

[See "Victorian Naturalist"
44:65 (1927) for
pertinent remarks by Sir
W. J. Hooker on this report.]

1853.

VICTORIA.

BOTANICAL REPORT

OF

WILLIAM SWAINSON, ESQ., F.R.S.

LAI'D UPON THE COUNCIL TABLE, BY THE COLONIAL SECRETARY,

BY COMMAND OF

HIS EXCELLENCY THE LIEUTENANT GOVERNOR,

AND

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BOTANICAL REPORT, ETC.

Tirhatuan, 2nd October. 1853.

SIR,

I do myself the honor of laying before your Excellency, in the enclosed papers, the result of my botanical investigations in this province.

My chief attention, for the first five months after being located here, was directed to the family of *Eucalyptidæ*, or Gum Trees, among which I have discovered five distinct and well-marked genera, hitherto unknown as such, and apparently peculiar to Victoria; together with two other new genera, which occur also in the adjacent province.

Having had no accommodation for arranging the different species for comparison, &c., I have been necessitated to pack them up as fast as collected. It is quite impossible, therefore, for me to state, with any degree of certainty, the number of new species contained in the above genera. The packets of dried specimens, seeds, and capsules, will be seen to form a grand total of 1520. I am therefore disposed to think, that even if two-thirds may hereafter prove varieties only, there will yet remain more than 500 species, botanically distinct, only two or three of which I have found in New South Wales.

My researches, in respect to timber trees (from causes already well known), have been quite unsuccessful. The Red Gum (*Canthocarpus*, La.), and the straight Stringy Bark (*Tricanthus*, La.), are the only genera I have found whose wood is useful either for sawing or splitting. Specimens of the former (of an unknown species), have been procured and sent to the curator. The latter, of which there are numberless species, and a few of that of *Microcarpus*, or Native Box, are mostly used for fencing.

No reasonable doubt, however, can be entertained, that other parts of the province are more productive than this seems to be of valuable timber; and as the Colonial Botanist has had the requisite facilities at his disposal for ascertaining this fact during his extensive excursions, he will doubtless have succeeded far better than myself in developing the *economical* properties of the Victoria timber trees.

During the last year I have made various attempts and experiments to discover the principles of variation amongst the *Cassuarinæ*, vulgarly called He and She Oaks, but which in reality are the true *Pines* of Australia. It was only in June last, however, that this discovery was effected, and the conviction then arrived at that all the descriptions now existing were perfectly and essentially defective, and therefore *quite useless*; and that this and the genus *Exocarpus* are the most extraordinary groups of trees yet discovered in Australia. Without being further tedious (as I intend to bring this discovery before the public in another shape), I shall merely state to your Excellency, that the facts I am prepared to bring forward will establish the following propositions:—

1. That the Australian *Pines* belong more to a very remote or primeval *Flora* than to the present.
2. That they are slowly, but *surely, disappearing* from the face of the earth, and giving place to that comparatively recent order of vegetables which springs up in their stead. In this respect they offer a wonderful analogy to what we have ourselves witnessed in regard to the aboriginal tribes of Australia now giving place to those of the Caucasian race.

Now, of this remarkable tribe I have succeeded in determining more than *two hundred* species, all still growing within a very short distance of this place, besides having met with several others in different stages of decay, but which, from their bark and other indications, convince me were different from all those I have met with in a *growing* state. They have, in fact, died from excessive age, and have left no successors.

In the accompanying paper is a list of all the species found by me up to the end of the last month, and an abundance of cones of nearly all these have been collected and sent to the curator of the Botanic Garden. These your Excellency may now cause to be distributed and made known over the whole civilised world: and thus the Botanical Garden would probably receive from those established at the Cape, Rio de Janeiro, Calcutta, Ceylon, &c., &c., more rare and costly plants, in exchange, than would fill five such conservatories as that now building in Melbourne.

I should also suggest, that as most of the species are handsome, and many beautiful, growing trees, half an acre or so of ground be appropriated for a seed bed, by which a large number of young plants might be raised, ready to transplant into the projected shrubberies round the Government House, and to distribute among such private individuals as may wish to possess some few examples of these aborigines of the vegetable world.

To establish these discoveries upon the most solid basis, I have given up nearly a month of my engagement with the Tasmanian Government, for, without having laboured, I may say truly, both day and night, for the last three months, I could not have brought the matter to such an unquestionable issue. Without taking too much credit to myself, I feel satisfied that these discoveries will be regarded with as much surprise and almost incredulity amongst the botanists of Europe, as was that of gold in Australia among the geologists of Britain.

Of all those named in the list I possess elaborate descriptions, partly written with the trees before me, and finished before the cones had opened, and thus lost their specific characters. As there exists no scientific society or other medium for publishing an essay on these trees in Melbourne, I think the Royal Tasmanian Society (of which I am an honorary member) will gladly do so in their own transactions.

I have the honor to be,

Your Excellency's most obedient servant,

(Signed)

WILLIAM SWAINSON, F.R.S.

To His Excellency,
The Lieutenant Governor,
&c., &c.,
Melbourne.

SCHEDULE of the BOTANICAL COLLECTIONS made by MR. SWAINSON, for the Victoria Government, and delivered to the Curator of the Botanic Garden, Melbourne.

EUCALYPTIDÆ.

I. Dried Specimens of the Sprigs, in separate papers, the different genera (all new), or the principal divisions of the family, marked on each. These, altogether, amount to <i>five hundred and sixty-four</i> , and are arranged in four distinct series, as under :—		
1st Series. Marked with single numbers, and to which the drawings refer, in all ...	68	
2nd Series. Alphabetically numbered from A 1 to A 12	297	
3rd Series. The number enclosed in a circle, thus (1)	160	
4th Series. Species growing on the Government domain, the respective numbers corresponding to those marked on the trees	39	564
II. Species and Varieties contained in small paper bags, labelled as above, each containing Capsules, Leaves, and (where procurable) Seeds and Buds. These, together, amount to <i>nine hundred and thirty</i> , and are arranged in the above manner, viz. :—		
1st Series. With single numbers	33	
2nd Series. Alphabetical, A 1 to A 12	167	
3rd Series. In a circle (1)... ..	691	
4th Series. From the Government domain	39	930
III. Papers of Sprigs (and separate ones), of the Capsules, &c., collected on the Blue Mountains, New South Wales		26
Total of Species and Varieties		1520

PINES.

A series of large bags and tin cases, numbered and named, of all the species of <i>Cassuarina</i> examined and determined from 26th July to 29th September (a few separate packets of unexamined species)	201	
A series of large bags and tin cases of my new genus <i>Echinocarpus</i> , or Grass Pines, numbered and named	21	222
Grand Total of Species and Varieties		1732

DRAWINGS.

Two Portfolios, with Drawings and Dissections, natural size, and magnified, of different species and genera of *Eucalyptidæ*. Notes to the above.

(Signed)

WILLIAM SWAINSON, F.R.S.

30th September, 1853.

P.S. A small packet of seeds of the finest timber trees of Illawarra.

Having had no convenience for opening and sorting the New South Wales collections, that portion intended for the Victoria Government will be sent from Hobart Town, where every accommodation I require is promised.

(Signed)

W. S.

The drawings will be personally delivered to the Curator before I leave Melbourne.

LIST of SPECIES of CASSUARINÆ, or AUSTRALIAN PINES, discovered, named, and described
by MR. SWAINSON, and of which Seeds and Cones (mostly in abundance) have been
collected for the Victoria Government.

N.B. In several instances different species and numbers appear under the same specific name. All these must therefore be considered *provisionary*, and arose from not keeping a memorandum of the names I had already used. Without a single book to refer to, I have been obliged to leave several of the latter species *unnamed* (although described), from having exhausted all the specific names I can think of that were at all applicable to the species.—(Signed) W. S.

THOSE MARKED THUS (*) ARE PARTICULARLY HANDSOME TREES.

CASSUARINÆ.

1	Acuminata ...	Sharp-coned	58	Trituberculata ...	Three-tubercled
2	Truncata ...	Truncated	59	Concava ...	Concave
3	Angulata ...	Angulated	60	Armata ...	Armed
4	Lineata ...	Lined	61	Rugosa ...	Rough-barked
5	Cylindrica ...	Cylindrical	*62	Planata ...	Smooth
6	Clavata ...	Club-shaped	*63	Gracilis ...	Graceful
7	Nitida ...	Shining	*64	Longissima ...	Long-coned
8	Cinnamomina ...	Cinnamon-coloured	*65	Longifolia ...	Long-leaved
9	Pubescens ...	Downy	66	Paucifolia ...	Few-leaved
*10	Conica ...	Conic-growing	67	Media ...	Middle-sized
*11	Compacta ...	Bushy-growing	*68	Thalassina ...	Sea-green
12	Umbellifera ...	Umbel-shaped	69	Castanea ...	Chesnut-colored
13	Incerta ...	Uncertain	70	Dubia ...	Doubtful
14	Inarmata ...	Unarmed	71	Marginata ...	Margined
15	Obtusa ...	Obtuse	72	Sculpta ...	Sculptured
16	Rotundata ...	Rounded	*73	Laevissima ...	Smooth
17	Mucronata ...	Prickled	*74	Tesselata ...	Tesselated
18	Pusilla ...	Small-coned	75	Inflata ...	Inflated
*19	Laevigata ...	Great-clumped	76	Transversa ...	Transverse
20	Crassispina ...	Thick-spined	77	Plicata ...	Plicated
21	Diffusa ...	Spreading	78	Nodosa ...	Nodulous
22	Sulcata ...	Sulcated	79	Spinula ...	Little-spined
23	Pedunculata ...	Long-stalked	80	Deflexa ...	Willow-like
*24	Pendula ...	Pendant	81	Rugosa ...	Rough
25	Mollis ...	Soft-barked	82	Bispinosa ...	Two-spined
*26	Excelsa ...	Lofty	83	Browni ...	Brown's
27	Ringens ...	Gaping-coned	84	Simata ...	Sinuated
28	Radiata ...	Radiated	85	Obsoleta ...	Obscure
29	Elongata ...	Lengthened-cone	86	Excavata ...	Excavated-cone
30	Spinosa ...	Spined	87	Cunninghami ...	Cunningham's
31	Tuberculata ...	Tuberculated	88	Prismatica ...	Prismatic
32	Aculeata ...	Aculeated	89	Variabilis ...	Variable
33	Echinata ...	Echinated	90	Depressa ...	Depressed
34	Ramosissima ...	Many-branched	91	Æqualis ...	Equal-sided
35	Moriformis ...	Mulberry-shaped	92	Ovata ...	Oval
36	Divaricata ...	Two-spined	93	Muricata ...	Muricated
37	Producta ...	Long-coned	94	Denticulata ...	Three-toothed
38	Glabra ...	Smooth	95	Elevata ...	Elevated
39	Semispinosa ...	Half-spined	96	Conicula ...	Little-coned
40	Inflata ...	Inflated	97	5-angulata ...	Five-angled
41	Compressa ...	Flat-spined	98	Semiglabrata ...	Smoothish
*42		Cypress-like	99	Scabra ...	Rough
43	Incrassata ...	Thickened	100	Lindleyana ...	Lindley's
44	Querciformis ...	Oak-like	101	Variabilis ...	Variable
45	Nutans ...	Hanging	102	Hispidia ...	Hispid
*46	Divergens ...	Diverging	103	Hookeri ...	Hooker's
47	Gibbosa ...	Humped	104	Nodulosa ...	Nodulous
48	Plumata ...	Plumed	105	Divergens ...	Forked-coned
49	Pustulata ...	Pustulated	106	Excelsa ...	Tall
50	Arcuata ...	Weeping	107	Magna ...	Large-coned
51	Bituberculata ...	Two-tubercled	108	Simata ...	Sinuated
52	Articulata ...	Jointed	109	Ferruginea ...	Rust-colored
53	Inflata ...	Inflated	110	Donii ...	Don's
54	Distorta ...	Crooked-branched	111	Glabrinsetula ...	Smoothish
55	Obsoleta ...	Little-coned	112	Minima ...	Least
56	Hystrix ...	Hedgehog-spined	*113	Elegans ...	Elegant
57	Carinata ...	Carinated	114	Ramosa ...	Branched

