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**REPORT**

—ON—

**NATAL BOTANIC GARDENS,**

—AND—

**Colonial Herbarium**

—FOR THE—

**YEAR 1909-1910.**

—BY—

**J. MEDLEY WOOD, A.L.S.,**

Corresponding Member of the Pharmaceutical Society  
of Great Britain.

**DIRECTOR.**

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DURBAN:

BENNETT & DAVIS, PRINTERS, SMITH STREET.

1910.



# Durban Botanic Society.



## REPORT

—ON—

## NATAL BOTANIC GARDENS,

—FROM—

*July 1st, 1909, to June 30th, 1910.*

—BY—

*J. MEDLEY WOOD, A.L.S.,*

Corresponding Member of the Pharmaceutical Society  
of Great Britain.

**40546**

**DIRECTOR.**

1911

# DURBAN BOTANIC SOCIETY.



## President :

SIR B. W. GREENACRE.

## Committee :

MR. V. E. HOOPER

MR. M. S. EVANS.

HON. R. JAMESON, M.L.C.

MR. H. H. PUNTAN.

MR. J. DICK

MR. W. BUTCHER

## Government Members :

MR. G. MACKEURTAN

MR. J. D. BALLANCE

Mayors of Durban and Pietermaritzburg, *ex officio*.

## Sec. and Accountant :

MR. G. BURGESS

## Treasurer :

MR. J. MEDLEY WOOD, A.L.S.

## Director :

MR. J. MEDLEY WOOD, A.L.S.

## Curator :

MR. J. WYLIE.

1957  
1958

# NATAL BOTANIC SOCIETY.



## BYE-LAWS.



The Gardens are open to the public every week-day from sunrise to sunset ; on Sundays from 2 o'clock p.m. until sunset.

Children under 10 years of age, unless accompanied by competent protector, cannot be admitted.

Persons accompanied by a dog or dogs cannot be admitted.

No vehicle shall be allowed entrance, and all bicycles must be left at the gate, but upon application to the Director or Curator, invalids in wheeled chairs may be permitted.

Admission may be granted to picnic parties if permission be first obtained from the Curator.

Visitors are requested to keep to the paths, and any person sliding, running or walking up and down the grassed embankments will be liable to be expelled from the Gardens.

Touching or handling plants, fruits, or flowers is strictly prohibited, the indiscriminate use of butterfly nets is prohibited, but permission to use such nets may be obtained from the Director or Curator, and will be available for the day of issue only. This permission will not be granted on Sundays, and may at once be withdrawn if the privilege is abused.

All games, climbing of trees, shooting of guns or catapults, throwing of stones or fruit, disorderly or indecent behaviour, are strictly prohibited.

Any person abstracting, destroying, or damaging any property of the Society shall be liable to be prosecuted.

The Director is hereby authorised to prosecute offenders under the fore-going Bye-laws whenever found to be necessary.

—:o:—

The Jubilee Conservatory is open to the public as under :—

Week-days from 9 a.m. to 6 p.m., in Summer ; from 9 a.m. to sunset in Winter ; Sundays, from 2.30 p.m. to 5.30 p.m. in Summer ; from 2.30 p.m. to sunset in Winter.

The public are admitted to the Nurseries and Forcing Houses on business only, during business hours, and on Sundays and Public Holidays they are closed altogether to visitors.

The gate leading into Sydenham Road is open from 9 o'clock a.m. to 6 o'clock p.m. or sunset.

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# — REPORT. —

—:O:—

NATAL BOTANIC GARDENS, BEREA,  
DURBAN, JULY 1910.

*To the President and Committee,  
Durban Botanic Society.*

GENTLEMEN,—You are aware that in consequence of the tremendous reduction made, both in the annual grants to the Botanic Gardens and also to the Herbarium, it was not found possible to issue reports for the last two years, as formerly, on account of the expense of printing; all that was done was to issue a short two-page letter and balance sheet in order to comply with the conditions of the Law of Incorporation. For the year now ended the grant has been restored to its original amount, viz, £350 per annum, the grant to the Herbarium remains as it has been for the last two years, £175, instead of as before £300. This is only sufficient to pay the salary of the Assistant leaving a very insufficient amount for ordinary petty expenses, and nothing for the Director, who is paid by the Botanic Society alone, the greater portion of his time being taken up with the work of the Colonial Herbarium. It is, however, hoped that a more adequate allowance will be made for the work of the Herbarium which is sadly hampered by the want of books of reference, and other things which we are at present unable to obtain.

In my last report I stated that the staff had, in consequence of these reductions, to be very considerably reduced, and though more hands have been employed since that time, we are still not in a position to do more than the ordinary work of the Gardens.

In consequence chiefly of the great attractions of the Beach, the number of visitors to the Gardens has been so greatly reduced that it was found necessary to close the tea-room, which was being carried on at a loss to the lady who had kept it since the building was erected. The building, which cost the Society upwards of £300, is now untenanted.

The plant labels sadly require attention, the wooden ones have become almost illegible, many of the enamelled ones have become, chiefly, but not altogether, by the changes of temperature, chipped and broken, and of the iron ones we have but few; many have been removed by mischievous visitors, and some

have been lost, and finally, the roof of the Conservatory and Fernery require attention, which at present we cannot afford to give.

On the 31st of May, the day of the union of the South African States, several trees were planted in the garden, in commemoration of the event; they were *Machilus Nanmu* and one each of *Podocarous chinensis* *Elæocarpus grandis*, and *Khaya senegalensis*; only one of these will be allowed to stand, and in case one plant of *Machilus* survives it will be the one chosen.

In consequence of the very heavy rains which we have had during the season, the paths in the Gardens have been very much damaged, and that on several occasions very much of the time of the hands has been occupied in repairing them, and even yet they are not by any means in as good condition as they were at the commencement of the season.

Of the European staff the Curator (Mr. Wylie) has now completed 28 years service here, and is in charge of the Nurseries and the Sales Department, a position which he has filled with conspicuous success. Mr. Rutter has now been 19 years with us, and was for many years under Mr. Mr. Wylie in charge of the Nursery, but for some time past he has had charge of the Palm House Conservatory and the propagation of the more herbaceous plants, and is a valuable assistant to the Curator. Latterly the Nursery has been in the charge of Mr. Boutell, who is still here. T. Farrell, who came on a verbal agreement for three years as a learner, has now nearly completed his time, and has given every satisfaction to the Curator.

The following free grants have been made :—

	£	s.	d.
Arts and Crafts Exhibition ...	...	3	3 0
N. G. Railways Ball ...	...	1	1 0
Military Tournament ...	...	4	4 0
Durban Corporation ...	...	25	9 0
Press Concert ...	...	1	1 0
		<hr/>	
		£34	18 0

The "Guide" to the Gardens, printed in 1897, is now somewhat out of date. A new one has been prepared and typed; the old one enumerated 551 species, the new one includes more than 700, but as some alteration is absolutely required in the division of the blocks of ground, a considerable amount of work is still necessary before this new "Guide" can be made ready for printing, but when funds are available for its publication the work can be taken in hand.

In conclusion, I wish to offer my hearty thanks to the members of the Committee for their unvarying kindness, and for much valuable advice and assistance during a somewhat trying year.

J. MEDLEY WOOD.

Packets of seeds have been sent to the following persons and institutions during the years, July 1st, 1907 to July 1st, 1910:—

	1907-8	1908-9	1909-10
Royal Botanic Gardens, Kew	... 29	—	19
“ “ “ Edinburgh	... 29	17	19
“ “ “ Calcutta	... 31	17	21
Botanic Gardens, Adelaide...	... 29	17	19
“ “ Bangalore	.. 12	—	—
“ “ Barbadoes	... 2	—	19
“ “ British Guiana	... 29	17	19
“ “ Brisbane...	... 29	17	19
“ “ Buenos Ayres	... —	—	19
“ “ Buitenzorg, Java	... —	—	19
“ “ Cambridge	... 17	17	19
“ “ Ceylon ...	... 30	17	19
“ “ Dunedin...	... —	17	—
“ “ Fiji ...	... —	—	19
“ “ Glasnevin	... —	17	—
“ “ Hobart Town	... 12	17	19
“ “ Hong-Kong	... 29	17	19
“ “ Jamiaca ...	... 12	17	19
“ “ Mauritius	... 12	—	19
“ “ Melbourne	... 32	17	19
“ “ Maritzburg	... —	11	—
“ “ Montreal	... 12	—	—
“ “ Ootacamund	... 29	17	—
“ “ Ottawa ...	... 29	17	19
“ “ Penang ...	... —	17	—
“ “ Port Darwin	... 29	17	19
“ “ Rio de Janeiro	... —	—	19
“ “ Saharanpur	... 17	17	—
“ “ Singapore	... 12	17	19
“ “ Sierra Leone	... 12	—	—
“ “ South Nigeria	... —	—	12
“ “ Sydney ...	... 29	17	19
“ “ Trinidad...	... 29	17	19
“ “ Wellington, N.Z.	... 12	—	—
Agri-Horticultural Society of India, Madras	29	17	19
“ “ “ “ Calcutta ...	29	17	39
Agricultural Dept., Salisbury, Rhodesia	—	—	2
“ “ “ “ Washington, U.S.A.	—	17	21

	1907-8	1908-9	1909-10
Division of Forestry, Honolulu	... 12	—	—
Blantyre Mission, B.C Africa	... 15	—	—
W. E. Dowsett, Rhodesia	... 27	8	32
A. L. Selater, „	... 22	—	20
C. E. F. Allen, „	... 47	2	—
Dr. Telfer, Zululand	... 9	—	—
Lew Tuk Chin, Chinese Consul General	35	—	—
Reasoner Bros., Florida, U.S.A.	... 19	19	19
J. C. Harvey, Mexico	... 18	17	8
Capt. P. C. Underwood, England	... 1	—	—
H. T. Wade, England	... 9	—	—
W. Muller, Italy	... —	17	—
Barr & Sons, England	... 4	—	—
W. V. Fitzgerald, Australia	... 20	—	—
A. Robertson Proschowski, France	... 41	17	—
Chas. White, Uganda	... 1	—	—
Alwin Berger, Italy	... 17	—	—
G. P. Ahren, Phillipine Islands	... 17	—	—
Dr. Franceschi, California, U.S.A.	... 17	17	19
W. H. Johnson, Beira	... —	4	—
Capt. Hutchison, H.M.S. Devon	... —	37	—
C. F. M. Swymerton, Rhodesia	... —	28	—
Friend Addison, Stanger	... —	2	—
Hor. Marshall Campbell, Mt. Edgecombe	—	2	—
Government Experiment Farm, Cedara	—	2	—
P. C. Hervey, Zululand	... —	—	12
Administrator, N.W. Rhodesia	... —	—	1
J. Staer, Australia	... —	—	6
C. Robinson, Rhodesia	... —	—	5
Mr. Brooke, Egypt	... —	—	33
H. Griggs, H.M.S. "Hermes"	... —	—	15
Lord Methuen, Pretoria	... —	—	15
Total	... 933	591	724

Packets of seeds have been received from the following persons and institutions during the years, July 1st, 1907 to July 1st, 1910:—

	1907-8	1908-9	1909-10
Royal Botanic Gardens, Kew	... —	—	1
„ „ „ Calcutta	... 15	38	19
Botanic Gardens, Adelaide...	... —	63	—
„ „ Barbadoes	... —	—	1
„ „ Bangalore	... —	12	—
„ „ British Guiana	... —	—	15
„ „ Brisbane	... 1	—	—
„ „ Buenos Ayres	... —	—	10

	1907-8	1908-9	1909-10
Botanic Gardens, Buitenzorg, Java ...	—	—	45
” ” Ceylon ...	—	—	10
” ” Dunedin... ..	—	—	16
” ” Koshun, Japan ...	—	—	16
” ” Mauritius ...	—	—	10
” ” Melbourne ...	20	—	15
” ” Ootacamund ...	50	—	—
” ” Port Darwin ...	—	—	12
” ” Rio de Janeiro ...	—	—	16
” ” Singapore ...	2	—	—
” ” Southern Nigeria ...	—	—	3
” ” Sydney ...	26	—	35
” ” Trinidad... ..	2	6	8
” ” Wellington, N.Z. ...	—	1	—
Agri-Horticultural Society, Calcutta ...	—	—	15
Dept. of Agriculture, Washington, U.S.A.	12	—	—
The Arnold Arboretum, U.S.A. ...	—	1	—
Board of Agriculture and Forestry, Honolulu ...	105	—	50
Hortus Tenggerensis, Java ...	—	—	30
Reasoner Bros., Florida, U.S.A ...	—	—	2
W. E. Dowsett, Rhodesia ...	—	—	5
James O'Brien, London ...	—	—	150
J. Staer, Australia ...	—	—	18
P. C. Hervey, Zulu and ...	—	—	1
C. F. M. Swymerton, Rhodesia ...	—	—	4
Hon. R. Jameson, Bellair ...	12	—	30
University of Chicago, Chicago ...	—	1	—
M. Buysman, Holland ...	10	—	—
Dammaun & Co., Naples ...	1	—	—
C. Sprenger, Naples ...	1	—	—
M. Herb, Naples ...	33	21	—
J. C. Harvey, Mexico ...	1	—	—
W. E. Ledger, England ...	4	—	—
Alwin Berger, Italy ...	65	—	—
Henry Travers, New Zealand ...	11	—	—
Dr. Robertson Proschowski, France ...	—	18	—
W. S. Lyon, Manilla ...	—	1	—
C. Pfrimmer, Algeria ...	—	2	—
W. Muller, Italy ...	—	3	—
J. Ferguson, Umtwalumi ...	1	—	—
James Schofield, Ixopo ...	1	—	—
Geo. Thorncroft, Barberton ...	3	—	—
J. F. Faunin, Natal ...	1	—	—
Blantyre Mission, B.C.A. ...	2	—	—
C. E. F. Allen, Rhodesia ...	1	—	—
Dr. Hyslop, Maritzburg ...	1	—	—

	1907-8	1908-9	1909-10
G. Swanfield, Zanzibar ...	23	1	—
Director of Agriculture, Cedara ...	1	—	—
Botanic Dept., Zomba ...	—	2	—
R. Benningfield, Durban ...	—	1	—
W. H. Johnson, Beira ...	—	1	—
Captain Kessler ...	—	3	—
Miss B. Allen, Uganda ...	—	6	—
Total ...	405	181	577

## Plants, bulbs, and cuttings sent away:—

	1907-8	1908-9	1909-10
Royal Botanic Gardens, Kew ...	12	16	52
"    "    "    Mauritius ...	—	—	50
James O'Brien, London ...	280	843	1220
Somerset Beaumont, England ...	12	—	—
W. E. Ledger, England ...	18	—	—
Agricultural Dept., Washington, U.S.A.	12	—	—
M. Herb, Naples ...	—	253	—
Sir Walter Peace, England ...	—	68	—
C. G. Van Tubergen, Holland ...	96	402	—
Barr & Sons, London ...	115	—	—
Govt. Experiment Farm, Cedara ...	—	490	1100
"    "    "    Empangeni ...	—	—	2130
"    "    "    Winkle Spruit ...	—	28	2420
Forestry and Botanical Dept., Zomba ...	—	108	—
F. J. Angus, Ravensworth ..	6	—	—
G. Swanfield, Zululand ...	16	—	—
G. F. M. Swymerton, Rhodesia ...	—	8	—
E. Pillans, Capetown ...	—	9	—
African Bulb Co., Cape Colony ...	—	—	200
Total ...	567	2225	7172
Emoyeni Fibre Estate, Cassava Cuttings ...	1800	—	—
C. F. Hough, Swaziland, Cassava Cuttings ...	120	—	—
Total ...	1920	—	—

## Plants, and bulbs received:—

	1907-8	1908-9	1909-10
Royal Botanic Gardens, Kew ...	—	—	35
Agricultural Dept., Washington, U.S.A.	—	8	—
Government Experiment Farm, Cedara ...	—	553	2470

	1907-8	1908-9	1909-10
James O'Brien, London ...	65	—	37
Dr. Robertson Proschowski, France ...	—	—	17
M. Herb, Naples ...	230	135	95
Dr. Marloth, Capetown ...	—	7	—
E. Pillans, Capetown ...	—	20	—
C. G. Van Tubergen, Holland ...	—	28	—
African Bulb Co., Cape Colony ...	—	—	50
C. F. Heugh, Swaziland ...	15	—	—
A. L. Lawley, Beira ...	18	—	—
H. Berensberg, Durban ...	6	—	—
H. E. Stainbank, Maritzburg ...	3	—	—
Mrs. Allison ...	4	—	—
T. R. Sim, Maritzburg ...	1	—	—
Dr. Telfer, Zululand ...	8	—	—
Mrs. Grundy, Durban ...	1	—	—
Superintendent Park, Maritzburg ...	5	—	—
Mr. Stanley ...	1	—	—
G. Swanfield, Zanzibar ...	8	—	—
W. E. Ledger, London ...	2	—	—
T. Honey, Delagoa Bay ...	—	3	—
Mrs. English, Johannesburg ...	—	1	—
Geo. Thorncroft, Barberton ...	—	3	—
V. Erskine, Greytown ...	—	3	—
Mrs. S. Turner, St. Johns ...	—	—	2
S. Todd, Barberton ...	—	—	9
H. D. Stanton, Durban ...	—	—	2
Mrs. Forbes, Athole, Transvaal ...	—	—	24
James Beningfield, Durban ...	—	—	150
	<hr/>	<hr/>	<hr/>
Total ...	367	761	2891
	<hr/>	<hr/>	<hr/>

The following publications have been received:—

*Agricultural Department, British Guiana.*

Report for 1908.

*Agricultural Department, Cape of Good Hope.*

Journal of Agriculture, current numbers.

Report on Museums.

Report Conservator of Forests.

*Agricultural Department, Philippines.*

Report Director of Forestry.

Agricultural Review, current numbers.

*Agricultural Department, Transvaal.*

Agricultural Journal, current numbers.

Annals of Transvaal Museum, Vol. I., Part 4.

*Agricultural Department, Victoria.*

Agricultural Journal, current numbers.

*Agricultural Department, West Indies.*

Bulletin Vol. X., Nos. 1 and 2.

Agricultural News, current numbers.

*Agri-Horticultural Society of India.*

Proceedings July–December 1908 ; January–June 1909.

*Agricultural Department, Canada.*

Report on Experiment Farms, 3 vols , 1905-6-7-8-9.  
Farming in Canada.

*Agri-Horticultural Society, Madras.*

Report of Annual Meeting.

*Royal Botanic Gardens, Calcutta.*

Ten circulars on various subjects.

*Royal Gardens. Kew.*

Icones Plantarum, Vol. IX., Part IV ; Vol. X., Part 1.

Kew Bulletin, current numbers.

Flora Capensis, Vol. V., Section I., Part 2.

*Kolonial Museum, Haarlem.*

Bulletins No. 42, 43, 44.

*Imperial Botanic Gardens, St. Petersburg.*

Acta Horti Petropolitani, Vol. XXX, 1.

*Botanic Gardens, Sydney, N. S. Wales.*

Critical Revision of the genus Eucalyptus, by J. H. Maiden,  
Vol. II., Part 1.

Plants which cause Inflammation of the Skin, by J. H.  
Maiden.

Useful Australian Plants, 4 pamphlets.

Forestry.

*Botanic Gardens, Singapore, Straits Settlements.*

Agricultural Bulletin, current numbers.

*Field Museum, Chicago, U. S. America.*

Report, Vol. III., No. 3, 1909.

Prænunçæ Bahamensis, II.

*C. G. Lloyd, U. S. America.*

Mycological Notes, current numbers.

Synopsis of known Phalloids.

*Botanic Gardens, Brussels.*

Les aspects de la vegetation en Belgium.  
 Flora du bas et du Moyen Congo.  
 Sylloge Floræ Congolensæ.

*Congo Museum.*

Contributions to Flora of Congo, Index.  
 Plantes principales de la region de Kisantu.

*University of California.*

Bulletin Vol. II., No 9.  
 Exchanges maintained by the University Press.  
 University publications 1906.

*Smithsonian Institute, U. S. America.*

Report, United States National Museum.  
 Systematic Investigations and Bibliography.  
 Cactaceæ of North Eastern and Central Mexico, by W. E.

Stafford.

Climatic Variation, by J. W. Gregory, F.R.S.  
 Heredity and the Origin of Species, by D. T. Macdougall.  
 Report 1909.

Three new species of Echeveria, by J. N. Rose and J. A.  
 Purpus.

*Agricultural Department, U. S. America.*

Experiment Station Record, current numbers.  
 Contributions to National Herbarium, Vol. XII., P. 10 ;  
 Vol. XIII., P. 1.  
 Year Book, United States Department of Agriculture, 1908.

*Welcome Research Laboratory.*

Eight pamphlets on Chemical Subjects.  
 Biographical Sketch of Charles Darwin.

*Dr. Marloth, Capetown.*

A Diplostigmatic Plant.  
 Some New Species of Euphorbia.  
 Vegetation of the Southern Namib.  
 Some Observations on Entomophilous Flowers.  
 Some new South African Succulents.  
 Notes on the Absorption of Water by Aerial Organs of  
 Plants.

Die Schulzmittel der Pflanzen Geyen Ubermabige Insolation

*Botanic Gardens, Melbourne.*

Guide to Gardens.  
 Weeds, Poison Plants and Naturalised Aliens of Victoria.  
 Recording Census of the Victorian Flora.  
 Contributions to the Flora of Australia Nos. 11, 12.

*Experiment Station, Porto Rico.*

Bulletin for 1908.

Manuring with Lime and Magnesia.

Soil Disinfection in Agriculture.

*Various.*

Natal Agricultural Journal.

List of Plants and Ferns, Albany and Bathurst, by Rev. F.

A. Rogers.

Third Annual Report, South African Central Locust Bureau.

Agricultural Bulletin, Jamaica.

Bulletin, New York Botanic Garden, Vol. VII., Nos. 23, 24,

Der Konigliche Botanische Garten und das Museum zu Dahlem.

Midland Naturalist, December 1909.

Transactions, Botanical Society of Edinburgh, Vol. XXIV., P. 1.

Annals of Natal Government Museum, Vol. II., P. 1.

Long Island Agronomist, April-May 1910.

Report, Louisiana State Museum 1910.

Pharmaceutical Journal, current numbers.

Gleanings in Bee-keeping, current numbers.

Notes from the Royal Gardens, Edinburgh, Nos. XX., XXI.

Bulletin of Agricultural Station, Nebraska.

Directions for control of Nebraska Plant Diseases, by E. M. Wilcox.

*Purchased.*

Gardeners' Chronicle.

Journal of Botany.

Tropical Agriculturist.

"VEGETABLE IVORY."

Enquiries have frequently been made about the "Ivory Palm," the fruit of which are said to be in demand in Europe, and my correspondents were under the impression that this plant was a native of Natal, therefore, some particulars of it will not be without interest. The plant yielding these fruits is *Phytelephas macrocarpa*, a native of Ecuador and New Granada; it is a low growing almost stemless plant bearing large fruits, the albumen of which is at first soft and edible, afterwards hardening to an ivory-like consistency; large numbers of these nuts are imported into Europe, and used as a substitute for ivory. So far as I am aware not a single specimen of this plant is in cultivation in the colony, or in South Africa. In Natal we have three or four species of Palms, of which two only are common, the other one or two being found in Zululand only, and these may for the present

be left out of the question; the two that are fairly common are *Phoenix reclinata*, known to the natives as i-sundu, its fruits being small with something of the flavour of the "Date," to which the plant is nearly related; the other species is *Hyphæne crinita*, the "Ilala" palm, and this is the plant which bears the fruits which have been thought to be "Vegetable Ivory." The Ilala Palm is only found in the coast districts, from the Umzinto to far into Zululand, and in some parts of Zululand it bears the nuts in abundance, and I have been informed that it has also borne seeds in the Umzinto districts and perhaps near Umkomaas also. About 25 years or more ago I saw many plants of it on the Durban Flats, but the district is now built over, with a tramway through its centre; these plants were always small and stunted, and quite possibly some may still be found between the Railway line and the beach. If the price mentioned to me could be obtained for these nuts it would be worth while to collect them for export, but to cultivate the plants for profit is quite out of the question, for in the first place the plants would hardly bear seeds under 20 years from planting, and would probably be longer than that; in the next place the plants are male and female, and it would be certainly found that the males would far exceed the females in number, and it is not possible to distinguish the two until the time of flowering arrives. A row of seeds of these plants were sown in the Botanic Gardens, by the late Mr. McKen probably 40 years ago; the length of the row is about 20 yards, and 17 plants are alive, 13 of these are dwarf, sickly looking plants without sign of stem or trunk, in fact just as I remember seeing plants of this species years ago near the place now known as 1st Avenue; one plant is just beginning to form a stem while three have each several stems from 12 to 15 feet in height; these bore flowers some years ago and all of them are male plants, so I think that the idea of growing these plants for profit may be finally abandoned.

MACHILUS NAN-MU, Oliver.

Order LAURINEÆ.

In the Kew Bulletin for 1877 there appeared a short account of a Chinese tree then known as the Nan-Mu tree of the Chinese, and it is said that the wood is "highly esteemed by the court for building purposes, and by the wealthy for coffins on account of its durability. This timber is to be seen in perfect condition after the lapse of nearly three centuries." It also says: "The tree is tall, thin, straight growing, having no boughs or twigs on the stem, but suddenly shooting out branches at the top somewhat resembling a canopy over a maypole." At this time the tree was undescribed, but thought to belong to the Order Laurineæ. In 1879 further information had been obtained, and the plant had been described from the

specimens which had been obtained, and it was named by Professor Oliver *Persaea Nan-Mu*. It was then stated that trees had been seen "having a straight branchless trunk to 100 feet in height, with the branches and foliage rising 25 feet above that." Since that time upon further examination the name has been altered to *Machilus Nanmu*, Helmsl. Many years ago I was anxious to obtain seeds of this for trial here, but was not successful, as at that time seeds were scarcely if at all available. Lately, however, I have obtained from Mr. Sawyer of the Experiment Farm at Cedara three plants of it which have been put out in the Gardens, and we hope that they will succeed here.

POUTERIA SUAIVIS, Helmsl.

Order SAPOTACEÆ.

In the Kew Bulletin, No. 9, of 1906, an account of a fruit tree was given, of which the following is an extract:—

"There is a plant bearing a fruit and having persistent leaves, which is certainly endemic in the Islands of the Uruguay River, and is so peculiar that nobody has yet been able to classify it. The general appearance of the plant is that of a laurel, with leaves which are green and shining on the upper surface. The fruit is about the size of an apricot, but of the shape of an apple; it is yellow and scarlet when mature and possesses a perfume so delicate that it is equalled in no other fruit. The seed is like a large hazel-nut, but the edible fleshy part of the fruit is small; it has, however, an extremely agreeable taste and possesses such a remarkable digestive property that when the aborigines have over-indulged, they eat freely of this before lying down at night, and then they "sleep like a child," and wake up the next morning with a clear head and a "wonderful appetite." I should have said that this is an extract from a letter from Mr. E. Frosio, of Uruguay, and which was sent to the editor of an Italian newspaper, who forwarded it to Kew. Seeds of this plant were received from Kew during the year, and plants have been raised, and it is hoped that what appears to be so desirable a tree may be acclimatised in the Colony.

COLOCASIA ANTIQUORUM, Schott.

Order AROIDEÆ.

This plant, which according to the late Baron Mueller, is one "of the about half-hundred kinds of leading food plants of the world," is known in the West Indies as Eddoes, in South Sea Islands as Taro, and in Egypt and Arabia as Kolkas, and in all these countries it is extensively cultivated. Like the Cassava its tubers contain an acrid principle which makes them quite unfit for eating in the raw state, but this is completely dissipated in the process of cooking. The tubers vary in size, in good-soil sometimes attaining the size of a child's

head, and when boiled or baked they have a great resemblance to the sweet potato, but are more delicate in flavour and more nutritious. When the tubers are taken out of the ground the top is cut off and re-planted, the remainder or largest portion is used, and it is said that the tubers may be stored for a considerable time without injury. Of this plant we have now 20 varieties in cultivation. They were received from the West Indies by the kindness of the Commissioner of Agriculture for West Indies, and we shall have a number of plants for distribution in the early spring. A variety of this plant is cultivated by the natives under the name of Amadumbi.

MANIHOT, spp.

Order EUPHORBIACEÆ.

In my last report I stated that I had received from the Director of Kew Gardens a bag of seeds of each of the two new species of *Manihot*, viz., *M. dichotoma* and *M. piauhyensis*, that a few had been sown here, and a greater portion divided between two planters. Very many of the seeds were bad and did not germinate, but we reared about 30 of *M. dichotoma* and 8 of *M. piauhyensis*. These were put out into the ground, and we have now 16 of the former and 3 of the latter species. The tallest plant of *M. dichotoma* is about four feet high, of *M. piauhyensis* about three feet. Accounts which I have received from other places agree with our experience, that is, the seeds of *M. dichotoma* germinate more readily and the plants grow faster than those of *M. piauhyensis*. Of the seeds given to others for trial one recipient failed to rear any, but was afterwards supplied with two plants of *M. dichotoma* for trial. The seeds supplied to the Natal Estates Co., at Mount Edgecombe, appear to have done better, more than 100 plants were reared, most of which I understand are still alive, chiefly I think those of *M. dichotoma*, but Hon. Marshall Campbell informs me that bucks appear to be very fond of them, and that a number of them have been damaged by the tops having been bitten off.



# DURBAN BOTANIC SOCIETY.

## Receipts and Expenditure for 12 Months ending 30th June, 1910.

### RECEIPTS.

Balance at Bank, July, 1909	£249 13 4
"    due by Treasurer	1 16 2
Sale of Plants	1236 19 7
Government Grant, General	350 0 0
"    Herbarium	175 0 0
"    "Natal Plants"	85 0 0
Subscription and Donations	254 14 5
Sale of Handbooks	0 11 0
	£2,353 14 6

### EXPENDITURE.

European Salaries and Wages	£883 10 0
Native and Indian Wages	396 16 0
Ration and Fodder	137 18 4
Printing "Natal Plants"	50 12 6
General Maintenance	311 13 3
Colonial Herbarium—	
Salaries	£298 0 0
Maintenance	20 4 4
	318 4 4
Balance in Bank, 30th June, 1910	255 0 1
	£2,353 14 6

Audited and found correct.

R. P. McNAIR,

Incop. Accountant, Eng.,  
Auditor.

1st September, 1910.

# Colonial Herbarium.

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## REPORT

—FROM—

July 1st, 1909, to June 30th, 1910,

—BY—

*J. MEDLEY WOOD, A.L.S.,*

Corresponding Member of the Pharmaceutical Society  
of Great Britain,

**DIRECTOR OF BOTANIC GARDENS,**

**DURBAN.**

COLONIAL REPERTORY

1810-1815

THE COLONIAL OFFICE

1816-1820

THE COLONIAL OFFICE

1821-1825

1826-1830

## COLONIAL HERBARIUM.

During the year now ended the specimens in the Herbarium have been increased from 42,361 sheets as mentioned in my last Report to 42,914, an increase of 553 only, of these 30,440 are from outside South Africa, and 12,474 are South African and these include a large number of type species; in addition to this we have more than 900 specimens ready for mounting, and I have advice of three parcels of North American plants and several others are due to us by way of exchange, but as I have now no junior assistant, and the funds at my command do not allow of my being able to engage assistance, we can only until the Government Grant is increased keep these specimens in parcels, with any others that may and will arrive until the necessary pecuniary assistance can be obtained. The supplement to the Revised List of the Flora of Natal has been published by the Royal Society of South Africa, and copies have been sent to our Botanical correspondents.

The illustrated work "Natal Plants" was stopped for a time in consequence of no Grant having been made as formerly for its publication, but the Government having consented to a Grant of £35, for this purpose we commenced Part 2 of Vol. VI, which I hope will be completed in a month or two from date; the actual cost of printing and lithographing will, however, be about £52, this work may be continued if it is adequately supported by the Government.

Specimens have been received as under:—

G. L. Fisher, Canada	...	...	...	84
A. J. Ewart, Govt. Botanist, Victoria, Australia	...	...	...	600
J. H. Maiden, Sydney, N.S. Wales	...	...	...	101
Alex. Morrison, West Australia	...	...	...	154
J. Macoun, Geological Survey of Canada	...	...	...	97
Dr. S. Schonland, Government Museum, Grahamstown	...	...	...	44

Specimens have been sent away as under:—

Government Herbarium, Capetown	...	...	52
"    "    Grahamstown	...	...	54
"    "    Calcutta	...	...	109
"    "    Sydney, N.S. Wales	...	...	103
"    "    Victoria, Australia	...	...	101
Alex Morrison, West Australia	...	...	242
G. L. Fisher, Canada ..	...	...	57
O. Bonati, Paris, France (specially requested)	...	...	25
R. Hamet, "    "    "    "    "	...	...	15

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and a number of indigenous specimens are on hand for exchange.

A large number of specimens have been sent for identification; many were merely sent to obtain the name of the plant, some by Entomologists who wished to be able to identify the plants on which the different Lepidoptera feed, while others wished to obtain information as to the economic value or the deleterious or other properties possessed by the plants of which they sent specimens, and of these latter I have selected some of the most prominent for further notice here:—

Examination and identification of the seeds of *Ipomoea albivenia* (G. Don). Information was sent as to the value of the fibre attached to the seeds, which is too short in staple, and too weak to be of any commercial value except, perhaps, for stuffing cushions, etc., for which purpose it is occasionally used.

Identification of a grass which was said to "have stood the dry weather and frost" up to the date of sending, the grass was *Poa annua*, (Linn).

Examination of two leaves which were supposed to be those of *Fourcroya gigantea*, and *Agave rigida*, both fibre plants, the one supposed to be a *Fourcroya* was that of a species of *Doryanthes* an imported plant, the other was a species of *Fourcroya*.

Examination of two roots of a plant which had been obtained from a native doctor, and also of two seed vessels of a plant said to be injurious to sheep. The roots without leaves or any information about them could not be identified, the fruits were of those of *Cucumis africanus*, (Linn).

Examination of an incomplete specimen of a shrub or tree, but as leaves and twigs only were sent the plant could not be certainly identified, but I know of no plant with which it could be compared that is really poisonous to cattle,

Examination of 308 specimens of indigenous plants used medicinally by the natives and identification of 247 of them, the remainder being undeterminable, the specimens being insufficient.

Identification of a plant *Urgenia lilacina*, (Baker). It is closely allied to the plant known in Transvaal as "Slang Kop," which is known to be poisonous to cattle; our plant also has a bad reputation.

Determination of 9 species of indigenous plants chiefly native medicinal plants.

Identification of an imported weed which had appeared in the upper districts; it proved to be a variety of *Echium vulgare*, (Linn), it is probably an escape from cultivation.

Identification of a specimen of a grass which had been sown instead of *Paspalum dilatatum*, it was *Paspalum scrobiculatum*, (Linn), a grass which when in seed is injurious if not poisonous to cattle.

Examination of seeds and leaves of a plant from Zululand, it proved to be a species of *Strophanthus* certainly new to South Africa, but could not be described in the absence of flowers which were asked for.

Identification of 12 indigenous plants used by the natives medicinally, all of them being natives of the coast districts.

Information as to the seeds which are being used for ornament in Natal and the probability of the tree which bears them succeeding in the colony; the tree is *Afzelia quanzensis*, (Welw), a native of tropical Africa; there is in my opinion no chance whatever of its success in Natal.

Identification of fruits and seeds of *Jatropha curcas*, (Linn), some persons have been made violently ill by eating some of the seeds, this shrub is known as the "purging nut" and its effects when taken even in small quantities are extremely violent, and might prove fatal.

Identification of a species of grass from the midlands which proved to be *Bromus commutatus*, (Schrud) a native of Europe, introduced as a weed into South Africa, and not previously recorded in Natal.

Identification of a grass *Ohloris Gayana*, (Kunth) commonly known in South Africa as "Rhodes grass."

Identification of specimen of a grass from the upper districts which proved to be *Avena (Avenastrum) elatior*, (Linn) an accidentally imported species; it is a native of Europe, Baron von Mueller says of it "it should be chosen for dry and

barren tracts of country, having proved through its deeply penetrating roots to resist occasional droughts better than rye grass."

Identification of a specimen of a plant which was thought by the sender to be useful as a fibre yielding plant; it proved to be *Triumfetta pilosa*, (Roth) its fibre is of the Jute class and is scarcely worth attention in Natal.

Identification of a specimen from the upper districts; the sender said that the plant had made its appearance in a field of English grasses and that it had "spread to such an extent as to be destroying the grasses in the field and in the veldt as well;" it proved to be *Achillea millefolium*, (Linn) the "Yarrow" or "Milfoil."

Identification of an indigenous plant whose stems contained a fibre; it proved to be *Abutilon indicum*, (G. Don), the fibre is of the Jute class and would only be worth about £15 to £20 per ton.

Identification of male flowers of *Moschosma riparia*, (Hochst), information was supplied as to its supposed medicinal properties, and also as to its monœcious character.

Identification of flowering spike and leaf of *Erythrina suberosa*, (Roxb), with information as to its synonymy.

Identification of a plant which was supposed by the sender to be an Orchid, but which proved to be a species of *Cuscuta*, with advice as to the destruction of the plant whenever met with, and when possible before seeding.

Examination of a plant from the midlands said to stand frost well and to be acceptable to cattle; it was thought to have been introduced amongst seed of oats from Cape Colony; it proved to be *Raphanus sativus*, (Linn), the common "Raddish," but it was an immense specimen.

Examination of two plants which were supposed to be poisonous to stock; they were *Moræa spathacea*, (Ker), and *Anoiganthus luteus*, (Baker), the former is undoubtedly poisonous, the later doubtful, but probably at least deleterious.

Examination of two sticks of so-called "bamboo" from Transvaal; one was almost certainly *Arundinaria tessellata*, (Munro), the other a species of "Rattan" or cane belonging to the Order Palmæ, and certainly not indigenous.

Identification of a fungus found on an old "Wattle" log; it was a rather rare species, *Lentinus Zeyheri*, (Berkh).

Identification of a small specimen of a plant said by the sender to be very poisonous to sheep; the plant was *Ranunculus pinnatus*, (Poir), which is undoubtedly more or less poisonous.

Identification of a very singular plant from Transvaal, *Schizobasis intricata*, (Baker); one perfect flower and no leaves were sent, but the leaves of this plant are very evanescent.

Identification of a specimen of a grass which was thought to have been imported, and was said to be an excellent pasture grass; it proved to be *Agrostis lachmantha*, (Nees), an indigenous, but not very common grass.

Identification of a specimen of a native grass which was said to remain green all the winter at an altitude of 6,000 feet on the Drakensberg. It proved to be *Phalaris arundinacea* (Linn).

Identification of a plant which was said to thrive under the trees in a wattle plantation. It was a sedge, *Carex spicato-paniculata* (C. B. Clarke).

Identification of 21 species of indigenous plants, one of which is probably undescribed.

Identification of two specimens of native shrubs which were supposed to be useful as honey plants. They were *Dalbergia obovata* (E. Mey), and *Dais cotinifolia* (Harv).

Identification of 47 species of indigenous plants from the Midlands.

Identification of a specimen of a grass which was said to remain green all the winter at Polela. It was *Holus lanatus* (Linn), a native of Europe and North Africa, but introduced into Natal. It had already been sent to us from near the Dargle.

Identification of a plant which had been prescribed by a native doctor with fatal result. It proved to be *Phytolacca stricta* (Hoffm), and is well known to be poisonous.

Identification of very imperfect specimens of two plants which were supposed to be injurious to wool. They were *Xanthium spinosum* (Linn) which is a proclaimed plant, and *Triumfetta rhomboidea* (Jacq.) a tropical and sub-tropical weed, not I think found in the upper districts of the Colony. Its burrs, however, would be injurious to wool.

Identification of a specimen of a grass, *Bromus unioloides* (H.B.K.)<sup>o</sup> Specimens of this grass are frequently sent for identification and information. It is well thought of in some countries, but does not seem to find favour with the farmers of Natal.

Information as to a plant known to the natives as "Iciya." No specimen was sent. This name is applied to more than one species of the genus *Scilla*, more particularly to *Scilla natalensis* (Planch) and *S. lancæfolia* (Baker), the properties of these plants are most probably purgative.

Examination and identification of 32 specimens of indigenous plants, many of which were grasses and Cyperaceæ, one of which was new to the Colony. List of the names of all of them were sent.

Examination and identification of 40 specimens from Transvaal, some of them were rare specimens. List of the names was sent.

Identification of a specimen of grass which the sender thought might be a useful pasture grass. It was *Agropyrum repens* (Beauv.) This grass is a native of Europe, and one author says of it: "One of the most troublesome weeds that the farmer has to encounter. It is difficult to eradicate from the soil, having long running roots which branch out in every direction."

Examination of a specimen of a grass which it was thought might prove to be a good lawn grass, it was *Paspalum scrobiculatum* (Linn), a grass which when in seed is said to be poisonous to cattle.

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Some of the plants which have been introduced into the Colony and have become naturalized:—

ABRUS PRECATORIUS, Linn. Order LEGUMINOSÆ.

This plant, originally a native of East and West Indies, has become naturalized in the coast districts of Natal. Its bright scarlet seeds having a jet black spot are known here as "lucky beans," and are in many countries used for forming rosaries, hence the specific name of the plant; the roots are said to be a perfect substitute for liquorice.

ALTERNANTHERA ECHINATA, Sm. Order AMARANTACEÆ.

This plant is a native of tropical America, and it was first found here in the Agricultural Show Ground, where numbers of horses and mules were kept during the late war. It was most likely brought here at that time, but so far it does not seem to make much progress, and will perhaps eventually die out. Its prickly flower heads might be injurious to cattle. It has also found its way to Cape Colony, as a specimen from Umtata is in our Herbarium, also in Upper and Lower Guinea

AMARANTUS SPINOSUS, L. Order AMARANTACEÆ.

This well known weed was probably introduced here from Mauritius or India about the time of the Zulu war. It is closely related to *A. Thunbergii*, better known as "Imbuya," it is a more troublesome weed on account of its sharp prickles, both of these plants bear seed in prodigious abundance, commencing to do so at a very early age.

## ANAGALLIS ARVENSIS, L.

## Order PRIMULACEÆ.

A common weed in cornfields in Europe, and known as the "Scarlet Pimpernel." Its seeds are poisonous to birds, and the whole plant has the reputation of being deleterious.

## ANDROPOGON HALEPENSIS, VAR. EFFUSUS, STAFF. Order GRAMINEÆ.

This is the "Johnson Grass" or "Evergreen Millet." Mr. Burt Davy says of it in the "Transvaal Agricultural Journal":—"One of the most pernicious weeds ever introduced by human agency." He also says: "It only thrives well on rich moist soils where other and more profitable crops such as lucerne may be grown. It is, moreover, a veritable pest in agricultural lands and in orchards, and one that is almost impossible to eradicate. So bad has it become in California that a law against it was passed by the State Legislature at its session in the winter of 1902-3. "He also says quoting from the Pacific Rural Press "If we could name an easy way to extirpate Johnson grass our fortune would be made. The fact of the matter is that it is practically impossible to make a clearing of it from any piece of land where it chooses to stay." Dried specimens of this grass may be seen in the Colonial Herbarium, and living plants in the Botanic Garden during the summer months.

## ARGEMONE MEXICANA, L.

## Order PAPAVERACEÆ.

A native of Mexico, which has been introduced and become naturalized in most tropical countries. In the West Indies, it is known as "Yellow Thistle," in Mexico as "Fico del Inferno" or Devil Fig; the sap is yellow on exposure, acrid and has been used medicinally; the seeds have narcotic properties and contain an oil which is cathartic and emetic. In Natal the plant is only met with in the coast districts.

## BIDENS BIPINNATA, L.

## Order COMPOSITEÆ.

This plant is found in most tropical countries, but is fortunately rare in Natal, so far as known to us it has only once been collected in Natal; and was found by the writer in the vicinity of a large Mission Station; it is not included in the earlier list of Natal Plants, and has not become common though it is nearly 30 years since it was first noticed in the colony. It is very closely related to *Bidens pilosa*, the well known "Black Jack."

## BROMUS MAXIMUS, Desf.

## Order GRAMINEÆ.

This grass is a native of Western Europe, and the Mediterranean regions, and has long been naturalised in Natal and other parts of South Africa. In the "Natural History of British Grasses," by E. J. Lowe, F.R.S., it is said to be rare in

Britain, and to be of no agricultural value. Mr. J. Burtt-Davy, the Government Botanist of Transvaal, in the Transvaal Agricultural Journal says of it: "This grass is generally disliked by stock, even when young; when the seeds are mature the barbed awns sometimes cause serious ulcerations in mouths of stock; they also stick to the wool reducing its value. This grass makes a rank growth and is apt to choke out better grasses; in California it has done a good deal of damage to open veld pasture in this way. It is an annual and does not keep green throughout the year. If 'Broncho-grass' makes its appearance on Transvaal farms, farmers will be well advised to root out and burn it before it becomes established."

BROMUS UNIOLOIDES, H.B.K.                      Order GRAMINEÆ.

Originally a native of Central America, this grass has become naturalised in many parts of the world, and is by many persons thought to be a useful fodder and pasture grass.

CARDUS PYCNOCEPHALUS, L.                      Order COMPOSITÆ.

This plant belongs to a section of this Order, which includes a number of plants commonly known as "Thistles;" the whole of these plants are proclaimed for the whole of the States of Victoria, Australia; it is a native of Europe and Asia. It was first found by the writer in a sheltered valley at Van Reenen in December, 1904; apparently horses had been kept in the valley during the war time and seeds of the plant had been introduced amongst the forage. As the whole plant including the flower heads are prickly it would be advisable that precautions should be taken to prevent its becoming a pest to farmers in the colony.

CASSIA OCCIDENTALIS, L.                      Order LEGUMINOSÆ.

A common tropical plant which has long ago become naturalised in the coast districts of Natal. It is a shrub bearing yellow flowers; the pods are 2 or 3 inches long, compressed, brown with pale margins. The seeds have been used with success as a febrifuge, and also as an adulterant of Coffee, but they do not contain caffeine. The roots have been used as a tonic and diuretic, and the leaves are said to have purgative properties.

CENTAUREA MELITTENSIS, L.                      Order COMPOSITÆ.

A tall Thistle-like weed, the seeds of which have been probably introduced with agricultural seeds of some kind, specimens have twice been sent to the Herbarium for identification from Ixopo by Mr. J. Schofield, M.L.A., and from Greytown by Mr. Thresh. If not checked it may become a troublesome weed.

CONIUM MACULATUM, L.

Order UMBELLIFERÆ.

This is the common "Hemlock" of Europe, and is well-known as a virulently poisonous plant; its poisonous properties are said to be more active in hot and dry seasons; fortunately it is at present not very common in Natal, but has been twice collected by the writer in the midland districts.

DATURA ALBA, Nees.

Order SOLANACEÆ.

Found in the vicinity of Durban; it is a very poisonous plant; cases of poisoning have occurred in Natal which were traced to this plant; it is very nearly related to the common Stramonium, but seems to be more virulent, and was probably introduced by the Indians, perhaps accidentally.

ERIGERON CANADENSIS, L.

Order COMPOSITÆ.

A common and abundant weed, originally from America, but has been naturalised in Natal some 50 years or more, and is now not uncommon in cultivated lands; its popular name in America is "Horseweed," and Mr. Burt Davy says of it in the "Transvaal Agricultural Journal," "If not eradicated Horseweed is likely to be particularly injurious to lucerne fields, as it soon overtops the lucerne," cutting it down or mowing is of no use, the best way is to pull the plants up by the roots before seeding.

EUPHORBIA PILULIFERA, L.

Order EUPHORBIACEÆ.

A cosmopolitan plant in the tropics, in Natal introduced in late years, it is not uncommon about Durban and has been gathered near Pinetown. It has a great reputation as a remedy for asthma, and is used for this purpose in Europe.

FUMARIA OFFICINALIS, L.

Order PAPAVERACEÆ.

The well-known Fumitory or "Smoke-wort;" the leaves have been used medicinally and probably still are so. The plant is not common in Natal, but was collected by the writer on the South coast some 30 years ago and again lately in the same locality; it does not appear to spread rapidly.

GOMPHRENA GLOBOSA, L.

Order AMARANTACEÆ.

This plant is almost cosmopolitan, but only reached Natal some 20 to 30 years ago, probably with forage. It does not appear as a native of South Africa in Harvey's Genera of South African Plants, published in 1868, but is now quite plentiful in the coast districts, and its eradication would now be a matter of some difficulty.

*HOLCUS LANATUS*, L.

## Order GRAMINEÆ.

A handsome but almost worthless grass, native of Europe, Siberia and North Africa; it has only lately been introduced into Natal; only one species of the genus is noted in Harvey's Genera; in the Flora Capensis lately published two species are enumerated, but Natal is not credited with either of them; one specimen only of this grass is in the Colonial Herbarium, which was sent by Mr. Woodhouse of the Dargle for determination. It is said that cattle and horses are not fond of it.

*HYPERICUM LANCEOLATUM*, L.

## Order HYPERICINEÆ.

A shrub bearing conspicuous yellow flowers; it is a native of Madagascar, and so far as known to us has in Natal only been found on the banks of the River Illovo in the vicinity of Richmond; it has possibly escaped from some garden.

*LANTANA CAMARA*, L.

## Order VERBENACEÆ.

A rambling prickly undershrub which is found in most tropical countries, but is really a native of tropical America. To Natal it was probably introduced from Mauritius in the early days of the colony, and has now spread all over the coast districts. In India and Ceylon it is very common and quickly takes possession of any abandoned and uncultivated land, but it has one advantage and that is that when well grown if the land be required it can be burnt off with the greatest ease. In Natal it has been attacked by a minute insect which soon destroys the plant upon which it is found.

*LEUCAS MARTINICENSIS*, R. Br.

## Order LABIATÆ.

This is a plant which is not uncommon in tropical and subtropical countries; it has long been known in Natal, usually in neglected fields and as a weed of cultivation, but does not appear to spread very rapidly. In some parts of the Transvaal it is abundant and appears to be difficult to get rid of; in Natal it only occurs as an ordinary weed.

*LITHOSPERMUM ARVENSE*, L.

## Order BORAGINEÆ.

This plant, originally a native of Europe and Eastern countries, has become naturalised in many other places. In Natal it was collected by Gerrard (the specimen is in the Natal Government Herbarium) but it does not appear to have spread rapidly, certainly we have never met with it. In Transvaal it is known as "Nagel Bosch," and Mr. Burt Davy says of it: "A common weed in grain fields, especially on light sandy dry soils, and sometimes causing much damage to grain crops. In Ohio it is said to be an exasperating pest, especially in wheat fields, where little opportunity is afforded to destroy it without destroying the crop."

## LOLIUM TEMULENTUM, L.

## Order GRAMINEÆ.

This is the common "Darnel," originally a native of Europe and North Asia. This grass has been introduced into many countries, including S. Africa. In Natal it was collected by the late Rev. J. Buchanan many years ago, and specimens of it have been sent to the Herbarium for identification. As to the poisonous properties of this grass there appears to be no doubt whatever; the seeds have dangerous narcotic properties, and are said to be most virulent in wet seasons. It has most probably been introduced into Natal mixed with seeds of other agricultural grasses, and it would seem to be more common in Cape Colony than in Natal.

## LYGODIUM VOLUBILE, SW.

## Order FILICES.

This fern is a native of South America and West Indies, but has been found growing luxuriantly in a small wood on the coast lands of Zululand, and specimens of it have been sent to the Herbarium for identification; those who have visited the place say it is undoubtedly wild; how it may have got there it is difficult even to conjecture, it is certainly an alien.

## MELIA AZEDERACH, L.

## Order MELIACEÆ.

This is the tree known all over South Africa as the Syringa; originally a native of the Himalayas, it has now become naturalised in most tropical and sub-tropical countries. It is only in South Africa that it is known as Syringa, in other countries it is known as the "Bead Tree" or "Holy Tree," its seeds having been used for making rosaries; it is also known as "Pride of China." All parts of the tree are bitter and purgative, in large doses poisonous, but the bark appears to be the most virulent. From the seeds a fixed oil is obtained which has been used for burning and for other purposes. The wood is said to be durable and good, but it is seldom used in Natal except as firewood.

## MENTHA VIRIDIS, L.

## Order LABIATÆ.

The "Spearmint" of Britain, also found in Europe and North Africa. It has been collected by the writer twice, in each case in the upper districts and many miles apart. In Europe it is well-known, its leaves are used for culinary purposes. It is probably an escape from cultivation.

## MILLA BORBONICA, Baker.

## Order LILIACEÆ.

A bulbous plant bearing small white flowers, formerly known as *Allium fragrans*. It is a native of Mauritius and Bourbon, and from thence has found its way to Natal. In its native country it is found in great profusion in cultivated

lands, spreads with rapidity, and in some places it is said to be a troublesome weed. In Natal it does not seem to travel far from the place where it was first found, viz., the Botanic Gardens.

NICANDRA PHYSALOIDES, GÆRTN.

Order SOLANACEÆ.

This plant is a native of Peru, and is sometimes called the "Apple of Peru." In 1868 when "Harvey's Genera of S. African Plants" was published, it was only known from Natal and the Eastern districts of Cape Colony. Mr. Burt-Davy says that it was found in Transvaal in 1882 near Lydenburg, in 1891 near Barberton, and now appears to have spread nearly all over the Colony. It is not a very troublesome weed and can easily be destroyed. On account of its rather pretty flowers its growth has been encouraged in some gardens, which may account for its having spread over so large a district, but it is not often found far from cultivated lands.

PARTHENIUM HYSTEROPHORUS, L.

Order COMPOSITÆ.

This plant, originally a native of West Indies and South America, has in some way or other become naturalised in Natal, but so far as known to us has only been seen in the vicinity of Verulam, and is therefore most probably an escape from cultivation. It was gathered in that locality by the writer in 1886, and has been noted several times since then. It is one of the plants that have been recommended as a substitute for quinine. In Mauritius it is known as "Herbe blanche" or "Camomile du pays" and is said to be used as a vermifuge, tonic and febrifuge; our plant was most likely imported from Mauritius. The active principle "Parthenine" has been extracted and used medicinally "in a number of cases in which quinine was unsuccessful or could not be tolerated." (New Commercial Plants and Drugs, by T. Christy, F.L.S., etc.)

PHYSALIS MINIMA, L.

Order SOLANACEÆ.

This plant is closely related to *P. Peruviana*, the well-known "Cape Gooseberry." As the name implies it is a native of Peru; *P. minima* is said to be found in tropical Asia and Australia. In Natal it would seem to be rare. It was collected by Drege near the Umlaas River at about 500 feet altitude, by the writer near Umhlanga at 300 to 400 feet altitude, and by Gerrard without precise locality. In Transvaal it would seem to be more common, and is known as "Kalkoengift" or Healing leaf, and is used as a remedy for veld sores and burns or scalds, the roots also are used as a medicine for "Kalversiekte." They are boiled in water until the water has a dark colour, and a cupfull is given to the calf three times a day until the calf is better. (P. J. Fourie in "Transvaal Agricultural Journal.")

## PHYTOLACCA OCTANDRA, L.

## Order PHYTOLACCACEÆ.

This plant is a native of Japan, and how it came to Natal is unknown. It was first observed here by the late Mr. John Sanderson when the railway cuttings were made between Botha's Hill and Inchanga, and specimens were sent to the writer for identification. Since then it has been carried up the railway line for long distances, having been observed at least as far as Lidgetton, but always, or nearly always, between the railway fences. It has some reputation of being poisonous to cattle, but as the young shoots are in some countries said to be cooked and used as a vegetable this may be doubted; other species of the genus are undoubtedly more or less poisonous.

## RICHARDSONIA PILOSA, H.B.K.

## Order RUBIACEÆ.

Originally a native of tropical America, this plant has in recent years become acclimatised in Natal, especially so in coast districts. In some countries it is said to be a good herb for pastures, especially on sandy soils, in Natal its long roots make it an undesirable plant in grass plots, where it spreads with rapidity; it is said that not only cattle but also fowls are very fond of it. The roots have been used medicinally as "White Ipecachuana."

## RUMEX ACETOSELLA, L.

## Order POLYGONACEÆ.

This plant is a native of Europe, and is popularly known as "Sheep-sorrel." Mr. Burt-Davy, in the "Transvaal Agricultural Journal," says of it: "It is a most troublesome perennial weed among wheat and other crops of short duration, making its growth among the stubble. Unfortunately this weed stands drought remarkably well, and has the power of spreading among veld grasses and of choking them out, so that if it spreads on the open veldt, it is probable that in time it will seriously diminish the carrying capacity of stock farms."

In Natal it has only been seen by the writer twice, once near Mooi River and once near Inchanga, in both cases most likely an escape from cultivated land,

## SILENE GALLICA, L.

## Order CARYOPHYLLACEÆ.

A weed of cultivation, probably a native of South of Europe, it has found its way into many other countries; in Cape Colony it has been known as "Gunpowder weed," and is said to be a troublesome weed; in Natal it was first observed by the writer in 1882 near Durban where horses had been kept during the Zulu War, but it gradually died out, and has not been seen by us since about 1885 or 1886.

## SPERGULA ARVENSIS, L.

## Order CARYOPHYLLACEÆ.

A common European weed in cornfields and cultivated ground generally; it is known as "Spurry" or "Corn Spurry," and seems to prefer light or sandy soil. Though sometimes a troublesome weed, cattle and sheep are said to relish it and it is thought to give a fine flavour to mutton and to enrich the milk of cows, but it is not in England at any rate grown for fodder or pasture. The plant was found by the writer growing luxuriantly near Inchanga, and a specimen is in the Colonial Herbarium; it has also been seen in the upper districts, but does not appear to be common.

## STELLARIA MEDIA, Cyrill.

## Order CARYOPHYLLACEÆ.

This is the well-known "Chickweed," though one or two quite different plants pass under the same popular name; it may easily be distinguished by the fact that the stems have a line of hairs down one side which changes to the other side whenever a pair of leaves is reached. It is a common weed in Europe.

## VERBENA TENARA, Spreng.

## Order VERBENACEÆ.

A low growing plant, apparently annual, about which little is known to us except that it is a native of South America; it was found by Mr. T. R. Sim in the vicinity of Edendale; it was certainly introduced here, but how or when is at present quite uncertain; it has not so far been found in any other locality.

## XANTHIUM SPINOSUM, L.

## Order COMPOSITÆ.

This is the common "Burrweed," a noxious weed believed originally to be a native of Chili, it has now become almost cosmopolitan; in South Africa it is of comparatively recent introduction, since the genus *Xanthium* does not appear either in the *Flora Capensis* or Harvey's *Genera*, which was published in 1868, but now it is found almost all over South Africa, and in each of the colonies laws have been passed for its extermination, but people do not seem to realise that if burrs have been formed, then to cut down the plants and leave them is simply useless, they should be burned off at once; if no burrs have formed they may be taken up by the roots and left on the spot with safety.

## XANTHIUM STRUMARIUM, L.

## Order COMPOSITÆ.

Very closely related to *X. spinosum*, but without spines or light coloured markings on the leaves; its burrs are quite as injurious to wool as are those of *X. spinosum*, but it is of more recent introduction having appeared here after the Zulu War

of 1880, and was most likely introduced from Mauritius, since I find that in the Flora of Mauritius and Seychelles published in 1877, it is said to be frequent in waste ground, while in the Flora of Australia published in 1876 it does not appear. It is now known in Australia as "Cockle burr" or "Noogoora" burr and has done considerable damage. The Government Botanist of Queensland says that he remembers when an expenditure of £50 would have stamped it out, but that now it would take untold riches to do it. This plant is unfortunately common in the vicinity of Durban, and has spread almost over the colony; the attention of Government was called to it by the writer some 20 years ago, but still it flourishes.

I have now only to say in conclusion that Miss Franks is still at work in the Herbarium, and she has made all the drawing for "Natal Plants" since 1906, and many of those published previously, and the whole of the drawings of the grasses in Vol V are her work, and she is now a most efficient assistant in all the work of the Herbarium.

#### J. MEDLEY WOOD.

Since the publication of the Supplement to the "Revised List of the Flora of Natal," by J. Medley Wood, the following names have been added:—

##### GERANIACEÆ.

*Pelargonium Woodii*, N. E. Brown. This plant was brought from the slopes of the Drakensberg Mountains and has flowered in the Botanic Gardens, Durban.

##### LEGUMINOSÆ.

*Indigofera corniculata*, E. M., Sydenham, near Durban, 300 to 500 ft. alt., March, Wood 11409.

##### ONAGRARIÆ.

*Epilobium natalense*, Haussk. Collector and locality not known to us.

##### COMPOSITÆ.

*Ambrosia senegalensis*, D.C., Camperdown. 2,000 to 3,000 ft. alt. March, Miss Franks, (Wood 11660).

##### ERICACEÆ.

*Erica Wyliei*, Bolus. Giants Castle, 10,000 ft. alt. October, Wylie (Wood 10660).

##### OLEACEÆ.

*Jasminium Wyliei*, N.E.B. Nkandhla, Zululand, 4-5000 ft. alt. Wylie, October, (Wood 8860).

## ASCLEPIADEÆ.

*Schizoglossum decipens*, N.E.B., var. *flavum*, N.E.B. Niginya, 6,000 ft. alt. October. Wylie (Wood 11206).

## GENTIANEÆ.

*Chironia humilis*, Gilg. var. *zuluensis*, Prain. Ginginhlovu, Zululand, 100-200 ft. alt. Wylie (Wood 11355).

## LABIATAÆ.

*Plectranthus Bolusii*, T. Cooke. Weenen, 2,000-3,000 ft. alt. April, Wood 4488.

*P. Cooperi*, T. Cooke. Byrne, 2,000-3,000 ft. alt. April, Wood 1843.

*P. densiflorus*, T. Cooke. Mooi River, 3,000-4,000 ft. alt. Wood 4475.

*P. Pegleræ*, T. Cooke. Zululand, Gerrard 1235.

*P. villosus*, T. Cooke. Entumeni, 1,000-2,000 ft. alt. Wood 3955, April.

*P. zuluensis*, T. Cooke. Zululand, Gerrard 1675.

## NYCTAGINEÆ.

*Boerhaavia bracteata*, T. Cooke, without precise locality, Gerrard 1787.

## LILIACEÆ.

*Alœ macracantha*, Baker. Drakensberg.

*Alœ Marlothii*, A. Berger. Zululand, Wood.

*Kniphofia Wyliei*, N.E.B. Entumeni, 2,000-3,000 ft. alt. Wylie (Wood 8996).

## CYPERACEÆ.

*Cyperus Papyrus*, L. Zululand, T. R. Sim.

*Mariscus capensis*, Schrad. Cedara, 3,000-4,000 ft. alt. Fisher.









