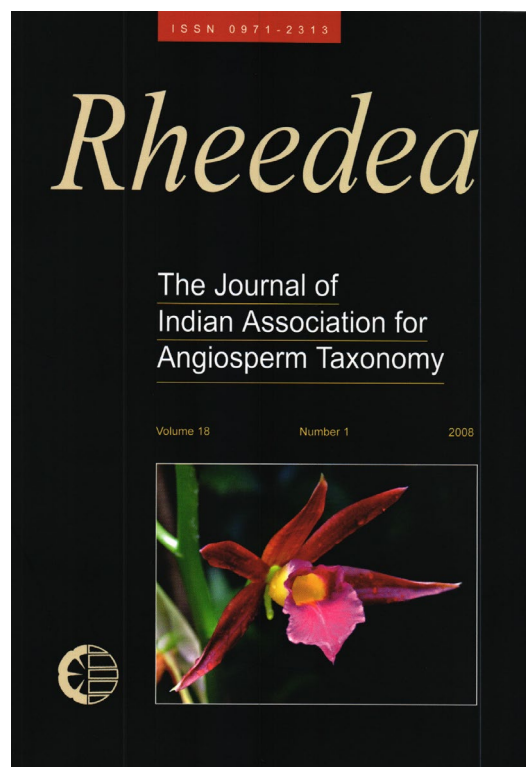




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How to cite:

**Kumar E.S.S., Radhakrishnan K., Kunhikannan C., Veldkamp J.F. & C.N. Mohanan 2008.** Rediscovery of *Maesa velutina* Mez (Maesaceae / Myrsinaceae): An Endemic and Endangered Species of the Western Ghats, India. *Rheedia* 18(1): 39-42.

<https://dx.doi.org/10.22244/rheedia.2008.18.01.06>

Received: 29.08.2007

Revised and accepted: 26.03.2008

Published in print: 31.08.2008

Published Online: 31.08.2008

# Rediscovery of *Maesa velutina* Mez (Maesaceae / Myrsinaceae): An Endemic and Endangered Species of the Western Ghats, India

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## Abstract

*Maesa velutina* Mez (Maesaceae / Myrsinaceae) is rediscovered after more than a century. It is described and illustrated with a brief history.

Keywords: *Maesa velutina*, Rediscovery, The Western Ghats

## Introduction

In 1995, during an ethnobotanical inventory in the Wayanad district of northern Kerala, myrsinaceous plants were collected in two localities by K. Radhakrishnan. They resembled *Maesa indica* (Roxb.) A. DC. (Maesaceae / Myrsinaceae) but literature studies (e.g. Mez, 1902; Gamble, 1921; Sasidharan, 2004) showed that they belonged to *Maesa velutina* Mez, a species of the Western Ghats known from only a few ancient collections. It matched with the holotype (*A. Gibson, s.n., L*, see <http://145.18.162.53:81/c8>, a fruiting specimen collected in the Bombay Presidency). Unfortunately, its exact provenance and date of collection were not noted. The species was easily overlooked by later authors because its name was not entered in the *Index Kewensis*. Still, as it was not described again as “new”, this is an indication of its rare occurrence.

A biography of Alexander Gibson (1800-1867) was published by Noltie (1999). Gibson arrived in India in 1825, where he was at first a surgeon with the East

Indian Company and later (1847) the Conservator of Forests of the Bombay Presidency. In 1836 he was employed throughout the Deccan and Khandesh (NW Maharashtra) to vaccinate the Company's troops against smallpox. During this rural occupation he was collecting and drying plants, partly out of botanical interest, partly because he needed them for his medications. He was in North Kerala several times between 1843-1854 (Noltie, pers. com.). He continued to collect until his retirement in 1860, after which according to some sources (Thomson, 1857), “A large herbarium from the Bombay Presidency, presented by Dr. Gibson, consisting partly of his own collections...” was given to the Calcutta Botanic Garden (presently the Central National Herbarium, Kolkata, CAL). However, Lanjouw and Stafleu (1957: 223) stated that the original herbarium would be in K, with duplicates in at least CAL, L, LE, and NY. Contrary to this, the L specimen has a Calcutta label. Perhaps, more data can be found in CAL. It is usually

reported that Gibson died in Bombay, but Noltie noted that in 1860 he had returned to his estate in Scotland where he died in 1867. In his will he left his botanical books to Joseph Dalton Hooker, the Director of Kew, so why not a herbarium as well? A search in the Kew online catalogue (<http://www.kew.org/herbcat>) turned up a few Gibson specimens with apparently original labels, not the preprinted CAL ones.

Note, however, that Theodore Cooke (1904) doubtfully included this species in his Flora of the Bombay Presidency, and wrote: "Of this I have seen no specimens; there are none in Herb. Kew Herbarium ... Mez describes the fruit as subacute at the apex, otherwise the description would apply to *Maesa indica*, var. *dubia*". Cooke's remarks suggested to later botanists (Yoganarasimhan *et al.*, 1981; Saldanha & Ramesh, 1984) that *M. velutina* should be merged with *M. dubia* Wall., or even with *M. indica* proper.

William Alexander Talbot (1847-1917) was an Irish forest-botanist in the Indian Forest Service and served as the Conservator of Forests in the Bombay Presidency. In 1911, he cited Cooke and treated *M. velutina* as an unknown species. He was unaware that he himself had bumped into it in January 1896 at Girrasappa Ghat ('Gairsappan Ghat') in the erstwhile North Kanara district of Karnataka, for he identified it with *M. dubia* (Talbot 3748, K). This was later identified by Gamble as *M. velutina*.

Richard Henry Beddome (1830-1911), an English army officer and forest-botanist, collected it in Wayanad ("Wynaad") (Beddome 36, K, perhaps also in BM, CAL), without providing further details. This is a vast area in North Kerala. Based on this, Gamble (1921) included it in a key and noted: "Apparently a large shrub, very ferruginous tomentose when young, less so when old, the leaf serratures strong and regular". Sasidharan (2004) included this species for Kerala based on Beddome's collection.

Both Beddome's and Talbot's collections consist of flowering and fruiting specimens.

*Maesa velutina* is listed as an endangered species (IUCN, 2000) as it was known only from these three old gatherings. The present ones from the Kochiravayal forest (11° 50' 088" N, 75° 50' 399" E) and the Periyar Forest Range (11° 47' 973" N, 75° 51' 177" E) in the Wayanad district of Kerala are at the moment the only two known localities of the species. It is locally called 'Payyadi' and the fruits are said to be edible. There is a good population of this plant

in Kochiravayal: more than 100 mature individuals were seen in an area less than 1 sq. km. It is facing threat by repeated forest fires and the locality presently is protected by the Kerala State Forest Department under the Gene Pool Conservation Programme. The second locality is near a stream bank where grazing cattle are the main danger. Efforts taken to conserve the species with the help of local people hopefully will continue to be successful.

***Maesa velutina*** Mez in Engl., Pflanzenr. IV, 236: 35. 1902. — Type: *Gibson s.n.* (L, holo, sh. 900.211 – 447; ? CAL). **Fig. 1**

*Large shrubs; small trees* or bark thin; young shoots ferruginous hairy. *Petioles* 5-1.5 mm long; blades elliptic, 4-15 x 5-7 cm, base acute to obtuse, margin serrate, apex acuminate, subcoriaceous, densely ferruginous tomentose when young, glabrous above except along the veins when old, densely pilose beneath, lateral nerves 8-12 pairs, forked near the margin, secondary and tertiary nerves loosely reticulate with glandular dots and lines. *Inflorescence* a paniculate raceme, axillary or lateral, sometimes also cauliflorous, 2-15 cm long; bracts ovate, up to 2 mm long, outside densely pilose near the base, inside glabrous, apex acute; pedicel up to 1 mm long in flower and 1.5-2 mm long in fruit, densely pilose; bracteoles up to 1 mm long, ovate; sepals ovate-suborbicular, 1-1.5 mm long, margins ciliate, apex obtuse; corolla tube up to 1 mm long; lobes ovate, 1 - 1.3 x 1-1.5 mm, margins sparsely ciliate; filaments up to 0.8 mm long, glabrous; style 0.2-0.3 mm long; stigma capitate. *Berry* globose or subglobose, 3.5-4 mm in diameter; testa black.

*Flowering & Fruiting:* January-May.

*Habitat:* Growing at c. 725 m altitude in the Western Ghats. In the Kochiravayal forest in North Wayanad Forest Division, it occurs along a stream bank associated with *Antidesma menasu*, *Artabotrys hexapetalus*, *Callicarpa tomentosa*, *Goniothalamus wynaadensis*, *Holigarna grahamii*, *Jasminum coarctatum*, *Leea indica*, *Mappia foetida*, *Pogostemon paniculatus* and *Vateria indica*.

*Distribution:* India (Western Ghats, **Kerala, Karnataka**), endemic, apparently very rare.

*Specimens Examined:* INDIA, **Kerala**, Wayanadu District, Wayanadu, Beddome 36 (K, no. K000357603, photo seen); Mananthavady (c. 11° 48' N, 76° 2' E), K. Radhakrishnan 19775 (TBGT); Kochiravayal forest, Periya Forest Range, Santhosh Kumar & K. Radhakrishnan 48644 (TBGT); 58701 (TBGT).

Karnataka, Belgaum district (formerly in the North Kanara district), Girrasappa Ghat ('Gairsoppa Ghat'), 10 January 1896, Talbot 3748 (K, no.

K000357604, photo seen). **Bombay Presidency**, Gibson *s.n.* (holotype, L; ? CAL).

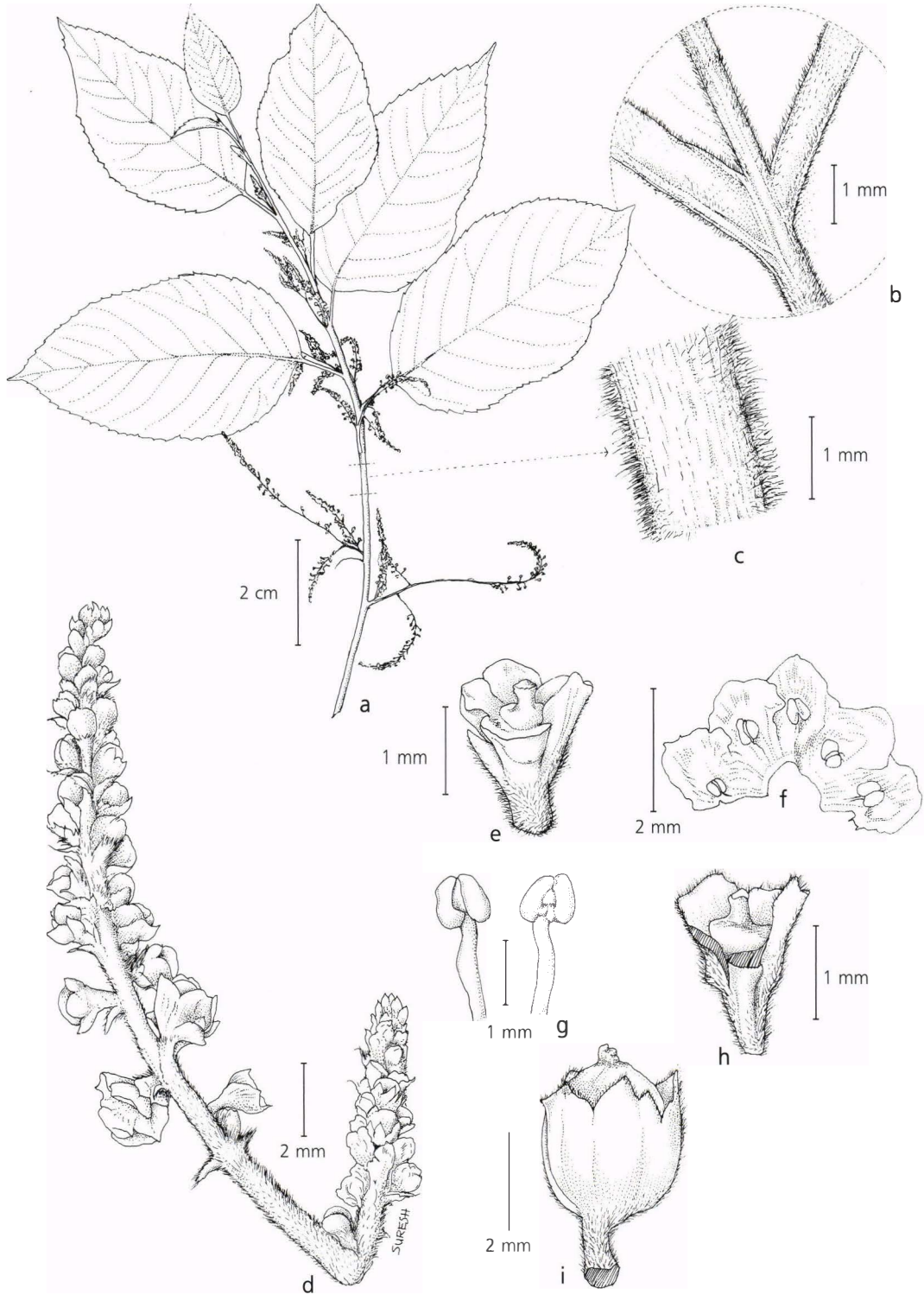


Figure 1. *Maesa velutina* Mez. a. Twig, b–c. Part enlarged, d. Inflorescence, e. Flower without petals and stamens, f. Corolla spread out showing anthers, g. Stamens, h. Pistil with sepals, i. Fruit.

## Key to species

- 1a. Branches sparsely pilose. Petioles 10-20 mm long. Mature blades c. 15 x 7 cm, base slightly attenuate, margin coarsely serrate, sparsely pilose to glabrous below, fruits truncate at apex.  
.....**Maesa indica**
- 1b. Branches densely ferruginous when young, later pilose. Petioles 5-15 mm long. Mature blades 4-15 x 5-7 cm, base acute to obtuse, margin serrate, when young densely ferruginous tomentose, when old glabrous above except along the veins, beneath densely pilose, fruits subacute at apex.....  
.....**Maesa velutina**

*Note:* Because the combination was not in the Index Kewensis (but is now cited in IPNI on the internet) Kanehira and Hatusima (1943) thought they could use it for a species from the Vogelkop Peninsula, West New Guinea (Papua Barat/ Irian Jaya), Indonesia. Sleumer (1987) regarded it as a synonym of *M. tetrandra* (Roxb.) A. DC. This species occurs in Malesia, Java, Celebes, Moluccas, and all over New Guinea.

We have introduced *M. velutina* Mez in the field gene bank of Tropical Botanic Garden and Research Institute, Palode, for future studies.

## Acknowledgements

The first three authors express their gratitude to the Kerala Forest Department for permitting them to conduct the study and to the Directors of TBGRI, CESS and IFGTB for the facilities provided. They are also thankful to Dr H. J. Noltie (E) for providing further information on Gibson's travels in India and to Dr S K Srivasthava, the Indian Liaison Officer at Kew for sending them the digital images of *Maesa velutina* specimens at K. Dr R. de Kok verified the absence at K of an isotype of *M. velutina*. Mr S. Suresh Kumar, Artist, TBGRI, provided the fine illustration.

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Received : 29.8.07

Revised and accepted : 26.3.2008