This article was downloaded by: [University of Cambridge]
On: 01 January 2015, At: 17:37
Publisher: Taylor & Francis
Informa Ltd Registered in England and Wales Registered Number:
1072954 Registered office: Mortimer House, 37-41 Mortimer Street,
London W1T 3JH, UK

Transactions of the Botanical Society of Edinburgh

Publication details, including instructions for authors and subscription information:

<http://www.tandfonline.com/loi/tped18>

Notes on some of the larger Palms in the Palm-Stove of the Royal Botanic Garden, Edinburgh

Robert Lindsay Curator

Published online: 01 Dec 2010.

To cite this article: Robert Lindsay Curator (1886) Notes on some of the larger Palms in the Palm-Stove of the Royal Botanic Garden, Edinburgh , Transactions of the Botanical Society of Edinburgh, 16:1-4, 197-201, DOI: [10.1080/03746608609468260](https://doi.org/10.1080/03746608609468260)

To link to this article: <http://dx.doi.org/10.1080/03746608609468260>

PLEASE SCROLL DOWN FOR ARTICLE

Taylor & Francis makes every effort to ensure the accuracy of all the information (the "Content") contained in the publications on our platform. However, Taylor & Francis, our agents, and our licensors make no representations or warranties whatsoever as to the accuracy, completeness, or suitability for any purpose of the Content. Any opinions and views expressed in this publication are the opinions and views of the authors, and are not the views of or endorsed by Taylor & Francis. The accuracy of the Content should not be relied upon and should be independently verified with primary sources of information. Taylor and Francis shall not be liable for any losses, actions, claims, proceedings, demands, costs, expenses, damages, and other liabilities whatsoever or howsoever caused arising directly or indirectly in connection with, in relation to or arising out of the use of the Content.

This article may be used for research, teaching, and private study purposes. Any substantial or systematic reproduction, redistribution, reselling, loan, sub-licensing, systematic supply, or distribution in any form to anyone is expressly forbidden. Terms & Conditions of access and use can be found at <http://www.tandfonline.com/page/terms-and-conditions>

curious plant receives its name from the stem at the base swelling into the shape of a bottle. I have the promise of one of these Australian Bottles for Arran.

The Grass Tree (*Xanthorrhæa arborea*).—This very remarkable plant (see Balfour's *Class-Book of Botany*, pp. 92 and 930) is very rare in this country, though well known in the plains of Australia. Through the kindness of a friend, its leaves are now waving in front of his house, enjoying the great heat of our present weather (August 11). Soon I hope to see them waving in a favourable situation in Arran. I might mention that I saw, in the possession of James Wilson, Esq., Kilmarnock, a walking-stick of Grass-tree wood. It had been shown at the Dunedin Industrial Exhibition.

Miscellaneous Plants, not Australian.—Camellia (blooms freely), Myrtle (blooms abundantly), *Buddleia globosa* (in bloom, very beautiful); *Desfontainea spinosa*, 7 feet 6 inches high, and covered with flowers; *Photinia serrulata*, *Elæagnus reflexa variegata*, *Euonymus latifolius aureus*, 4 feet 9 inches high; *Coccoloba vespertilionis*; *Platanus orientalis*, 3 feet 8 inches in girth; *Schizostylis coccinea*, blooms most abundantly every year; *Cunninghamia sinensis* (Chinese broad-leaved Fir), planted about 1858 by the late Mr Townley.

Notes on some of the larger Palms in the Palm-Stove of the Royal Botanic Garden, Edinburgh. By ROBERT LINDSAY, Curator.

(Read January 8, 1885.)

On the completion of the new Palm-house at the Royal Botanic Garden in 1858, the late Professor Balfour gave, in our *Transactions* (vol. vi. p. 128), a detailed account of this fine structure, including a description of some of the larger Palms then growing, and their respective heights. The late Mr M'Nab also communicated to the Society from time to time much information regarding them. The object at present is to record the progress that has been made during the last twenty-seven years by those plants which still exist, and also to give some information regarding younger plants, several of which give indications of erelong outstripping the older ones. Of the old Palms

the largest is a fine specimen of *Livistona chinensis*. The height of this tree in 1858 was 42 feet ; in 1875, 45 feet ; and it is now 49 feet high, showing an increase of 7 feet in twenty-seven years. The circumference of the stem at the base was 6 feet in 1875 ; it is now 6 feet 3 inches. It has a clear upright stem, 33 feet in height up to where the lowermost leaf is given off, and is in vigorous health for so old a plant. Of *Seaforthia elegans* there are two plants, now nearly equal in every respect. In 1858 the taller one measured 26 feet in height ; both plants are now 47 feet 6 inches in height (an increase of 21 feet 6 inches in twenty-seven years). They have clear stems 30 feet high, and their circumference at the base is 3 feet 3 inches. For the latter measurements there exist no data for comparison. There are eleven fully-developed leaves on each plant, averaging 14 feet in length. These two fine trees are in vigorous health, and are likely to go on improving for years to come. *Corypha australis* in 1858 measured 23 feet in height ; it is now 41 feet. It has a clear stem of 20 feet 4 inches, and measures 3 feet 3 inches at the base. *Phoenix reclinata* in 1858 was 20 feet high ; it is now 30 feet 4 inches, with a clear stem of 14 feet, the circumference at the base being 1 foot 7 inches. The leaves are 11 feet 6 inches in length, mostly curved downwards, and forming a fine canopy of foliage. The most remarkable of the older Palms is the well-known example of *Sabal umbraculifera*, the Bull Palm of the West Indies. This grand tree was 30 feet high in 1858, and it is now 36 feet 4 inches. In 1858 the circumference of the stem at the base was said to be 5 feet 6 inches ; ten years later 5 feet 4 inches is given ; it is now 5 feet 3 inches ; it seems difficult to explain how this has happened. In 1874 it had a clear stem of 14 feet, and the circumference below where the lowermost leaf is given off was 3 feet. It has now 17 feet 4 inches of a clear stem, and the circumference at the top is 3 feet 1 inch. The greatest difference occurs in the length of the leaves, which was then 16 feet, the leaf-stalk being 10 feet, and the blade 6 feet long by 5 feet 6 inches broad ; now the leaves measure 12 feet 6 inches, viz., 7 feet of leafstalk, and 5 feet 6 inches of blade ; there is an increase, however, in the breadth, which is now 6 feet

8 inches. The smaller size of the leaves made now may probably be an indication of diminishing vigour, owing to the great age of the tree; otherwise it appears to be perfectly healthy, and is developing numerous young leaves and abundance of flowers and fruit. The latter is produced in such quantity that it requires to be cut off occasionally to prevent the tree from exhausting itself. Ten years ago it was moved to its present position in the centre of what was formerly the old Palm-house, and was grown until last spring in a wooden box 7 feet 10 inches square by 5 feet deep, and rested on the floor of the house, which formed the bottom. Owing to the heat and moisture the box had become very much decayed, showing the roots of the plant protruding in several places; it therefore required to be furnished with a new box. As the tree was resting on the floor, and in the best possible position, in the centre of the house, where it gets the light all round, no advantage was to be gained by moving it. Instead of the usual wooden tub, it was thought advisable to have a permanent structure built round it. When the square boards were removed to allow of this being done, a dense mass of roots was disclosed. The corners were carefully forked out, and any old soil that could be got at taken away. The whole ball was then covered with mats, and soaked with water. A stone tub or wall 34 feet 6 inches in circumference, 18 inches thick at bottom, tapering off to 12 inches at top, and 5 feet deep, was then built round it; openings were left at the bottom for drainage, and spaces round the sides for Ferns and other plants to grow in when the building was finished, and additional drainage material and fresh soil were inserted; Ferns, *Ficus stipularis*, and other plants, were planted round the sides and margin so as to cover the stonework. Being circular it takes up less room than formerly, and has also a much better appearance. Regarding the age of this tree, the late Mr M'Nab gave some interesting facts in a communication to this Society in 1874.* He says:—"This tree cannot be less than sixty years old. It was removed from the stove of the old Botanic Garden at Leith Walk, in 1822, and was kept in a lean-to house in the present garden

* *Trans. Bot. Soc.*, vol. xii. p. 221.

for thirteen years. This house being only 18 feet high at back and 7 feet in front, it was greatly hampered." Assuming the Palm to have been only 16 feet high when removed from this lean-to house in 1835, it has thus made 20 feet 4 inches in fifty years, to attain its present height of 36 feet 4 inches. This is equal to an increase of nearly 5 inches per annum. If the same ratio be applied to the 16 feet formed previous to 1835, that would give the age of our tree as being over eighty-eight years. We know, however, that while young this species of *Sabal* makes very slow progress. For the first eight or ten years it produces long, simple, undivided leaves, after which it assumes the more or less divided palmate leaves characteristic of the adult plant. The seeds are consequently not in demand by nurserymen and others who require plants that will have a showy appearance quickly. Many species of Palms, *Livistona*, *Seaforthia*, *Chamædorea*, and others, assume their characteristic adult foliage, though in miniature, in three to four years from the time of sowing the seed, and then make useful plants for decorative purposes, whereas *Sabal umbraculifera* requires from sixteen to twenty years to become in any way effective.

A seedling from our Bull Palm, raised certainly not less than eighteen years ago, is now 6 feet high, measured to the tip of the leaf, and has 7 inches of stem. This is the largest of our young plants, and has thus increased at the rate of 4 inches per annum. Assuming that the old plant increased at the same rate while forming its first 6 feet of growth, and allowing the remaining 10 feet to have increased at the same rate which the plant has made during the last fifty years, viz., 5 inches per annum, this would give ninety-two years as the lowest approximate age of our tree.

Regarding some of the younger Palms which have not been measured hitherto, the largest is a fine plant of *Euterpe edulis*. It is now 47 feet 6 inches in height. It has a clear stem of 34 feet 9 inches, and the circumference at the base is 1 foot 10½ inches. This plant has made very rapid progress. It was removed from the east range of houses fifteen years ago, and was from 12 to 13 feet high at that time. It was then growing in an earthenware pot 16 inches wide, and is now in a tub 5 feet wide, by 3 feet 10 inches deep.

Cocos plumosa is 44 feet 9 inches high, and has 30 feet of a clear stem. The circumference at the base is 4 feet 8 inches, and it is about thirty years of age.

Caryota excelsa measures 37 feet 7 inches in height. It has a clear stem of 18 feet, and the circumference at the base is 3 feet 1 inch.

A young vigorous plant of *Cocos Romanzoffiana* is 34 feet 4 inches high, and it has a clear stem of 22 feet 8 inches, the circumference at the base being 3 feet 10 inches. This plant was received from the nurseries of Louis van Houtte, at Ghent, in 1865, and is now about twenty-six years old. These large Palms, with the exception of *Sabal umbraculifera*, already mentioned, are all growing in round tubs, made of oak, and placed on rollers. The principal advantage of this system of having the plants in tubs, instead of their being planted out in the ground of the house, is the comparative ease by which they may be removed to other parts of the house, when they become crowded. Five years ago most of the larger plants were re-tubbed and arranged. Several of them have already become so crowded that rearrangement will be again necessary. Another important advantage is, that we are thus enabled, by occasionally turning the plants round, to assist them materially in keeping their stems upright. In certain portions of the house, when they remain too long in one situation, the leaves become drawn to the position of most light, which ultimately causes their stems to become bent.

On the Occurrence of Carex salina, Wahlbg., β Kattagatensis, Fries, in Scotland. By ARTHUR W. BENNETT, F.L.S., Croydon.

(Read February 12, 1885.)

In placing on record the discovery of this interesting addition to the Scotch flora, it may be well to state how it was made, as showing how easy it is to pass over a "good find." In August 1883, Mr Grant sent me a specimen from Caithness, labelled "*C. riparia*?" At this time of the year one is botanically busy, and I, merely glancing at the plant and seeing the aristate glumes, wrote "*C. paludosa* v. *Kochiana*." So it remained until the early part of last December; but