

The correct name for the weeping form of the Indian mast tree (*Polyalthia longifolia*, *Annonaceae*)

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Polyalthia longifolia is a tree species native to Sri Lanka. It has a long history of cultivation in Sri Lanka and India and was originally described in 1782 as *Uvaria longifolia* by Sonnerat from specimens growing in Pondicherry in southern India.

Polyalthia longifolia is typically monopodial with a straight and erect main trunk and spreading side branches forming a relatively narrow crown. However, there is a form of the tree in cultivation with a weeping habit with short down-swept branches producing a very narrow, erect crown. It is commonly grown in gardens, parks and along roads in the Asian tropics and has found favour with landscape architects throughout the tropics. The plant is often referred to as *Polyalthia longifolia* var. *pendula*, but, believing that this taxon had never been validly described under the *International Code of Botanical Nomenclature* (McNeill *et al.*, 2006), I described the weeping form as a cultivar (Turner, 2000), choosing the cultivar name Temple Pillar. However, after further research through the literature it is now possible to make the case for 'Pendula' being the correct name for this entity. While names derived from Latin, such as *Pendula*, cannot generally be used for cultivated plants according to the *International Code for the Nomenclature of Cultivated Plants* (Brickell *et al.*, 2009), they can if based on epithets first published before 1 January 1959 (Art. 21.6). The earliest published reference to the weeping form of *Polyalthia longifolia* found so far is in *Complete Gardening in India* by K. S. Gopalswamiengar (Gopalswamiengar, 1935). In a section on ornamental foliage trees, a description of *Polyalthia longifolia* is followed by the sentence: "The weeping variety of the above, Var. *pendula* is more ornamental." Gopalswamiengar's diagnosis of the variety in the single word "weeping" is debatable in its descriptive sufficiency but its rendering in English rather than Latin just passes the

deadline (1 January 1935) for valid publication under ICBN. *Complete Gardening in India* is largely compiled from Gopalaswamiengar's gardening column from *The Hindu* newspaper, so it is possible that var. *pendula* appeared in print before 1935. Unfortunately I have not been able to obtain access to any issues of the newspaper from the early 1930s. *Polyalthia longifolia* var. *pendula* is also referred to by Benthall (1946) with a more detailed description than provided by Gopalaswamiengar.

In his *Flowering Trees in India* published in 1957, M. S. Randhawa (p. 91) wrote: "An avenue of *Polyalthia pendula* appears very attractive along an ascending road. There is a beautiful avenue of this pendulous variety of asokan in 'Kamla Retreat', the house of Padampat Singhania at Kanpur." On page 171, asokan is given as one of the vernacular names of *Polyalthia longifolia*. Thus there can be no doubt that Randhawa was using *Polyalthia pendula* to refer to the weeping form of *Polyalthia longifolia*. *Polyalthia pendula* is here, certainly invalid as a species under ICBN (inadequate description and omission of Latin diagnosis).

Clearly the epithet "pendula" was applied to the weeping form of *Polyalthia longifolia* by those involved with horticulture in India well before 1959. Has the epithet been established as a cultivar name? After some searching, aided in part by the Internet, I have found an example where it has. There is a description of a visit by a group from the International Dendrology Society to Sri Lanka written by Dr Heino Heine in the Society's Yearbook (Heine, 1997), which includes a reference to *Polyalthia longifolia* 'Pendula' seen in the Royal Botanic Gardens, Peradeniya:

Another, very frequently seen ornamental tree is the Indian maraillupai, *Polyalthia longifolia* (Annonaceae). Practically all of them belong to the cultivar 'Pendula' (see p. 74) and have a very regular fastigiate columnar habit, due to extensive clonal propagation. These trees have a most decorative, pendulous foliage, showing constantly the phenomenon of the "flushing" of the new shoots with coppery brownish young leaves. In the gardens here is a fine old "normal" specimen as well, with spreading branches, and hardly "pendulous" leaves.

The reference to page 74 concerns a photograph of a row of *Polyalthia longifolia* 'Pendula' in front of the Department of Agriculture building in the Botanic Gardens. These trees are mostly still alive at the time of writing (A. M. A. S. Attanayake, pers. comm.). Heine's description and accompanying photograph are perfectly adequate for diagnosing the cultivar, though technically "fastigiata" is misapplied as the side branches are pendent not almost erect as in a truly fastigiata tree. Heine's publication was certainly before my own, and therefore 'Pendula' has priority over 'Temple Pillar' and should be used. I propose Heine's published photograph as the nomenclatural standard for the variety (cf. *ICNCP* Div. V Note 6) as it is difficult to capture the diagnostic branching pattern of the tree on a herbarium sheet.

Given that *Polyalthia longifolia* was originally described from cultivation could the type specimen have been of the weeping habit (which would have major nomenclatural repercussions)? I do not believe it is possible to tell the forms apart from specimens of foliage (reproductive or not) – they differ solely in the branching habit. However, despite some authors claiming that the weeping form is an ancient cultivar, none of the floras or horticultural works from the nineteenth or early twentieth centuries that I have consulted makes any mention of the striking columnar variety. It seems to me likely that it has a more recent origin than perhaps expected from its common use in the grounds of historic temples.

Nomenclature

Polyalthia longifolia (Sonn.) Thw., *Enumeratio plantarum zeylanicae* 398 (1864).

Basionym: *Uvaria longifolia* Sonn., *Voyage aux Indes orientales et à la Chine* 2: 233, t. 131 (1782); *Voyage aux Indes orientales et à la Chine* (octavo ed.) 3: 260 (1782).

= *Uvaria altissima* J. König ex Pennant, *Outlines of the Globe* 1: 83, t. 5 (1798), *nom. superfl.*

= *Unona longifolia* (Sonn.) Dunal, *Monographie de la famille des Anonacées* 109 (1817)

= *Guatteria longifolia* (Sonn.) Wall., *A numerical list of dried plants in the East India Company's Museum* no. 6442 (1832).

Type: Sonnerat's plate (lectotype, selected by Huber (1985)).

'**Pendula**' K. S. Gopaldaswamiengar, *Complete gardening in India*: 229 (1935), as var. *pendula*, *nom. inval.* ICBN Art. 36.1.

Nomenclatural standard: Photograph in H. Heine, *International Dendrology Society Yearbook 1996*: 74 (photo on right) (1997).

= *Polyalthia pendula* M. S. Randhawa, *Flowering trees in India* 91 (1957), *nom. inval.* ICBN Art. 36.1, *non Polyalthia pendula* Capuron ex G. E. Schatz & Le Thomas (1990).

= 'Temple Pillar' I. M. Turner, *Gardenwise* 15: 9 (2000).

Nomenclatural standard: Photograph in I. M. Turner, *Gardenwise* 15: 9 (2000).

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