

## **Recognition of *Croton Multicostatus* Müll. Arg. (Euphorbiaceae) as Native to Madagascar**

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## Recognition of *Croton multicostatus* Müll. Arg. (Euphorbiaceae) as native to Madagascar

### Introduction

*Croton* L. (Euphorbiaceae) is one of the largest and most complex genera of angiosperms on Madagascar, with up to 150 species considered to be endemic there (SCHATZ, 2001). As part of an ongoing revision of the species of *Croton* from Madagascar and nearby islands, we identify *C. multicostatus* Müll. Arg. as an earlier name for the Malagasy species that was treated by LEANDRI (1939) as *C. vernicosus* Baker. In his protologue, MÜLLER (1865) treated *C. multicostatus* as being native to the Caribbean, due to a confusing label on the holotype that referred to both Santo Domingo (Hispaniola) and Fort Dauphin (Madagascar). We determine here that *C. multicostatus* comes from Madagascar, and establish its priority over two later-described species.

***Croton multicostatus* Müll. Arg. in Linnaea 34: 79. 1865.**

**Typus: MADAGASCAR:** [Fort Dauphin], Commerson s.n. (holo-: P-JU 16338!; iso-: P-LA [P00382066]!).

= *Croton vernicosus* Baker in J. Linn. Soc., Bot. 22: 519. 1887. **Typus: MADAGASCAR:** Baron 4935 (holo-: K [K000347500]!; iso-: K [K000347498]!).

= *Croton sclerodorus* Baill. in Bull. Mens. Soc. Linn. Paris 2: 968. 1891. **Typus: MADAGASCAR:** Baron 4735 (holo-: P [P00133318]!).

**Additional specimens examined.** – **MADAGASCAR. Prov. Toliara:** Mahialambo, Fort Dauphin, 22.III.1972, Boiteau 2557 (P); route Evatra, Fort Dauphin, 19.II.1972, Debray 1754 (P); environs de Fort Dauphin, 19.X.1970, Keraudren-Aymonin & Aymonin 25002 (P), 25014 (P); Cap Itapemina, près de Fort Dauphin, 9.XII.1960, Leandri & Saboureaux 4367 (P); forêt de Manantantely, 50–250 m, 9.XI.1990, Rabevoahitra 2428 (K, MO, P); forêt de Manantantely 3 km N de la route Fort Dauphin–Soanierana, 24°59'12"S 46°55'36"E, 29.XI.2002, Randrianaivo & al. 855 (MO); Lokaro, N de Fort Dauphin, XII.1969, Morat 3434 (P); Fort Dauphin, V.1889, Scott Elliot 2619 (K); Emanara, 16.XI.1964, Service Forestier 21972 (P: 3 sheets); domes granitiques entre Mandromondromotra et Lokaro, N de Fort Dauphin, 9.XII.1968, Service Forestier 28649 (K, MO, P); beach of Lokaro, 2.VI.1968, Seligson 641 (MO); road from Fort Dauphin to Sainte Luce, 24°55.787'S 46°59.941'E,

15 m, 17.II.2009, van Ee & al. 924 (MICH, TAN). **Prov. Fianarantsoa:** Farafangana Distr., entre Vondrozo et Ivohibe, 18.IX.1926, Decary 5435 (G, K, P). **Uncertain Prov.:** recd. 1905, Baron 6876 (K).

**Observations.** – The holotype of *C. multicostatus* at P-JU, which MÜLLER (1865) cited and annotated, bears a label in the middle that led Müller to confusion about its provenance (Fig. 1). At the top of the label is an annotation of “*Croton citrifolium* Lam.”, and below that in another script is “Sauge en arbre [de St. Domingue, selon M. De Beauvoir] quartier du Fort Dauphin.” Further below in the same script appears “St. Domingue. Tiré d’un ancien herbier donné? par M. Thuillier.” In P-LA, there is a second specimen that ostensibly came from the same gathering as the holotype but bears a different label, “no. 39, de Madagascar, j. maut.” We located a specimen of *C. trichotomus* Geisel. in P-LA that has a similar label to this in the same script, labeled as “no. 38, de Madagascar, j. maut.”, and which LEANDRI (1939) attributed to the collector Philibert Commerson. Based on this information and comparison with contemporary specimens from Madagascar, we conclude that the holotype of *C. multicostatus* came from the Fort Dauphin area of southeastern Madagascar, where Commerson collected in late 1770 (DORR, 1997). There are four other species of *Croton* from southeastern Madagascar that are typified by Commerson collections at P-LA, namely, *C. bracteatus* Lam., *C. cassinoides* Lam., *C. farinosus* Lam., and *C. trichotomus* Geisel.

When LEANDRI (1972) treated *C. sclerodorus* as a synonym of *C. vernicosus*, he considered that the types, Baron 4735 and 4935, may have come from the same collection, and that either the 7 or the 9 was transliterated on one of them. Although we cannot determine if this is correct, both collections closely match the type of *C. multicostatus*, and these species are therefore treated here as synonyms.

As delimited here, *C. multicostatus* is a distinctive small tree species that is largely confined to a small area north of the city of Fort Dauphin. It appears to grow mostly in cracks of granitic

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## References

- DORR, L. J. (1997). *Plant Collectors In Madagascar and the Comoro Islands*. Royal Botanic Gardens, Kew.
- LAMARCK, J. B. (1786). *Encyclopédie Méthodique, Botanique* 2: 203-216. Panckoucke, Paris.
- LEANDRI, J. (1939). Les Croton de Madagascar et des îles voisines. *Ann. Inst. Bot.-Géol. Colon. Marseille* ser. 5, 7: 1-100.
- LEANDRI, J. (1972). Contribution à l'étude des Croton Malgaches à grandes feuilles argentées. *Adansonia* 12: 403-408.
- MÜLLER, J. (1865). Euphorbiaceae. Vorläufige Mittheilungen aus dem für De Candolle's Prodrömus bestimmten Manuscript über diese Familie. *Linnaea* 34: 1-224.
- SCHATZ, G. E. (2001). *Generic tree flora of Madagascar*. Royal Botanic Gardens, Kew & Missouri Botanical Garden, St. Louis.