
New Taxa and Nomenclatural Notes on the Flora of the Marojejy Massif, Madagascar—II. Anacardiaceae: A New Species of *Camposperma*

James S. Miller and Armand Randrianasolo

Missouri Botanical Garden, P.O. Box 299, St. Louis, Missouri 63166-0299, U.S.A.

ABSTRACT. A new species of the genus *Camposperma*, previously considered to contain only a single species in Madagascar, is described from the Massif de Marojejy in northeastern Madagascar. *Camposperma parvifolium* differs from *C. micrantheum* in its smaller leaves, with fewer secondary veins, and sparsely but evenly lepidote leaf under-surface. It occurs on high mountain ridges at Marojejy and Anjanaharibe, while *C. micrantheum* is a species found on sand in littoral forests.

The Massif de Marojejy in northeast Madagascar, in the province of Antsiranana, has always been of great interest botanically (Humbert, 1955), but recent intensive collecting has yielded a variety of new species (Miller, 1998; Miller & Pipoly, 1993). *Camposperma*, a genus of Anacardiaceae with perhaps a dozen species in tropical America, Madagascar, the Seychelles, tropical Asia, and the western Pacific, has been previously considered to consist of only a single species in Madagascar, *Camposperma micrantheum* L. March (Perrier de la Bâthie, 1946). The species are trees having leaves with lepidote scales, unisexual flowers with twice as many stamens as petals, and a 2-celled drupe. René Capuron had reviewed the herbarium material from Madagascar in the herbarium of the Laboratoire de Phanérogamie, Muséum National d'Histoire Naturelle (P) and annotated the specimens, recognizing several infraspecific taxa, but his results were never published. Examination of the presently available collections of *Camposperma* indicates that the variation presented is much too significant to be accounted for by a single species (Miller & Randrianasolo, in prep.). One population that is particularly distinct is the following new species.

Camposperma parvifolium R. Capuron ex J. S. Miller & A. Randrianasolo, sp. nov. TYPE: Madagascar. Antsiranana: Réserve Naturelle Marojejy, along the trail to the summit of Marojejy Est, below the third camp, lichen forest and exposed wind-swept ridges, elev. 1100–1300 m, 14°26'S, 49°15'E, 10 Oct. 1988, James S. Miller et al. 3529 (holotype, MO 5067322; isotypes, G, K, NY, P, TAN, TEF, US). Figure 1.

Arbor parva vel frutex, 2(10–12) m alta. Folia persistentia, coriacea; lamina elliptica ad obovata (1.4–)2–6.7 cm longa, (0.9–)1.5–3.3 cm lata, apice retusa ad rotundata, basi obtusa ad cuneata, pagina inferiore glabra vel sparsim stellata, lepidota. Inflorescentiae racemosae ad paniculatae, (1–)3.3–6.3 cm longae. Flores unisexuales, gemmae 1 mm longae. Fructus drupaceus, ellipsoideus, 7–9 mm longus, 5–7 mm latis, glabratus.

Small tree or shrub 2(10–12) m tall, the young twigs densely covered with a mixture of lepidote scales and stellate hairs, later glabrescent and smooth or somewhat waxy. The leaves persistent, coriaceous; blades elliptic to obovate, (1.4–)2–6.7 cm long, (0.9–)1.5–3.3 cm wide, the apex retuse to rounded, the base obtuse to cuneate, sometimes briefly decurrent along the petiole for ca. 1–2 mm, the margin strongly revolute, entire, the adaxial surface glabrous, waxy, and lustrous, sometimes sparsely lepidote, the abaxial surface glabrous or occasionally with sparse stellate hairs, evenly lepidote (appearing gland-dotted), but the scales not overlapping, the venation brochidodromous, prominent, and raised on both surfaces, the secondary veins 5–9, parallel, often only slightly more prominent than the dense reticulum of tertiary veins on the lower surface; petioles 3–8 mm long, stout, canaliculate on the adaxial surface, lepidote to densely stellate-pubescent. Inflorescences borne in the upper leaf axils, sparsely branched panicles or racemes (1–)3.3–6.3 cm long, the branches evenly to densely lepidote to stellate, each flower subtended by a triangular bract 0.5–1 mm long. Flowers unisexual, the plants functionally dioecious, with reduced anthers in female flowers and reduced ovaries in male flowers, small, 1 mm long in bud, 3–4 mm diam. when open, on pedicels 0.5–1.5 mm long, ca. 1 mm diam.; sepals 4, imbricate, deltate, ca. 0.5 mm long, lepidote; petals 4, imbricate, broadly elliptic, 1–2 mm long, ca. 1 mm wide, glabrous or with an occasional lepidote scale on the exterior surface; stamens 8, the filaments inserted at the base of the disc, flattened and broader at the base, ca. 0.5 mm long, the anthers ca. 0.2 mm long; nectariferous disc annular and unevenly lobed; ovary ovoid, small, and partially immersed in the an-

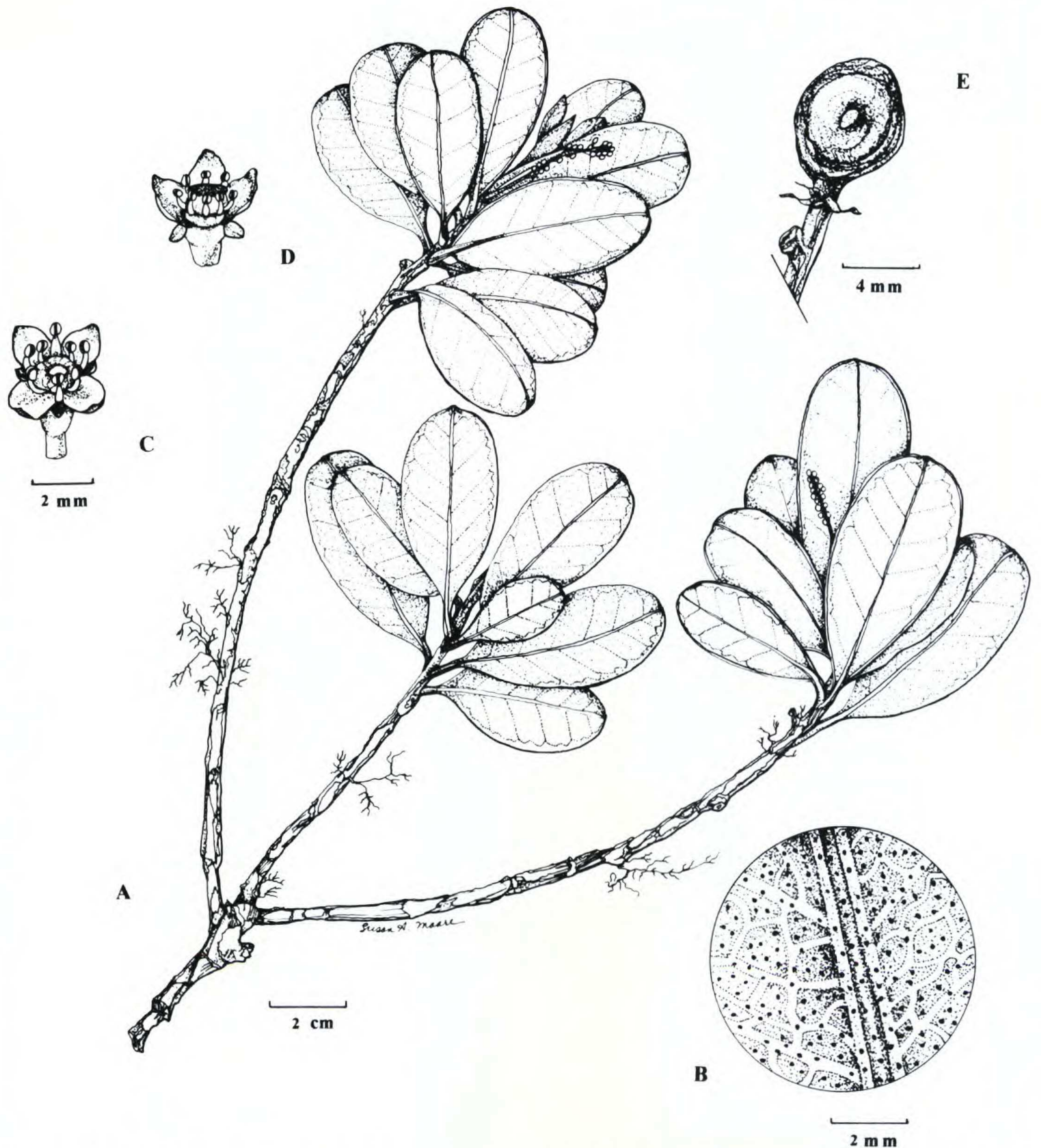


Figure 1. *Camnosperma parvifolium* R. Capuron ex J. S. Miller & A. Randrianasolo.—A. Flowering branch with fruticose lichens along stems.—B. Lower leaf surface with lepidote scales.—C. Male flower.—D. Female flower.—E. Fruit. A, B, C, and E from Miller *et al.* 3529. D from SF 936.

nular disc, the stigma subdiscoidal. Fruit drupaceous, broadly ellipsoid, 7–9 mm long, 5–7 mm broad, glabrous.

Camnosperma parvifolium is known only from upland parts of the massifs of Marojejy and Anjanaharibe Sud, where it occurs from 700 to 1600 m. It is a common tree or shrub of the short forests that occur along wind-swept ridges, and the branches are often covered with lichens.

This distinctive species is characterized by

leaves that are always less than 7 cm long, generally much smaller than those found in any of the other Malagasy populations of *Camnosperma*, less than nine secondary veins, and a lower leaf surface with evenly spaced, very small lepidote scales, giving rise to a glandular appearance. The flowers are also only about 1 mm in diameter, much smaller than those of *C. micranteium* and other Malagasy populations of *Camnosperma*. René Capuron had begun a study of the genus and had annotated some

of the specimens in the herbarium of the Laboratoire de Phanérogamie in Paris (P), but he never published on the group. A study currently under way (Miller & Randrianasolo, in prep.) will provide a modern revision of the Malagasy species, but this name is published in advance to make it available for a checklist of the flora of the Marojejy massif (Miller et al., in prep.).

Paratypes. MADAGASCAR. **Antsiranana:** Rive gauche de la Manantenina, versant sud du Beondroka, 1040 m, 14°25'S, 49°50'E, *Deroin & Badré 40* (MO, P); Massif de l'Anjanaharibe (pentes et Sommet Nord) à l'ouest d'Andapa, sylve à lichens, 1600–1800 m, *Humbert et al. 24783* (P); Réserve Naturelle de Marojejy, western slopes and summit of Mt. Beondroka, lichen forest and open wind-swept ridges, 830–1210 m, 14°27'S, 49°47'E, *Miller & Randrianasolo 4473* (MO, TAN); Réserve Naturelle de Marojejy; western slopes of Mt. Beondroka, cloud forest and open, wind-swept ridges, 750–900 m, 14°27'S, 49°47'E, *Miller & Randrianasolo 4487* (MO, P, TAN); Réserve Naturelle de Marojejy, along the trail to the summit of Marojejy Est, N of Mandena, premontane forest, lichen forest, and exposed wind-swept ridges below the 3rd camp, 900–1300 m, 14°26'S, 49°46'E, *Miller & Randrianasolo 4683* (MO, P, TAN); Réserve Naturelle Intégrale de Marojejy, 10.5 km NW of Manantenina, along tributary at head of Andranomifotra River, Campement 4, 1625 m, 14°26'24"S, 49°44'30"E, *Rakotomalaza et al. 871* (MO, P); Massif de l'Anjanaharibe (W d'Andapa), 1600 m, *SF 936* (P—2 sheets).

The name *Camptosperma* was originally published as neuter by Thwaites (1854), and this has been followed by recent authors (Hou, 1978). However, the name was treated incorrectly as feminine

in the *Flore de Madagascar et des Comores* (Perrier de la Bâthie, 1946), so *Camptosperma micranteia* is corrected to conform orthographically as *C. micranteium*.

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