

A new species of *Argomuelleria* Pax (Euphorbiaceae) from Madagascar

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McPherson G. 2012. — A new species of *Argomuelleria* Pax (Euphorbiaceae) from Madagascar. *Adansonia*, sér. 3, 34 (1): 67-70. <http://dx.doi.org/10.5252/a2012n1a7>

KEY WORDS

Euphorbiaceae,
Acalyphoideae,
Argomuelleria,
Madagascar,
new species.

ABSTRACT

A new species belonging to the genus *Argomuelleria* Pax from Madagascar is described. This species resembles *A. danguyana* (Leandri) J.Léonard but differs in being a treelet with nearly entire leaves and a slenderer inflorescence that bears smaller staminate and pistillate flowers.

RÉSUMÉ

Une nouvelle espèce d'Argomuelleria Pax (Euphorbiaceae) originaire de Madagascar.
Une nouvelle espèce d'*Argomuelleria* (Euphorbiaceae) de Madagascar est décrite. Cette espèce est proche d'*A. danguyana* (Leandri) J.Léonard mais diffère par sa petite taille, ses feuilles presque entières et son inflorescence plus élancée portant des fleurs plus petites.

MOTS CLÉS

Euphorbiaceae,
Acalyphoideae,
Argomuelleria,
Madagascar,
espèce nouvelle.

INTRODUCTION

Argomuelleria Pax, as currently recognized, is a genus of 12 species, six in tropical mainland Africa and six in Madagascar and the Comoro Islands, and is placed in the tribe Pycnocomeeae of subfamily Acalyphoideae (Radcliffe-Smith 2001). It is distinguished from the related genera *Pycnocomia* Benth. and *Droceloncia* J.Léonard mainly by features of its pistillate flowers, which differ in being borne laterally on the inflorescence and in possessing a disk. Three recent collections of an *Argomuelleria* species from southeastern Madagascar that do not match any of the recognized taxa are here used as the basis for the description of a new species.

SYSTEMATIC

Argomuelleria pumila McPherson, sp. nov.
(Fig. 1)

A congeneribus speciebus madagascariensibus sylvae austro-orientalis combinatione habitus (arbuscula 0.6-2 m) cum foliis angustis (3.5-6 cm) subintegris, inflorescentiis gracilibus rare pubescentibus, bracteis parvis, pedicellis staminatis brevibus (1.5-2 mm), staminibus paucis (14-28), sepalis pistillatis parvis (1.5-2 mm), et fructibus puberulis distinguenda.

TYPUS. — Madagascar. Prov. Fianarantsoa, forêt classée near Manombo Reserve, disturbed forest on laterite, 23°03'16"S, 47°40'28"E, 100 m, 15.XI.2001, fl., fr., McPherson & Rabenantoandro 18425 (holo-, MO!; iso-, K!, P!, TEF!).

PARATYPI. — Madagascar. Prov. Fianarantsoa, réserve spéciale de Manombo, parcelle 1, degraded lowland forest, 23°01'43"S, 47°43'51"E, 20-50 m, 24.X.2000, fl., fr., Hoffmann, Ranaivojoana, Ralimanana, Richard & Ramaharitra 271 (K, TAN). — Forêt classée de Manombo, sur latérite, 23°04'00"S, 47°40'33"E, 42 m, 27.IX.2002, fl., fr., Rabevohitra, Rabenantoandro & Razakamalala 4127 (MO, TEF).

DESCRIPTION

Monoecious treelets 0.6-2 m tall; twigs sparsely appressed-pubescent at first, quickly glabrate. Leaf blades narrowly oblanceolate, 14-34 cm long, 3.5-4.5(-6) cm wide, base attenuate or narrowly cuneate, apex acuminate, margin entire or subentire (with

c. 5 obscure teeth per side), midrib slightly raised adaxially, prominent abaxially, secondary veins (8-)12-18 on each side of the midrib, higher venation somewhat obscure, abaxial surface sparsely appressed-pubescent while immature, quickly glabrate, adaxial surface glabrous, with minute (up to 0.3 mm diameter) slightly sunken glands present abaxially, especially parallel to the midrib; petiole 1-6.5 cm long, swollen basally, merging imperceptibly with base of blade distally, sparsely appressed-pubescent while immature, soon glabrate; stipules broadly triangular, scarious-tipped, *c.* 0.5 mm long, soon obscured by stem growth. Inflorescences axillary, solitary, usually racemiform but occasionally with 1-few short (4-28 mm) proximal branches, 22-45 cm long, 1 mm in diameter at mid-length, usually bisexual, each fascicle typically of 0-1(-2) pistillate plus 2-5 staminate flowers, rachis thinly pubescent with relatively short hairs; bracts up to 1 mm long, bracteoles up to 0.5 mm long; staminate pedicels 1.5-2 mm long, sparsely pubescent, pistillate pedicels 1.5-2.0 mm long at anthesis, jointed, basal segment 0.5-1.0 mm long, the distal 0.5-1.0 mm long, pubescent. Staminate flowers: calyx splitting into 2 valves each 2.5 mm long, *c.* 1.5 mm wide, pubescent; petals absent; stamens 14-28 in number, 1.5-2.0 mm long, filaments erect or nearly so in bud, anthers typically each bearing a few hairs; disk interstaminal, pubescent; pistillode absent. Pistillate flowers: sepals 5(-6) in number, 1.5-2 mm long, 0.7-1 mm wide, sparsely pubescent; petals absent; disk annular, pubescent; ovary 3-lobed, *c.* 2 mm long, *c.* 3 mm wide, pubescent, styles 3 in number, fused basally for *c.* 0.5 mm, coarsely papillose adaxially, pubescent abaxially, free portions 1.5-2 mm long. Fruiting pedicel accrescent, basal segment up to 7 mm long, the distal *c.* 2 mm long, sparsely pubescent. Fruit 3-lobed, 6-7 mm long, 12-13 mm wide, puberulent with white hairs, column 4 mm long, calyx and styles persistent; seeds subspherical, *c.* 6 mm in diameter, smooth, mottled.

REMARKS

The new species resembles *Argomuelleria danguyana* (Leandri) J.Léonard, which also has relatively narrow leaves, but mature representatives of *A. danguyana* are trees (the wood reportedly used in construction)

MADAGASCAR
EUPHORBIACEAE

Fianarantsoa

S. of Farafangana, in Forêt
Classée near Manombo Reserve;
disturbed forest on laterite.
23°03'16"S 047°40'28"E 100 m

Treelet 2 m; axis red; flowers
yellow-green; fruit red.
15 November 2001

G. McPherson & J. Rabenantoandro 18425
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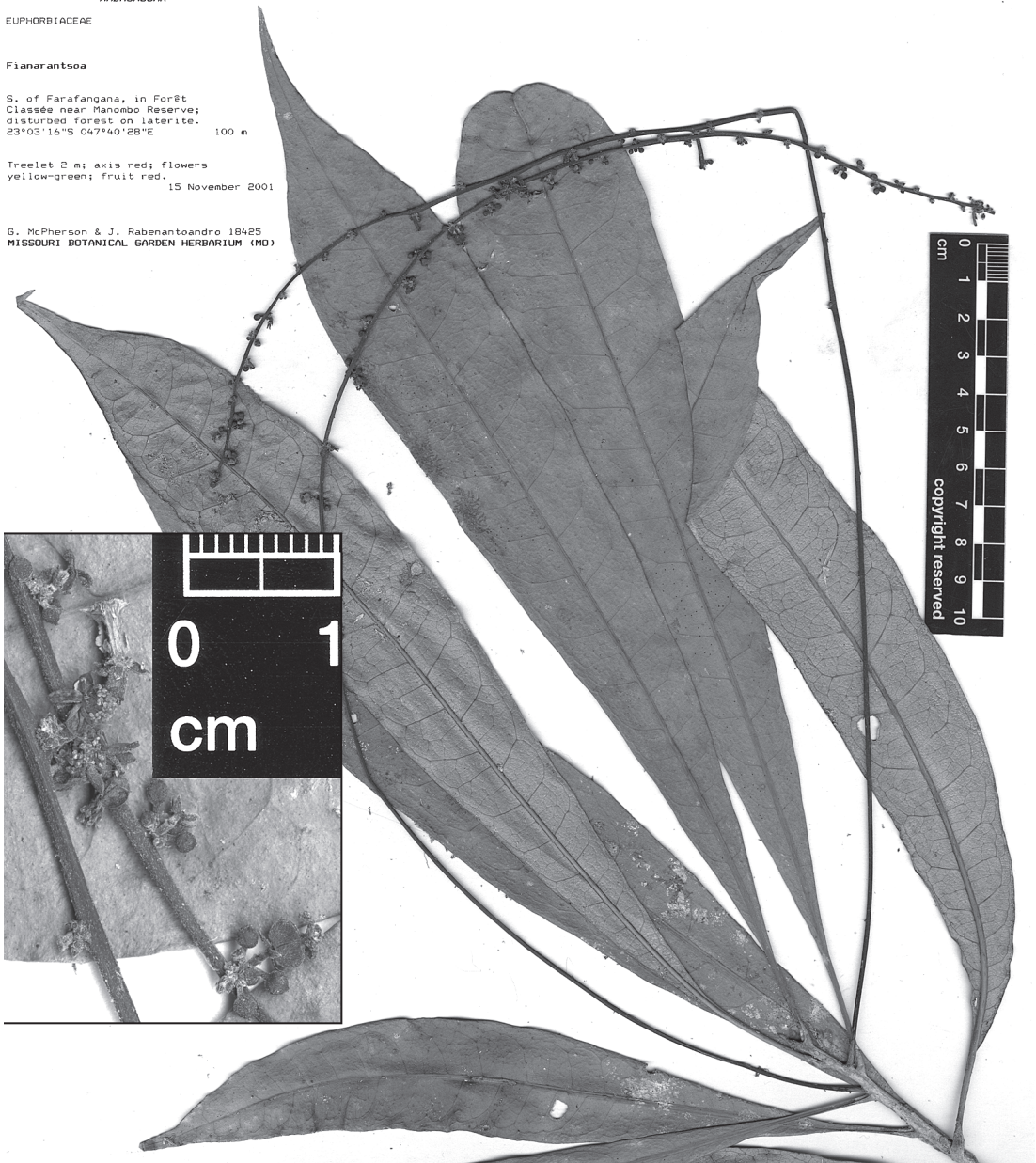


FIG. 1. — *Argomuelleria pumila* McPherson, sp. nov.: branch bearing flowers and fruits, plus inset of detail of inflorescence. McPherson & Rabenantoandro 18425.

with more markedly dentate leaves, thicker (2 mm in diameter) and more coarsely pubescent inflorescence axes, larger bracts and bracteoles (respectively, 2.5 mm and 1.5 mm long), longer staminate pedicels

(4-5 mm), more stamens (*c.* 35), larger pistillate sepals (*c.* 3 mm long), and fruit with a longer, more yellowish indument. Leandri (1941) considered the latter taxon similar to his *Pycnocomia perrieri*, which

has also been transferred to *Argomuelleria* (Léonard 1959). The new species does resemble *A. perrieri* (Leandri) J. Léonard in its short stature, subentire leaves, and habitat (lowland eastern rainforest), but differs in that *A. perrieri* has leaves with shorter petioles (*c.* 1 cm vs 1-6.5 cm), a subobtusate base (vs attenuate or narrowly cuneate), a subacuminate apex (vs acuminate), and more numerous secondary veins (20-25 vs 8-18); inflorescences that can be widely branched (the branches up to 7 cm long vs *c.* 3 cm), with a stouter rachis (2 mm in diameter vs 1 mm); staminate flowers with pedicels 3-8 mm long (vs 1.5-2 mm) and stamens numbering *c.* 30 (vs 14-28). As well, *A. perrieri* is thus far known from only the northern third of the eastern forest, whereas *A. pumila* sp. nov. appears to be restricted to the region of Manombo.

CONSERVATION STATUS

Argomuelleria pumila is known from only three recent collections made in a remnant forest that occupies less than 100 km², but that lies partly within a protected area (Manombo). Other small patches of potentially

similar forest exist within 50 km, but they have not been adequately explored. A conservation status of Vulnerable (VU) is therefore suggested (IUCN 2001).

Acknowledgements

I gratefully acknowledge the assistance of Ken Wurdack (US) and Petra Hoffmann (K) with placement of the species, Gill Challen (K) for details of the Kew specimens and Fred Keusenkothen (MO) for providing the illustration.

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*Submitted on 15 February 2011;
accepted on 12 September 2011.*