

**A Result of the 1996 Mueller Commemorative Expedition to
Northwestern Australia: *Melaleuca triumphalis* sp. nov.
(Myrtaceae)**

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Abstract

The new species, *Melaleuca triumphalis* Craven, is described and illustrated and its distribution is mapped. A key to distinguish it from its closest congeners (*M. nervosa* and *M. fluviatilis*) is provided.

Introduction

An expedition to the Victoria River region in northwestern Australia was undertaken in 1996, in part to commemorate the achievements of Ferdinand Mueller when he participated as botanist on Augustus Gregory's North Australian Expedition of 1855–56 (Walsh 1996). Among the interesting species that were collected during the recent expedition was a new species of *Melaleuca*, the subject of the present paper.

***Melaleuca triumphalis* Craven, sp. nov.**

Affinis *M. nervosae* (Lindl.) Cheel a qua frutice usque 2.5 m alto, cortice caulium subpapyraceo (arcto fissuratoque), indumento ramulorum hirto (trichomatibus pubescentibus perlongis), foliis apice acutis usque anguste acutis, lobis calycis 1.9–2.5 mm longis, petalis 5.1–7 mm longis, staminibus 7–12 in quoque fasce, ovulis c. 120–160 in quoque loculo, infructescentiis 15–17 mm latis, et fructibus minimum annis aliquot persistentibus differt.

Type: Northern Territory: Gregory National Park, Victoria River Gorge, c. 6 km SW of the Victoria River roadhouse, 17 Sep 1996, *Cowie and Mangion* 7327 (holotype CANB; isotypes DNA *n.v.*, MEL, NSW).

Shrub to 2.5 m tall; bark grey, tight, fissured, subpapery. *Indumentum* of branchlets and leaf blades shaggy, with very long, straight, spreading-ascending to spreading hairs overtopping a dense layer of very short pubescent to lanuginulose hairs. *Leaves* spiral, ascending to spreading, the petiole 5–15 mm long, the blade isobilateral, narrowly elliptic, 60–140 mm long, 15–25 mm wide, 4–6 times as long as wide, the base narrowly cuneate or attenuate, the apex acute or narrowly acute, veins 3–5, silvery at first due to the dense hair covering but becoming glabrate and greenish with age, the oil glands scattered. *Inflorescence* a head or short spike of triads (although spicate in bud, at anthesis the inflorescence is shorter than wide), up to 65 mm wide; with 10–20 triads per inflorescence. *Hypanthium* with puberulous and lanuginulose hairs (extremely dense puberulous hairs grade through to sparser lanuginulose hairs), cup-shaped (sometimes approaching cylindrical), 2.8–4.6 mm long, 3–3.9 mm wide. *Calyx lobes* 5(–7) (some flowers have 1 or 2 additional sepals outside the usual 5), herbaceous to or almost to the margin, 1.9–2.5 mm long, with

puberulous, lanuginulose, and sericeous-pubescent hairs (the indumentum is much like that of the hypanthium but has an overstorey of much longer sericeous-pubescent hairs; *Petals* hairy, distinctly clawed, ovate or elliptic, 5.1–7 mm long. *Stamens* 7–12 per bundle; the filaments glabrous, green (described as turning yellow with age), 19.5–24.3 mm long, the bundle claw 2–16.5 mm long (very long claws occur when two or more of the filaments are fused for a large proportion of their length, it may not be all of the filaments that diverge at this length). *Style* 27.5–35.3 mm long. *Ovules* c. 120–160 per locule. *Infructescence* 15–17 mm wide; fruit not early dehiscent and apparently persisting for several years, the fruiting hypanthium 3.7–5.6 mm long, 4.1–6.7 mm wide, 1.8–3.6 mm wide at the orifice. *Seed* with the cotyledons obvolvate. (Fig. 1)

Other Specimens Examined

Northern Territory: Gregory National Park, Victoria River Gorge, c. 7.3 km SSW of the Victoria River roadhouse, 17 Sep 1996, *Cowie and Mangion 7325* (BRI, CANB, DNA *n.v.*, PERTH, QRS); *ditto*, c. 8 km SSW of the Victoria River roadhouse, 17 Sep 1996, *Cowie and Mangion 7321* (CANB, DNA *n.v.*); *ditto*, c. 6 km SSW of the Victoria River bridge, 17 Apr 1996, *Albrecht and Latz 7426* (CANB, DNA *n.v.*, MEL *n.v.*). The Albrecht and Latz collection probably is from the same location as *Cowie and Mangion 7325* (Cowie, personal communication).

Distribution and Ecology

Known only from the Victoria River Gorge and associated gorges in the Northern Territory (Fig. 2). Recorded on herbarium labels as occurring in crevices on a south facing sandstone cliff; below cliffs at the base and to the side of a seepage area at the head of a small valley; at the top of a scree slope near the base of an ephemeral waterfall in an area with perennial seepage; in crevices in a gorge cliff face with the area a waterfall in the wet season. Associated plants include *Baeckea*, *Livistona*, *Ficus*, *Eucalyptus* and ferns. In summary, *M. triumphalis* grows in sites with perennial seepage near the base of ephemeral waterfalls, either at the top of scree slopes or in crevices near the base of the cliff (Cowie, personal communication).

Notes

In the possession of lanuginulose hairs and longish, greenish stamens, *M. triumphalis* is very similar to *M. nervosa* (Lindl.) Cheel and *M. fluviatilis* Barlow. Inter alia, it differs from these two species in bark and indumentum features as given below. The flowers consistently are closely clustered whereas in *M. nervosa* and *M. fluviatilis* they usually are dispersed on the inflorescence axis. Additionally the new species has a very different ecology; *M. nervosa* and *M. fluviatilis* occur in woodlands and riverine situations, respectively.

Melaleuca triumphalis can be distinguished from *M. nervosa* and *M. fluviatilis* by the following key:

1. Trunk bark subpapery (tight, fissured); branchlet indumentum shaggy (the pubescent hairs very long); petals 5.1–7 mm long, hairy with the hairs distributed moderately densely and evenly all over or along the central region*M. triumphalis*
1. Trunk bark papery; branchlet indumentum never shaggy (pubescent hairs, if present, very short); petals 1.5–3.5 mm long, usually glabrous or sometimes with hairs abaxially along the central region.....*M. nervosa*, *M. fluviatilis*

This species is remarkable for its shaggy indumentum; this is especially obvious on the branchlets. The shrubby habit, together with the silvery leaves and greenish flowers, renders the plant a very suitable subject for trial as an ornamental shrub or

small tree in northern Australia and seed has been collected with this view in mind (Cowie, personal communication).

The specific epithet is derived from the Latin *triumphalis* (pertaining to a triumph, triumphal) and reflects both the results achieved by Mueller while a member of the Gregory expedition and the collection of this previously unknown species on the recent expedition commemorating Mueller's work.

Acknowledgments

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Reference

Walsh, N. (1996). Gregory National Park: the 1996 Mueller Commemorative Expedition. Australian Systematic Botany Society Newsletter **89**, 40–41.



Fig. 1. *Melaleuca triumphalis*. **a** habit; **b** flower with one petal removed; **c** detail of leaf indumentum; **d** fruit (a,c from Cowie and Mangion 7327; b from Cowie and Mangion 7325; d from Albrecht and Latz 7426). Scale bars represent 1 cm.

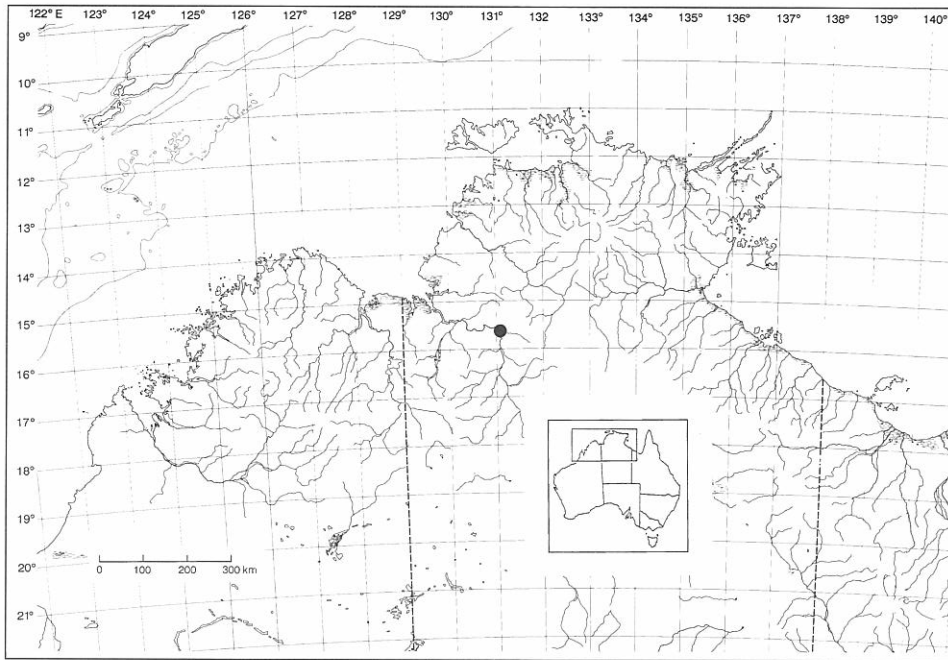


Fig 2. Distribution of *Melaleuca triumphalis*.