substrate in the region (grey) and proposed new protected areas (hatched); collections of *Ruellia quartziticola* Callm., E. Tripp & Phillipson (squares: Perrier de la Bâthie 12374 [P]; Morat 3139 [M]).

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