

NOTES ON THE NOMENCLATURE AND TAXONOMY OF CERTAIN
SPECIES OF *MELALEUCA*.

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THE STATUS OF *MELALEUCA FASCICULIFLORA* Benth.

In working out a plant from South Australia, which is apparently *Melaleuca fasciculiflora* Benth. (1866), certain difficulties arose in connection with the spelling of specific names and citation of papers published by Turczaninow, on the Myrtaceæ collected by Drummond in Australia. As no copy of Turczaninow's paper was available in any of our libraries I wrote to Sir Arthur Hill, Director of the Royal Botanic Gardens, Kew, England, who very kindly submitted my queries to Mr. T. A. Sprague for report, with the result that I am now able to clear up some of the discrepancies between the citations given in Mueller's "Fragmenta" and those given in "Index Kewensis". The following notes deal with certain species of *Melaleuca*, of which there is an abundant collection of herbarium material in the National Herbarium of Sydney, collected by various collectors in different parts of South and Western Australia. Examination of the material of *M. fasciculiflora* Benth. leads to the conclusion that Benth. included three distinct species under that name, viz. *M. bracteosa* Turcz., *M. brevifolia* Turcz., and *M. decora* (Salisbury) Britten, *q.v.*

Melaleuca bracteosa Turcz. (1822), *vide* "Index Kewensis".

In Mueller's "Fragmenta", VIII (1872-1874), 184, the spelling is given as "*bracteata*", but according to Mr. Sprague, who has kindly looked up the original work of Turczaninow at my request, the spelling and citation given in "Index Kewensis" are correct. This is particularly important since there is a *M. bracteata* F.v.M. in "Fragmenta", I (1858-1859), 15, which is united with *M. genistifolia* Sm. by Benth. (1866), but since regarded as a valid species by Baker and Smith (1910), with which I am entirely in accord. Turczaninow's paper, "Myrtaceæ Xerocarpicæ, etc.", was originally published in *Bull. Phys. Math. Acad. Sc. St. Petersbourg*, X, Col. 321-346 (1852), as stated in the Royal Society's *Catalogue of Scientific Papers*, Vol. VI, 66, No. 17. There are two columns per page, and the columns, not the pages, are numbered. Turczaninow's paper was reprinted in *Melanges Biologiques Bull. Acad. Petersb.*, I, 394-428, and it was this reprint that was cited by Mueller in his "Fragmenta", VIII, 182 (1872-1874), hence the discrepancy in the pagination. Alike in the Bulletin and the Melanges, the name of the species appeared as *Melaleuca bracteosa*, not *bracteata* as cited by Mueller.

Melaleuca brevifolia Turcz.

Syn. *M. fasciculiflora* Benth. in part.

Leaves alternate, crowded, 4-6 mm. long, distinctly petiolate (the petiole although small is more clearly defined than in Drummond's No. 159, which Benth. included with *M. fasciculiflora*—which is *M. bracteosa* Turczaninow), somewhat terete in general appearance but slightly flattened on the upper surface, sub-acute at the apex, or scarcely obtuse. Flowers sessile in lateral

head-like clusters, frequently coalescing so as to appear to be in lateral spikes. Petals very deciduous, jagged along the margin. Stamens in bundles, the claw slightly shorter than the petals. Capsules 3–5 mm. diam., the rim comparatively thick, valves somewhat sunken. Drummond's No. 164 quoted by Bentham under *M. fasciculiflora* belongs to this species, as also the Gordon River specimen collected by Maxwell.

This species is quite distinct from *M. brevifolia* of Mueller, which is quoted as a synonym of *M. microphylla* by Bentham.

Melaleuca decora (Salisb.) Britten (1901).

Syn. *Metrosideros decora* Salisb. *Melaleuca genistifolia* Sm.

The original specimens described by Salisbury (1796) were collected by David Burton in the Port Jackson district. It was placed in the genus *Metrosideros* but afterwards transferred to *Melaleuca* by Smith (1797), who evidently had not seen Salisbury's specimens, hence the specific name "*decora*", which has a prior claim, was not taken up. According to Bentham (1866), who records it under the name *M. genistifolia*, it has a very wide distribution in Australia, but, as he included *M. lanceolata* Otto (1822) and *M. bracteata* Mueller (1858–59) as synonyms, which are now recognised as distinct species, the localities mentioned by Bentham for *M. genistifolia* (= *decora*) and copied by various botanists may have to be considerably reduced. Specimens in the National Herbarium of Sydney are represented from numerous localities along the coast from Sydney to Nowra in the south, and as far north as Newcastle, extending to Bullahdelah, Stroud, in New South Wales, and Jimboomba and Sunnybank in Queensland. (Burton states that the plant was commonly known as "White Tea Tree". In Queensland it is called "Ironwood" or "Ridge Myrtle".

Melaleuca lanceolata Otto (1822).

Syn. *M. genistifolia* Baker and Smith (1910) non Smith (1797); *M. parviflora* Moore and Betche (1893); *M. parviflora* var. *latifolia* Maiden and Betche (1916).

This is a tall shrub or small tree from twenty to thirty feet tall with white papery bark and small flat acute lance-shaped leaves, usually about one-half to three-quarters of an inch long, and not revolute or tapering as in *M. decora* and *M. bracteata*. It has been confused with *M. parviflora* Lindley¹ (1839) and *M. decora*. It is quite common in the Gosford district, extending to the Crawford River near Bullahdelah and Wallace Island.

Melaleuca bracteata F.v.M. (1858–59).

The original specimens described by Mueller (1858–59) were collected at Moreton Bay in Queensland, and regarded as an intermediate species between *M. styphelioides* and *M. curvifolia*. Bentham linked it as a synonym under *M. decora* (syn. *M. genistifolia*), but as shown by Baker and Smith (1910), it is quite distinct. It is a small tree from twenty to forty feet tall, with a rough brown bark and somewhat umbrageous habit, usually found hugging the sides of creeks and rivers, very plentiful between the Gwydir and McIntyre Rivers in the Boggabri and Narrabri districts, extending to Bingarra and Warialda and thence to Lismore and as far north as Rockhampton in Queensland.

The specimens included under *M. genistifolia* by W. V. Fitzgerald (1918) and by Ewart and Davies (1917) from the Kimberleys in north-west Australia and Northern Territory respectively, as well as those from the Torrens River,

¹ See Cheel (1926), where *M. parviflora* of Lindley is treated as a glabrous form of *M. pubescens*.

Mueller (1856), and Ord River, Mueller (1880), are very probably sufficiently distinctive to be regarded as a variety or new species.

MELALEUCA NERVOSA (LINDL.) CHEEL N. COMB.

Syn. *Callistemon nervosus* Lindl. (1848).

This species was described by Lindley from specimens collected at Mitchell's Camp of 16th July, 1846, which is quite close to Mantua Downs on the Claude and Nogoia Rivers, south of Springsure, north Queensland. At p. 235 of Mitchell's work the following remarks are published: ". . . and we found a magnificent new crimson *Callistemon*, with its young flowers and leaves wrapped in wool". In a footnote of the same work a description in Latin by Lindley is published as follows: "ramis pallidis foliis ovatolanceolatis, quinque-nerviis mucronatis junioribus tomentosis, rachi calycibusque lanatis". It will be noted that no mention is made of the cohering of the filaments by Lindley, hence there has been much confusion concerning this species as to whether it should be placed in *Callistemon* or *Melaleuca*.

Callistemon nervosus Lindley is included by Bentham as a synonym under *M. Leucadendron* var. ? *parvifolia* (rock, Balmy Creek, in the interior of Queensland, Mitchell).

In a previous paper (Cheel, 1917, p. 298) I included *M. Crosslandiana* W.V.Fitzg. as a form under *M. leucadendron* var. *coriacea*, and stated that it differed only "in the flowers being crimson", whereas in var. *coriacea* they were greenish-yellow. Since the publication of the above, a communication received from Mr. Fitzgerald contained the following remarks: "I do not agree with Mr. Cheel in assigning *M. Crosslandiana* to *M. leucadendron*. Besides the crimson filaments mentioned by him, there are other details, including the rough, fibrous, persistent grey bark and hard reddish-brown timber of the former. It is certainly not a "Paper-bark". In view of this further information, together with a fuller description published by Fitzgerald (1918)—which I had not seen previously, I am now of the opinion that *M. Crosslandiana* W. V. Fitzgerald should be included as a synonym under *M. nervosa* (Lindl.) Cheel.

On the subject of the generic distinctions between the two genera *Callistemon* and *Melaleuca* the remarks of Mueller (1863-64), which are in Latin, and may be translated as follows, are of interest: "The genus *Callistemon* is in my opinion, entirely artificial, not safely distinguished from *Melaleuca* by a single character and better united with it. Even the species which is the type of the genus *Melaleuca* i.e. *M. Leucadendron*, which abounds from the vicinity of Port Jackson through East and North Australia has a doubtful position between the *Melaleucas* with fascicled stamens and the true *Callistemon* as originally observed by Brown. Thus *Callistemon nervosus* Lindley belongs to *Melaleuca Leucadendron* var. *minor*. This species varies extremely in habit; in moist valleys and on river banks, occasionally subject to inundation, the tall arborescent form is found; in arid, stony and sandy tracts the low tree or shrubby form is found. The filaments appear sometimes whitish-yellow and sometimes citron-yellow, the height is also very variable; the staminal bundles adhere occasionally at the base in a ring as happens also in *Callistemon lanceolatus*, and often they are all free; the filaments of the staminal bundles are sometimes only very slightly united and sometimes considerably. The bark of several species is paper-like and flakey."

Notwithstanding the remarks of Mueller, Bentham (1866, p. 124) regarded the genus *Melaleuca* as a "well-defined group readily distinguished from *Callistemon*, by the 5-adelphous stamens . . . The only exceptions are one or two species in which the claws of the staminal bundles are so short as to connect the genus with *Callistemon* of which one species *C. speciosus* has the stamens almost

or quite 5-adelphous, but single transitional species appear scarcely to justify the union of very large groups otherwise well characterised." The species *C. speciosus* referred to by Bentham was originally described by R. Brown (1812) as *Melaleuca paludosa* (and is retained in the genus *Callistemon*, as the venation of the leaves is characteristic of all the species of the latter). The species *Callistemon lanceolatus* mentioned by Mueller above was also noted by Bentham (1866) as having the "stamens united at the base"; a compound description was drawn up for both species by Bentham. Britten (1901, p. 37) published a Latin description copied from Solander's Mss. together with a drawing (Fig. 109) of a plant collected by Banks and Solander in 1770, on the Endeavour River, which he erroneously classified as *Callistemon rigidus*. This is *Metrosideros viminalis* Gaertner, I, 171 (1788), tab. 34, Fig. 4, which includes *C. lanceolatus* Mueller and Bentham in part, mentioned as having been collected by Fitzalan on the Pine River in Queensland.²

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² See Cheel (1917) in Maiden's *F. Fl.*, VII, 15, for further particulars concerning these two species under *C. viminalis* (Sol.) Cheel.



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