

Lectotypification of the name *Lomandra longifolia* Labill. (Asparagaceae: Lomandroideae)

Jian WANG



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Lectotypification of the name *Lomandra longifolia* Labill. (Asparagaceae: Lomandroideae)

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KEY WORDS
Australia,
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lectotypification.

ABSTRACT

The lectotype (FI012018, Fig. 1) is designated for the name *Lomandra longifolia* Labill., the type species of the genus *Lomandra* Labill. (Asparagaceae: Lomandroideae). This action is proved necessary as only general locality (Tasmania) and illustration were cited by Labillardière in the protologue.

RÉSUMÉ

Lectotypification du nom Lomandra longifolia Labill. (Asparagaceae: Lomandroideae).

MOTS CLÉS
Australie,
Labillardière,
lectotypification.

Le lectotype (FI012018, Fig. 1) est désigné pour le nom *Lomandra longifolia* Labill., l'espèce type du genre *Lomandra* Labill. (Asparagaceae: Lomandroideae). Cette action s'est avérée nécessaire car Labillardière n'a cité que la localité générale (Tasmanie) et l'illustration dans le protologue.

INTRODUCTION

The genus *Lomandra* Labill. was established in 1805 with *L. longifolia* Labill., one of the two original species, recorded “in capite Van-Diemen” (Tasmania) of Australia (Labillardière 1805). When the species name and description were published, no specimen gatherings were cited but an illustration with an analysis of floral details was included (Labillardière 1805: t. 119). According to McNeill (2014), if this illustration had been the only material, it would have been the holotype. In fact, there is no holotype for the species name, since Labillardière just cited a general locality (Tasmania) and there are multiple specimens extant and held across several herbaria, plus the illustration, constituting original material.

Unfortunately, these specimens, representing both male and female plants, were unavailable over a long period. Lee (1962) erred in concluding that there was a holotype designated by the naming author extant elsewhere and stated: “HOLOTYPE: Not seen”. As a result, only an “isotype” from P was cited in the *Flora of Australia* species treatment by Lee & Macfarlane (1986), who nonetheless designated *L. longifolia* as the type species of the genus *Lomandra* Labill. Since without a holotype there can be no isotypes, the specimen cited by Lee & Macfarlane (1986) was in fact a syntype.

Given its status as the type species of the genus *Lomandra*, lectotypification of *L. longifolia* Labill. is important for maintaining nomenclatural stability and fixing the application of the names of both species and genus (Turland *et al.* 2018). A suitable lectotype is thus designated below.

TAXONOMY

Family ASPARAGACEAE Juss.

Subfamily LOMANDROIDEAE Thorne & Reveal

Genus *Lomandra* Labill.

Lomandra longifolia Labill.

Novae Hollandiae Plantarum 1: 92, t. 119 (Labillardière 1805). — *Xerotes longifolia* (Labill.) R.Br., *Prodromus Florae Novae Hollandiae et Insulae van-Diemen*: 262 (Brown 1810).

TYPE MATERIAL. — Tasmania • In capite Van-Diemen; 21.IV.1792-27.II.1793; Labillardière J. J. H. s.n.; lecto-, FI[FI012018!], Fig. 1), here designated; isolecto-, FI[FI012019!], BM[BM000990572!], GH[GH00029949!], 2 fruiting inflorescences and 3 separated leaves on the left], MO[MO-277683!], P[P00675169, P01843952, P01843953!].

TYPIIFICATION

It is now evident that Labillardière collections of *Lomandra longifolia* are held by BM, FI, GH, MO and P. Of all these collections, FI012018 was the only one with five labels, bearing a detailed handwritten description that matches the species description in the protologue by Labillardière (1805). The plant in the middle of image (Fig. 1), with not only mature fruits but also roots, is of satisfactory quality to be chosen as

the lectotype. The annotation attached in the middle lower part of the same image (Fig. 1) translates to “*Lomandra* cultivated in a [botanic] garden under the name *Longifolia*”, indicating the fruits and seeds available in the envelope. The handwriting was probably by Labillardière and was added at a later stage.

Labillardière visited Tasmania on two occasions: from the 21st April to the 28th May 1792 and from the 21st January to the 27th February 1793 (Kantvilas 2007). He collected c. 5 000 specimens comprising 30 genera, about 100 new species during the first visit and similar numbers achieved during the second visit. Because the two periods were close, there were problems discerning which species were collected during its sojourn (Duyker 2003). Therefore, it is almost impossible to figure out the exact collection date for many species including *L. longifolia*.

The specimen stored at BR (BR0000013344702) with a pencil annotation as a “possible isotypus” is not considered to be an isolectotype, mainly because it may not have been collected by Labillardière. As a part of the collection of Martin Martens, a Belgian chemist and botanist, this specimen was donated to BR by his great grandchild Pierre Martens. It is unknown how this specimen became part of the collection of Martin Martens. However, the collection of Martin Martens was probably established after he was appointed the director of Louvain Botanical Garden in 1848 (Wisniak 2019), 43 years after *Lomandra longifolia* was published. The annotation of both “*Xerotes longifolia* R.Br.” and “*Lomandra longifolia* Labill.” on the possible original identification slip in the lower left side does not appear to match Labillardière’s handwriting (<https://www.ville-ge.ch/musinfo/bd/cjb/auxilium/>). It is unlikely that the name published by Brown (1810) would have been included unless the material was collected and/or distributed after that date.

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REFERENCES

- BROWN R. 1810. — *Xerotes* R.Br., in *Prodromus Florae Novae Hollandiae et Insulae van-Diemen*: 259-263. <https://doi.org/10.5962/bhl.title.3678>
- DUYKER E. 2003. — *Citizen Labillardière. A Naturalist's Life in Revolution and Exploration (1755-1834)*. The Miegunyah Press, Melbourne, 383 p.

- KANTVILAS G. 2007. — Labillardière and the beginnings of botanical exploration in Tasmania, in MULVANEY J. & TYNDALE-BISCOE H. (eds), *Rediscovering Recherche Bay*. Academy of Social Sciences, Canberra: 35-43.
- LABILLARDIÈRE J. J. H. 1805. — *Novae Hollandiae Plantarum Specimen*. Vol. 1. Parisiis, Ex typographia Dominæ Huzard: 92, tab. 119. <https://doi.org/10.5962/bhl.title.62462>
- LEE A. T. 1962. — Notes on *Lomandra* in New South Wales. *Contributions from the New South Wales National Herbarium* 3 (3): 151-164.
- LEE A. T. & MACFARLANE T. D. 1986. — *Lomandra*, in GEORGE A. S. (ed.), *Flora of Australia*. Vol. 46. Australian Government Publishing Service, Canberra: 100-141.
- MCNEILL J. 2014. — Holotype specimens and type citations: General issues. *Taxon* 63 (5): 1112-1113. <https://doi.org/10.12705/635.7>
- TURLAND N. J., WIERSEMA J. H., BARRIE F. R., GREUTER W., HAWKSWORTH D. L., HERENDEEN P. S., KNAPP S., KUSBER W.-H., LI D.-Z., MARHOLD K., MAY T. W., MCNEILL J., MONRO A. M., PRADO J., PRICE M. J. & SMITH G. F. (eds). 2018. — International Code of Nomenclature for algae, fungi and plants (Shenzhen Code) adopted by the Nineteenth International Botanical Congress Shenzhen, China, July 2017. *Regnum Vegetabile* 1–254. Glashütten: Koeltz Botanical Books. <https://doi.org/10.12705/Code.2018>
- WISNIAK J. 2019. — Martin Martens Botany, galvanism, and inorganic chemistry. *Revista CENIC, Ciencias Químicas* 50 (1): 123-137. <https://www.redalyc.org/articulo.oa?id=181662291012>

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