The Flora of Natal and Zululand

J. W. BEWS.
To Senator the Hon. C. G. SMITH.

THROUGH WHOSE GENEROSITY THE PUBLICATION OF THIS WORK WAS RENDERED POSSIBLE.
AN
INTRODUCTION TO
THE
FLORA OF NATAL
AND ZULULAND

BY
J. W. BEWS, M.A., D.Sc.
Professor of Botany in the Natal University College.

1921:
Printed and Published by
CITY PRINTING WORKS, Bank Street,
PIETERMARITZBURG.
The following work has been written for the purpose of assisting the study of plant ecology and botanical survey work in Natal. The "Handbook" published by the late Dr. Medley Wood is now no longer up to date, and is also out of print, and his "Revised List," with its supplements, is also incomplete, as well as difficult to procure. A general ecological account of the Natal vegetation, to a large extent compiled from my own previous writings, has been prepared, and it was intended that it should be included as part of the present work, but for various reasons it has been thought advisable to defer publication of this part of the manuscript. This has enabled the main section to be published in a more compact form. Ecological notes have been added in the case of the principal species to the records of distribution. Care has been taken to make the latter as complete and accurate as possible. Various Zulu names have also been included.

The works enumerated in the Bibliography have been consulted throughout, and due acknowledgment of indebtedness must be made in particular to Medley Wood's various lists, to the "Flora Capensis," to Engler's "Flanzefamilien," and Thonner's "Flowering Plants of Africa." In the key to the families the last mentioned work was found particularly helpful, since, after due consideration, it was decided that the main principles of sub-division adopted by Thonner were more useful and easier to follow than any that could be substituted, without departing altogether from the natural system. The main groups are decided by the characters of the perianth, and the sub-divisions by the characters of the ovary and ovules. In many cases where there is a likelihood of mistakes being made, the family is included under more than one division.

The keys given in the Flora Capensis have also been drawn upon freely. Considerable simplification throughout has been rendered possible, chiefly by the fact that a smaller area is dealt with. An attempt has been made to bring the nomenclature as up to date as possible, though it is hardly possible to attempt anything approaching finality in this respect until many further monographs have been published by specialists on various families and genera. As it is, the changes that have been found
necessary on Medley Wood's "Revised List," as well as the additions, are considerable. The Flowering Plants of Natal, as now arranged, belong to 148 families, and include 901 genera and 3,786 species, as compared with 128 families, 865 genera, and 3,310 species as given by Medley Wood.

My thanks are due to Mrs. Bolus for putting the Bolus Herbarium and Library at my disposal, and to Dr. R. Marloth for the use of his private library.

J. W. BEWS.

Natal University College,
May, 1921.
INTRODUCTION.

The history of Botany in Natal extends over a period of less than a century, though many of the Natal plants were collected more than a hundred years ago in the Cape Colony by Thunberg, Burchell and others. The first Botanist of note to visit Natal was J. F. Drège, who, in the year 1832, travelled northwards together with Dr. Andrew Smith, along the Natal coast belt as far as the Umgeni north of Durban. Drège spent eight years altogether in botanical exploration in South Africa, and when he left he took with him, according to Meyer, about 200,000 dried specimens belonging to nearly 8,000 distinct species. About the time that Drège visited Natal, Ecklon and Zeyher were collecting in the Eastern parts of the Cape Colony, but they did not get further east than the Kei River.

In 1839 Ferdinand Krauss visited Natal and collected chiefly on the coast belt. In his account of the flora of the Cape and Natal (1846) he divides Natal into the three botanical sub-divisions still recognised, viz., Coast belt, Midlands, and Mountains (Drakensberg).

Other early Natal collectors were Dr. Gueinzius, Vance, Williamson, R. W. Plant and E. Armitage. During the twenty years following the colonisation of Natal by white settlers, botanical collecting made rapid strides, and when the first volume of Harvey and Sonder’s “Flora Capensis” was published in 1859, acknowledgment was made to John Sanderson, of Durban (after whom the genus Sandersonia is named), for valuable collections; to Dr. Sutherland, Surveyor-General of Natal, for small, but carefully selected, collections made in various parts of his district during hasty professional visits, in one of which he discovered Greyia sutherlandi; to R. Hallack, of Port Elizabeth, for interesting information on plants of the Natal Colony, accompanied by specimens. During the same period, Dr. Pappe, the Cape colonial botanist, was forwarding specimens, not all collected by himself, to Harvey, some of which, doubtless, may have come from Natal.

In the second volume of the Flora Capensis, published in 1861—2, large collections are acknowledged from W. T. Gerrard and M. J. McKen, Curator of the Botanical Gardens at Durban, jointly and severally. The collections must have been sent sub-
sequent to the publication of Volume I., since many of the new
discoveries are dealt with in the addendum to the second
volume, and in the second volume of Harvey's "Thesaurus,"
published in 1863. The publication of these works seems to
have stimulated botanical exploration and collecting, for in the
preface to Vol. III. of the Flora Capensis (1864—5) it is stated
that large collections continued to be received from Sanderson,
Gerrard and McKen, "the last-named gentleman having con-
tributed within two years over one thousand species of plants."
George Fannin, of the Dargle, also commenced contributing, his
collections including the beautiful new Anemone (A. fanninii).
T. Cooper also collected largely in Natal in 1861—2.

By this time MacOwan had commenced his botanical teach-
ing at the Cape, and through his pupils, as well as by his own
direct labours, botany in South Africa was rapidly advanced.
Dr. H. Bolus is another to whom South African Botany owes
much.

In 1873—5 F. Oates travelled from Maritzburg northwards
through Ladysmith, Newcastle, and the Transvaal to Matabele-
land. In an appendix to his published journal, the plants col-
lected by him were dealt with by R. A. Rolfe.

In the years 1875—7 A. Rehmann made a journey from the
Cape via Kimberley, Bloemfontein, Harrismith and Maritzburg
to Durban. He visited Medley Wood at Inanda. His collec-
tions were partly worked up by Szyszylowicz. (1887—8).

Before this the Rev. John Buchanan had become an enthusi-
astic and extensive collector. He devoted special attention to the
ferns. J. Medley Wood had also commenced his botanical
career. His name will always be remembered as that of the
chief pioneer botanist in Natal. He was born on December 1st,
1827, and died at the advanced age of 88 years on August 26,
1915. He spent over 60 years in Natal, and he was active up to
the end of his long life. For many years he lived at Inanda,
and it was there his early botanical collecting was done. He was
closely associated at that time with Buchanan. In 1882 he suc-
cceeded McKen as Curator of the Durban Botanical Gardens and
Herbarium, and he remained at his post for 33 years. He pub-
lished several successive lists of the flora, and in his "Natal
Plants" 600 species were illustrated. In association with Maurice
S. Evans, who also collected widely, or with his assistant, Miss
Franks, or independently, Wood described numbers of new
species. He forwarded to Kew and other European herbaria
large numbers of new species to be worked up by specialists.
He built up the excellent Durban Herbarium. He was assisted at
various times by Miss Franks, Messrs. Haygarth and Wylie, the last mentioned succeeding him as curator of the Durban Botanical Gardens.

Space does not permit of more than a very brief mention of the numerous other collectors or writers on the Botany of Natal. Further details may be learned from the list of publications which follows. Only workers in, or visitors to Natal, are mentioned, but it should be borne in mind that the Botany of Natal owes a great deal to workers overseas especially the staff of the Herbarium at Kew.

The following list is, it is hoped, fairly complete, though collectors who have contributed only occasional specimens are omitted. Fourcade (who was employed by the Government to investigate and report on the forests of Natal), Justus Thode (who collected and wrote on the vegetation of Natal. (See Bibliography), R. Schlechter (who collected extensively and added large numbers of new species). O. Kuntze, A. Engler, R. Marloth, Mrs. Fanning, Mrs. Saunders, Miss Owen, Mrs. Hutton, Miss Armstrong, Miss G. Edwards, Mrs. Bolus, Dr. E. Doidge, Mrs. Stainbank, H. Bolus, A. Bolus, G. Mann, F. Bachmann, A. Panther, H. G. Flatagan, W. Tyson, H. Junod, F. Wilms, H. Rudatis, Dr. Pole-Evans, Dr. Dimock-Brown, Dr. van der Byl, Dr. Phillips, J. A. Henkel, A. O. D. Mogg, Dr. Schonland, Messrs. Krook, Stone Mariott, Aitken, Gale, Boyle, Allison, Large, Davis, St. George, Jenkinson, Nelson, Baines, Reid, Eyles, Green, Mason, Krebs, Fernando, Symons, Groom, Pearse, Grant, Hewitson, Carnegie.

It may be well to state that the above names are not arranged in any particular order, chronological or otherwise.

Dr. T. R. Sim, formerly Conservator of Forests for Natal, has contributed in his various published works a great amount of information regarding the flora of S. Africa in general, including that of Natal. He has made the trees and shrubs, the ferns and the mosses and hepatics his special objects of study, but he has collected extensively the other plants as well. He has lately very generously presented his Herbarium of Flowering Plants to the Botany Department of the Natal University College.

The writer of this work has since 1910 devoted most of his attention to the study of the vegetation of Natal, chiefly from the ecological standpoint, a field that had hitherto remained untouched so far as Natal was concerned.
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KEY TO THE FAMILIES.

2. Leaves pinnately compound, large.  1 CYCADACEAE.  
3. Leaves simple.  
   Flowers usually 3-merous. (MONOCOTYLEDONEAE.)  5. Vascular bundles in a ring. Leaves usually net veined.  
   Flowers usually 5-merous. (DICOTYLEDONEAE.)  30  
5. Perianth wanting or rudimentary, or (in Potamogeton) anthers with sepal-like appendages.  
6. Perianth present, or rarely present in male, wanting in female flowers.  11.  
7. Flowers in the axils of chaff-like bracts arranged in spikelets.  7.  
   Flowers not in the axils of chaff-like bracts, etc.  8.  
8. Stems solid. Leaf sheaths usually not split. Seed not adnate to the pericarp. Anthers usually basi-fixed.  10 CYPERACEAE.  
9. Stems usually hollow. Leaf sheaths split. Seeds adnate to the pericarp. Anthers versatile.  9 GRAMINEAE.  
10. Flowers surrounded by hairs. Seed coat not fleshy.  4 TYPHACEAE.  
   Ovary inferior or half inferior.  24.  
12. Aquatic herbs with carpels 3—8, distinct.  6 APONOGETONACEAE.  
13. Perianth membranous, green or leathery, not petaloid.  14.  
   Perianth, at least the inner whorl, petaloid.  20.  
14. Flowers in spadices.  15.  
   Flowers not in spadices.  16.
15. Woody plants.
   Herbaceous plants.

   (Triglochin) 7 SCHEUCHZERIACEAE.
   Anthers intorse. Seeds endospermic.

11 PALMAE.
12 ARACEAE.

15 RESTIONACEAE.

18. Flowers monoecious in heads surrounded by an involucre.

17 ERIOCaulACEAE.


20 LILIACEAE.

   (Barberetta) 21 HAEMODORACEAE.
   Stamens 6.

22. Endosperm mealy. 1 ovule in each cell. Fruit a berry. Leaves ending in a tendril. (Flagellaria).

14 FLAGELLARIACEAE.


16 XYRIDACEAE.

   Stamens more than 1.

25. Ovary 1 celled. Staminodes small or 0.

27 ORCHIDACEAE.

26. Stamens 2-4, usually 3, sometimes with sterile ones as well.
   Stamens 5-6.

27. Flowers unisexual. Ovary 1 celled or incompletely 2 or more celled. (Lagarosiphon) 8 HYDROCHARITACEAE.

   Stamens 6.

29. Flowers unisexual. Stems usually climbing.

23 DIOSCOREACEAE.

30. (4) Perianth wanting or simple or consisting of calyx and corolla. Petals, if present, free or cohering slightly, but free at the base.
   (ARCHICHLAMYDEAE) 31.
Perianth of calyx and corolla, with petals united at least at the base. (METACHLAMYDEAE or SYMPETALAE).

275

31. Perianth wanting or simple.
   Perianth differentiated into calyx and corolla. 32. Perianth absent in the hermaphrodite and female flowers, but sometimes replaced by bracteoles. 33. Perianth present in the hermaphrodite and female flowers. 42.

33. Ovary 1 celled.
   Ovary 2-4 celled. 40.

34. Ovule 1.
   Ovules numerous. 39.

35. Ovule pendulous (Figs. and Indian Hemp). 32 MORACEAE.
   Ovule basal or attached by a basal funicle. 36.

36. Ovule incurved. Embryo curved. Stigmas 2-5. Fruit dry. Flowers usually in glomerules or spike-like cymes. 39 CHENOPODIACEAE.
   Ovule straight. If fruit dry, then stigma 1. 37.

37. Flowers in fascicles. Stigma 1. Fruit dry. 33 URTICACEAE
   Flowers in spikes. Fruit succulent. 38.

38. Shrub. Flowers unisexual, stigmas 2. Fruit a drupe.
   Leaves extipulate. (Myrica). 30 MYRICACEAE.
   Herbs or under shrubs. Flowers hermaphrodite, or, if unisexual, then leaves stipulate. Fruit a berry. 28 PIPERACEAE.

39. Trees or Shrubs (Salix).
   Aquatic Herbs (Hydrostachys). 59 HYDROSTACHYACEAE.

40. Numerous ovules in each ovary cell. Styles 3-4. 64 MYROTHAMNACEAE.
   Ovules solitary in each ovary cell. 41.

41. Ovary 2-3 celled.
   Ovary 4 celled. Styles 2 stamen 1. 80 EUPHORBIACEAE.

42. (32) Ovary superior, or nearly so.
   Ovary inferior or half inferior. 81 CALLITRICHACEAE.

43. Ovary 1 entire or lobed.
   Ovaries 2 or more, distinct or united at the base only. 93.

44. Ovary 1 celled.
   Ovary 2 or more celled. 45.

45 Ovule 1.
   Ovules 2 or more. 46.

46. Ovule erect or ascending or attached by basal funicle.
   Ovule pendulous or descending. 47.

47. Ovule straight.
   Ovule incurved or inverted. 48.

48. Styles 2-4. Fruit a nut. Herbs. 38 POLYGONACEAE.
   Style 1 or none. Stigmas 1 or more.
49. Leaves exstipulate. Stigmas 2. **(Myrica).**

Leaves stipulate, rarely exstipulate and then stigma 1. **50.**

50. Juice milky. Trees. **32 MORACEAE.**
Juice not milky. Herbs and shrubs. **33 URTICACEAE.**

51. Ovule incurved. Embryo curved. **52.**
Ovule inverted. Embryo straight or nearly so. **54.**

52. Perianth with valvate and folded aestivation, lobed. **41 NYCTAGINACEAE.**
Base of perianth enlarged in the fruit, enclosing the nut.
Flowers usually rather conspicuous. **57 MONIMIACEAE.**
Perianth not with valvate and folded aestivation, etc.
Flowers inconspicuous. **53.**

53. Perianth more or less scarious or papery. Flowers with bracteoles. **40 AMARANTACEAE.**
Perianth more or less herbaceous or membranous. Stigmas 2—5. **39 CHENOPODIACEAE.**

54. Leaves stipulate. **67 ROSACEAE.**
Leaves exstipulate. **55.**

55. Stamens 4, attached to the perianth segments. **34 PROTEACEAE.**
Stamens 5-15 free from perianth. Filaments united at the base. **(Pisonia) 41 NYCTAGINACEAE.**

56. (46) Ovule straight. **57.**
Ovule incurved or inverted. **58.**

57. Perianth 4 parted. Stamens 4. Trees or shrubs. **34 PROTEACEAE.**

58. Leaves stipulate. **59.**
Leaves exstipulate. **61.**

59. Anthers 3-4 celled. **(Macaranga). 80 EUPHORBIACEAE.**
Anthers 2 celled. **60.**

60. Shrubs or trees. Juice not milky. **31 ULMACEAE.**
Figs with milky juice (Ficus) or herbs. **32 MORACEAE.**

61. Anthers opening by valves. Perianth segments 4 or 6. **52 LAURACEAE.**
Seed endospermic. Trees or shrubs. **62.**
Anthers opening by longitudinal slits.

62. Stamens numerous. Flowers unisexual. **(Xymalos.) 57 MONIMIACEAE.**

Stamens 8—10. Flowers hermaphrodite. **106 THYMELAEACEAE.**

63 (45) Ovules basal or inserted on a central placenta. **64.**
Ovules suspended from apex of cell or parietal. **67.**

64. Perianth of 2—3 minute scales. **(Sphaerothylax) 58 PODOSTEMONACEAE.**
Perianth of 4—5 segments. **65.**

65. Leaves alternate. Stamens 5. **40 AMARANTACEAE.**
Leaves opposite or whorled. **66.**
66. Stamens 5 or more.
   Stamens 1—2 (Pollichia).  
43 AIZOACEAE.  
45 CARYOPHYLLACEAE.

67. (63) Ovules 2 suspended side by side. Fruit usually 1 seeded.  
   Ovules 2 one above the other or more than 2.  
   68. Stamens as many as and alternate with perianth segments.  
   Leaves exstipulate.  
   88 ICACINACEAE.  
   Stamens opposite or more than perianth segments.  
   69. Flowers hermaphrodite. Leaves exstipulate.  
36 OLACACEAE.  
   Flowers unisexual. Leaves stipulate.  
   80 EUPHORBIACEAE.  
70. Ovules attached to a single placenta. Fruit a legume.  
   69 LEGUMINOSAE.  
   2 or more placentas, or if 1 then fruit a berry.  
100 FLACOURTIACEAE.  
   Perianth segments valvate, or if imbricate, then ovary stalked.  
72. Stamens perigynous. Ovary sessile or short stalked. Leaves exstipulate.  
   Stamens hypogynous, or if perigynous, ovary long stalked and leaves stipulate.  
55 CAPPARIDACEAE.  
73. (44) Ovules 1 in each ovary cell.  
   Ovules 2 or more in each cell.  
   74. Ovules erect or ascending.  
   Ovules pendulous or descending.  
75. Style 1 with 1-3 stigmas. Leaves pinnate exstipulate.  
   89 SAPINDACEAE.  
   Styles 2-10 free or united below. Leaves undivided or lobed.  
76. Trees or shrubs. Leaves alternate stipulate.  
   92 RHAMNACEAE.  
   Herbs or undershrubs or shrubs with leaves exstipulate.  
77. Flowers solitary or in cymes.  
   43 AIZOACEAE.  
   Flowers in racemes or spikes (Phytolacca).  
42 PHYTOLACCACEAE.  
78. (74) Flowers unisexual or polygamous.  
   Flowers hermaphrodite.  
   79. Stamens perigynous; sometimes with staminodes. Ovary 2 celled.  
   (Trichocladus) 66 HAMAMELIDACEAE.  
   Stamens hypogynous. Ovary usually 3 celled.  
   80 EUPHORBIACEAE.  
80. Trees or shrub (Peddiea).  
   Herbs or undershrubs.  
106 THYMELAEACEAE.  
81. Flowers very small. Perianth segments 4. Stamens 2, 4, or
KEY TO THE FAMILIES.

6, hypogynous. Ovary cells 2. **(Lepidium).**

54 **CRUCIFERAE.**

Stamens perigynous.

82. (73) Flowers unisexual or polygamous. **AIZOACEAE.**

Flowers hermaphroditic.

83. Style 1 with 2—6 stigmas. Leaves alternate exstipulate. **SAPINDACEAE.**

84. Perianth segments imbricate or open in bud. If valvate, then filaments free.

85. Fruit a berry or drupe. Stamens 10 or more. Leaves alternate. **FLACOURTIACEAE.**

86. Raphe dorsal. Leaves opposite exstipulate. Stamens 6. **BUXACEAE.**

87. (82) Ovary long stalked. Seeds exendospermic. **CAPPARIDACEAE.**

88. Stem herbaceous or woody at base only. **LYTHRACEAE.**

89. Style 1 or 1 sessile stigma. Seeds exendospermic.

55 **PODOSTEMONACEAE.**

90. Stamens more than 1. Not water plants. **AIZOACEAE.**

91. Perianth segments united. **TILIACEAE.**

92. Perianth segments free or nearly so. Stamens hypogynous or nearly so.

93. (43) Ovules 2 or more in each carpel. **STERCULIACEAE.**

Ovule 1 in each carpel. **LYTHRACEAE.**

94. Ovule erect. Perianth regular 4—5 parted. Fruit succulent. **PHYTOLACCACEAE.**

Leaves undivided exstipulate. **ROSACEAE.**

95. Perianth segments united at least in the female flowers. Stamens perigynous. **ROSACEAE.**
Perianth segments free or nearly so. Stamens hypogynous.

96. Flowers unisexual. Fruits fleshy. **49 MENISPERMACEAE.**
Flowers hermaphrodite or polygamous. Fruits dry. **48 RANUNCULACEAE.**

97. (42) Shrubs parasitic on stems of trees and shrubs. **37 LORANTHACEAE.**

Non parasitic or parasitic only on roots. 98.

98. Ovary 1 celled.
   Ovary 2 or more celled.
   Ovules 2 or more.
100. Ovules erect, ascending, attached by an erect funicle or adnate to the ovary wall.
   Ovule pendulous or descending.
   Ovule inverted. Flowers usually in heads. Stamens alternating with perianth segments. **33 URTICACEAE.**

102. Flowers unisexual.
   Flowers hermaphrodite.
103. Stamens 2. Leaves large radical. (Gunnera).

Stamens 3—5. Leaves alternate.

104. (99) Stamens 8 or 10.
   Stamens 3—6.
   Style simple or wanting.

106. (98) Ovule 1 in each ovary cell.
   Ovules 2 or more in each ovary cell.
107. Ovules erect or ascending.
   Ovules pendulous or descending.
108. Leaves opposite or whorled.
   Leaves alternate.
109. Flowers in umbels or heads.
   Flowers solitary or in axillary fascicles or spikes. Water plant. (Myriophyllum). **114 HALORRHAGACEAE.**

110. Flowers unisexual styles 2—6. (Begonia).

111. Ovary superior or nearly so.
   Ovary inferior or half inferior.
112. Sepals 4, petals 4. Stamens 6 (4 longer, 2 shorter). Ovary 1—2 celled, or transversely septate. Herbs or undershrubs. **54 CRUCIFERAE.**
Stamens not 6, or if 6 then not 4 longer and 2 shorter, or flower different otherwise. 113.

113. Ovary 1. Entire or lobed. 114.

Ovaries 2 or more distinct, or united at the base only. 226

114. Ovary 1 celled, sometimes with incomplete partitions or containing 1 or more empty rudimentary cells besides the fertile one. 115.

Ovary 2 or more celled, the partitions sometimes not quite reaching the apex; or one cell only fertile, the others empty, but well developed. 156.

115. Ovule 1.

Ovules 2 or more. 116.

116. Ovule erect or ascending, or attached by a basal funicle. 117.

Ovule pendulous or descending. 122.


Leaves exstipulate. 118.

118. Stigmas 2—3. Flowers regular. 45 CARYOPHYLLACEAE.

Stigma 1. 119.

67 ROSACEAE.

119. Style basal or nearly so.

Style terminal, or nearly so. Stamens 5—10. 120.

120. (117) Sepals more than 2.

Sepals 2. 121.

121. Leaves undivided. Style 3 parted.

Leaves dissected. Style simple. 122.

122. (116) Leaves stipulate.

Leaves exstipulate. 123.

123. Flowers irregular. Style simple.

Flowers regular. Styles 3—4 (Erythroxylon). 69 LEGUMINOSAE.

73 ERYTHROXYLACEAE.

124. Flowers unisexual. Stamens opposite or more than the petals. Leaves simple or digitate.

49 MENISPERMACEAE.

Flowers hermaphrodite or polygamous, or if unisexual stamens alternating with the petals or leaves pinnate. 125.

125. Style simple. Stigma entire. Leaves undivided. 106 THYMELAEACEAE.

83 ANACARDIACEAE.

Stigma lobed. Leaves pinnate. 126.

126. (115) Ovules 2.

Ovules 3 or more. 127.

127. Ovules or their funicle erect or ascending.

Ovules or their funicle pendulous or descending. 133.

128. Ovules one above the other. If not, then flowers irregular and style terminal.

Ovules side by side. Flowers regular. If not, then style basal. 130.
   96 STERCULIACEAE.
   Flowers irregular; if not, then stamens more than 5.
   69 LEGUMINOSAE.

130. Leaves compound. Climber (Cnestis).
   68 CONNARACEAE.
   Leaves simple, undivided, or, if dissected, then herbs. 131.

131. Styles 2. Leaves opposite. Herbs or under shrubs.
   45 CARYOPHYLLACEAE.
   Style 1. Stigma 1. If leaves opposite, then shrubs or trees.
   132.

132. Leaves alternate. Style basal.
   Leaves opposite. Style terminal or nearly so.
   67 ROSACEAE.

133. Ovules one above the other. If not, flowers irregular, with
   9—10 stamens.
   69 LEGUMINOSAE.
   134.

134. Ovules attached laterally. Stamens 3—5. Flowers usually
    unisexual. Leaves exstipulate, usually compound.
   75 RUTACEAE.
   Ovules apical, rarely lateral, and then stamens more than 5.
   Leaves simple.
   135.

   88 ICACINACEE.
   Stamens 10 or more. Leaves stipulate.
   136.

136. Stamens 10, styles or stigmas 3—4.
   73 ERYTHROXYLACEAE.
   Stamens 12 or more.
   137.

   67 ROSACEAE.
   Styles 2—6 or style 1, stigmas 2, and then stamens more than
   100 FLACOURTIACEAE.
   20.

138. (126)Ovules basal or attached to a central placenta.
   139.

139. Ovules basal.
   Ovules attached to a central placenta.
   140.

140 Style or sessile stigma 1 entire. (Pleurostilina).
   85 CELASTRACEAE.
   Styles stigmas or stigma lobes 2—6.
   45 CARYOPHYLLACEAE.

141. Stamens 5 opposite petals. Fruit 1 seeded. (Embelia).
   119 MYRSINACEAE.
   Stamens alternating with petals or fewer or more.
   142.

142. Calyx valvate. Style 1. Stigmas 1 or 2.
   107 LYTHRACEAE.
   Calyx imbricate. Style 1 with 3 or more stigmas or styles 2 or
   more.
143. Sepals 2, leaves alternate.  44 PORTULACACEAE.
   Sepals 4—5. Leaves opposite.  45 CARYOPHYLLACEAE.
144. (138) Ovules attached to 1 placenta.  69 LEGUMINOSAE.
   Ovules attached to 2 or more placentas.  145.
145. Herbs with glandular hairs and leaves in rosettes.
   Insectivorous.  (Drosera).  57 DROSERACEAE.
   Not insectivorous herbs with glandular hairs.  146.
146. Herbs or undershrubs with irregular flowers in spikes or
   racemes. Alternate stipulate leaves and ovary open at
   the top.  (Oligomeris).  56 RESEDACEAE.
   Ovary not open at top, etc.  147.
   53 PAPAVERACEAE.
   If sepals 2 or 3 and petals 4 or 6 then stem woody.  148.
148. Fertile stamens as many as petals or fewer.
   Fertile stamens more than petals.  153.
149. Fertile stamens 2, 4 or 6. Flowers hermaphrodite.
   55 CAPPARIDACEAE.
   Fertile stamens 5, or if 4 or 6, flowers unisexual.  150.
150. Sepals 3 united. Petals 3 or climbing plants with unisexual
   flowers.  101 PASSIFLORACEAE.
   Sepals free or nearly so, or not 3, or not climbing plants.  151.
   97 OCHNACEAE.
   Staminodes wanting.  152.
152. Leaves stipulate. Flowers more or less irregular. Placentas
   3.
   62 PITTSPORACEAE.
153. Leaves usually pinnate. Filaments united throughout their
   whole length.  77 MELIACEAE.
   Leaves simple or digitate. Filaments free or united in
   bundles, or at the base only.  154.
154. Filaments united in 3—5 bundles. Leaves opposite undivided
   exstipulate.
   Filaments free or united at the base only.  155.
155. Sepals 4 or ovary long stalked.  55 CAPPARIDACEAE.
   Sepals not 4 or ovary sessile.  100 FLACOURTIACEAE.
156. (114) Ovule 1 in each ovary cell.  157.
   Ovules 2 or more in each ovary cell.  180.
157. Ovules erect or ascending.  158.
   Ovules pendulous, descending or horizontal.  167.
158. Disc outside the stamens, sometimes one-sided or broken up
   into several glands. Leaves alternate compound, or if
   simple, then stamens 8—10.  159.
   Disc or glands within or between the stamens or wanting,
or if outside then leaves simple and stamens 4—6. 160.


90 MELIANTHACEAE.

Flowers unisexual or polygamous. Seeds exendospermic.

89 SAPINDACEAE.

160. Petals and stamens hypogynous.

   Petals and stamens more or less perigynous. Leaves simple stipulate. Shrubs and trees. 166.

161. Sepals 3. Petals 3 or 6. Shrubs or trees. 50 ANONACEAE.

   Sepals 4—5, rarely 2. Petals 3—5. 162.

162. Sepals 5 valvate in bud. Leaves simple stipulate. 163.

   Sepals imbricate in the bud, or if valvate, then only 2 leaves. Exstipulate. 164.

163. Anthers 1 celled. Stamens numerous and united, ovary 3 or more celled.

   Anthers 2 celled, stamens 5, or if more, ovary 2 celled.

95 MALVACEAE.

164. Leaves opposite.

   Leaves alternate. 165.

165. Leaves pinnate. Shrubs or trees.

   Leaves simple. Herbs or undershrubs (Limeum). * 

43 AIZOACEAE.

166 (160) Stamens opposite petals.

   Stamens alternate with petals. 167.

167. (157) Flowers unisexual.

   Flowers hermaphrodite or polygamous. 168.

168. Leaves compound. Shrubs or trees. 83 ANACARDIACEAE.

   * Leaves simple. 169.

169. Ovary slightly sunk, 2 celled, styles 2. (Trichocladus).

66 HAMAMELIDACEAE.

   Ovary wholly superior, usually 3 celled.

80 EUPHORBIACEAE.


79 POLYGALACEAE.

   Flowers regular or nearly so, or if distinctly irregular, then leaves compound. 171.

171. Filaments free.

   Filaments united at least at the base. 172.

172. Disc present ring, cushion or cup shaped. 173.

   Disc absent, leaves simple. 175.

173. Leaves stipulate Herb. (Tribulus). 74 ZYGOPHYLLACEAE.

   Leaves exstipulate shrubs or trees or undershrubs. 174.

174. Flowers polygamous.

   Flowers hermaphrodite. Leaves gland dotted. 83 ANACARDIACEAE.

75 RUTACEAE.
175. Sepals united into a minute 4-5 toothed calyx.
   (Ximenia) 36 OLACACEAE.
   Sepals free or united at base only. (Climbers.)
   78 MALPIGHIACEAE.
   95 MALVACEAE.
   177.
177. Style 1 with 1 or 2 stigmas. Leaves compound extipulate.
   71 MELIACEAE.
   Styles 2—5, free or united, but with stigmas not contiguous.
   178.
178. Stamens 5.
   Stamens 10—12.
   71 OXALIDACEAE.
180. (156) Ovules 2 in each ovary cell. 181.
   Ovules 3 or more in each ovary cell. 208.
181. Style 1, or styles 2 or more, united to base of stigmas, or 1
   sessile stigma.
   Styles 2 or more, free or united below, or 2 or more sessile
   stigmas. 182.
182. Stamens as many as, or fewer than the petals. 183.
   Stamens more than the petals. 189.
183. Stamens as many as, and opposite the petals. 184.
   Stamens alternate with the petals or fewer. 185.
184. Petals valvate. Filaments free. Ovary 2 celled. Fruit a
   berry. 93 VITACEAE.
   Petals imbricate. Filaments not free. Ovary 2 or more
   celled. Fruit a capsule. 96 STERCULIACEAE.
185. Shrub with 4 large spines in leaf axils. Flowers dioecious.
   (Azima). 87 SALVADORACEAE.
   Leaf axils not with 4 large spines. 186.
   86 HIPPOCRATEACEAE.
   Stamens not 3 with ovary 3 celled. 187.
187. Leaves gland dotted, extipulate, but sometimes with axillary
   spines. 75 RUTACEAE.
   Leaves not gland dotted, stipulate. 188.
188. Sepals valvate, coloured, hooded at the point, and dorsally
   mucronate. (Triumfetta) 94 TILIACEAE.
   Sepals with imbricate or open aestivation. 85 CELASTRACEAE.
189. Trees with thick resinous bark. Receptacle concave, sepals
   4, petals 4.
Ovary 2—3 celled.  \((Commiphora) 76 BURSERACEAE.\)
Plants differing from *Commiphora* in one or more respects. 190
190. Trees with opposite or whorled, stipulate leaves and both
sepals and petals valvate or induplicate-valvate in the
bud.  \(109 RHIZOPHORACEAE.\)
Leaves alternate or exstipulate or either sepals or petals or
both imbricate in the bud or herbs. 191.
191. Stamens numerous, all united. Anthers 1 celled.

\(95 MALVACEAE.\)
Stamens free, or if united, then anthers 2 celled. 192.
192. Leaves opposite undivided exstipulate. Stamens numerous.

\(98 GUTTIFERAE.\)
Leaves alternate or stipulate or stamens definite. 193.
193. Filaments united at least at the base.
Filaments free or united in bundles. 194.
194. Sepals valvate in the bud.  \(96 STERCULIACEAE.\)
Sepals imbricate in the bud. 195.
195. Stigmas 5. Herbs or undershrubs. 70 GERANIACEAE.
Stigmas 1—3. Trees or shrubs. 77 MELIACEAE.
196. Herbs with 5 lobed, 5 celled beaked ovary. Leaves stipulate.

\(70 GERANIACEAE.\)
Trees or shrubs, or if herbs then ovary not 5 lobed, 5 celled
and beaked. 197.
197. Leaves simple stipulate, not gland dotted. Sepals valvate.

\(94 TILIACEAE.\)
Leaves exstipulate, but sometimes with axillary spines. 198.
198. Leaves gland dotted. Flowers mostly regular.

\(75 RUTACEAE.\)
Leaves not gland dotted. Flowers irregular or stamens fewer
than twice the petals. 89 SAPINDACEAE.
199. (181) Stamens as many to twice as many as the petals. 200.
Stamens more than twice as many as the petals. 205.
200. Filaments free. 201.
Filaments united at least at the base. 203.
201. Leaves gland dotted exstipulate, but sometimes with axillary
spines. 75 RUTACEAE.
Leaves stipulate but stipules sometimes small and caducous.
202.
202. Leaves opposite or whorled.  \((Cunonia)\).

\(63 CUNONIACEAE.\)
Leaves alternate. 80 EUPHORBIACEAE.
203. Flowers unisexual. 80 EUPHORBIACEAE.
Flowers hermaphroditic. 204.
204. Sepals valvate in the bud united below.  \(96 STERCULIACEAE.\)
Sepals imbricate in the bud.  \(( Oxalis)\). 71 OXALIDACEAE.
205. Leaves opposite exstipulate. \(\text{(Hypericum)}\).

98 GUTTIFERAE.

Leaves alternate stipulate.

206. Anthers 1 celled.

207. Filaments free.

208. (180) Anthers 5 opening at apex united. Posterior sepal spurred. Succulent herbs. \(\text{(Impatiens)}\).

91 BALSAMINACEAE.

Flowers not as in \(\text{Impatiens}\).

209. "Water lilies" with large cordate or peltate, floating leaves, and numerous petals and stamens. \(\text{(Nymphaea)}\).

46 NYMPHAEACEAE.

210. Herbs with usually trifoliate leaves, 10 stamens united at base, 5 alternate shorter, styles 5, ovary 5 lobed, 5 celled. \(\text{(Oxalis)}\).

211. Tree with pinnate leaves and ovate deciduous stipules. Calyx 5 parted deciduous, stamens 10, ovary 2 celled, styles 2 diverging, fruit 2 horned capsule separating from a central column. \(\text{(Cunonia)}\).

63 CUNONIACEAE.

Plants and flowers not as in \(\text{Cunonia}\).

212. Stamens fewer than twice as many as the petals.

213. Stamens twice as many as petals or more.

214. Stamens united at base hypogynous. \(\text{96 STERCULIACEAE}\).

107 LYTHRACEAE.

215. Leaves pellucid dotted aromatic alternate exstipulate. \(\text{(Heteropyxis)}\).

111 MYRTACEAE.

216. Leaves not pellucid dotted. \(\text{(Salacia)}\).

86 HIPPOCRATEACEAE.

217. Leaves pinnate. \(\text{(Melianthus)}\).

90 MELIANTHACEAE.

85 CELASTRACEAE.

218. (212) Filaments united in a tube at least at the base. \(\text{Filaments free or united in several bundles.}\)

219. Anthers 1 celled.

220. Sepals valvate. Leaves stipulate. \(\text{96 STERCULIACEAE}\).

Sepals imbricate in bud. Leaves exstipulate.

77 MELIACEAE.

221. Herbs with opposite entire exstipulate leaves and numerous stamens in 3—5 parcels \(\text{(Hypericum)}\).

Not as in \(\text{Hypericum}\).

223. Anthers opening by 1—2 apical pores.

112 MELASTOMACEAE.

Anthers opening by 2 longitudinal slits. 107 LYTHRACEAE.

224. Calyx with valvate aestivation. Calyx with imbricate or open aestivation.

225. Disc outside the stamens. Disc within the stamens.

90 MELIANTHACEAE. 75 RUTACEAE.

226. (113) Stamens united in a tube. Anthers 1 celled.

95 MALVACEAE.

Stamens free or, if united, anthers 2 celled.

227. Ovules 1 in each carpel. Ovules 2 or more in each carpel.

228. Styles united below or throughout. Styles free or loosely cohering above.


(Ochna) 97 OCHNACEAE.

Leaves exstipulate. Receptacle forming a disc.

89 SAPINDACEAE.

230. Leaves opposite exstipulate. Leaves alternate (at least the lower) or all radical.

231. Herbs usually fleshy, not climbing. (Crassula).

60 CRASSULACEAE.

Shrubs usually climbing. (Clematis).

48 RANUNCULACEAE.

232. Leaves stipulate. Leaves exstipulate.

233. Flowers unisexual. Sepals 6 or more.

49 MENISPERMACEAE.

Flowers hermaphrodite or, if not, then sepals 2—3. Sepals 2—3.


50 ANONACEAE.

Stem herbaceous or woody below. 48 RANUNCULACEAE.


236. Petals and stamens perigynous. Petals and stamens hypogynous.

67 ROSACEAE. 96 STERCULIACEAE.


50 ANONACEAE.

Sepals 4 or more, or if 3 then stamens 3.

238. Stem herbaceous. Ovules usually numerous.

60 CRASSULACEAE.

Stem woody throughout. Ovules 2.

239. Stamens 10. Climber. (Cnestis). 68 CONNARACEAE.

Stamens 3—5. Trees. (Fagara). 75 RUTACEAE.
240. (111) Herbs with long stems and tendrils. Flowers unise- 
sexual, regular, or nearly so. Fruit a berry or gourd. 
145 CUCURBITACEAE.

Plants or flowers not as above. 241.
241. Ovules not distinct from placenta. Parasites on trees and 
shrubs. 37 LORANTHACEAE.
242. Mangrove trees with vivipary growing in brackish water. 
109 RHIZOPHORACEAE.

Not mangroves. 243.
243. Ovary 1 celled, sometimes incompletely chambered. 244.
Ovary 2 or more celled, rarely 2 or more distinct ovaries. 250.
244. Ovule 1. 116 UMBELLIFERAE.
Ovules 2 or more. 245.
245. Ovules basal or on a free central placenta. 246.
Ovules apical or on a parietal placenta. 248.
246. Sepals 2. (Portulaca). 44 PORTULACACEAE.
Sepals 4—8. 247.
247. Stamens numerous. Petals 5, ovules 2. Leaves alternate 
stipulate. 67 ROSACEAE.
Stamens as many or twice as many as petals. 248a.
248a. Leaves exstipulate. Stamens twice as many as petals. 
112 MELASTOMACEAE.
Leaves stipulate. Stamens as many as petals. (Pleurostylia). 
85 CELASTRACEAE.
248. Ovules apical. Trees or shrubs. 110 COMBRETACEAE.
Ovules parietal. 249.
249. Ovary inferior. Fleshy almost leafless plants. 
104 CACTACEAE.
Ovary half inferior. Leafy trees and shrubs. 
100 FLACOURTIACEAE.
250. (243) Ovules solitary in each ovary cell. 251.
Ovules 2 or more in each ovary cell. 261.
251. Ovules erect or ascending. 252.
Ovules pendulous or descending. 254.
252. Stamens 10 or more. 
Stamens 4—5. 253.
253. Stamens alternating with petals. 85 CELASTRACEAE. 
Stamens opposite petals. 92 RHAMNACEAE.
254. Ovary 2 celled. 255
Ovary 3 or more celled. 260.
255. Style 1, stigma 1. Flowers 4-merous. 256.
Style with 2—4 stigmas or styles 2—3. 257.
256. Flowers unisexual in cymes. Trees or shrubs, leaves opposite. 
(Cornus). 117 CORNACEAE.

Flowers hermaphrodite solitary. Herbs. (Trapa). 
113 OENOTHERACEAE.
257. Fruit capsular, or if dicoccus then ovary half inferior and leaves small and heath like. Leaves simple undivided. 
258. Fruit a schizocarp, or rarely a nut or drupe. Leaves usually either compound or deeply divided.
259. Leaves stipulate. Flowers unisexual. (Trichocladus).
66 HAMAMELIDACEAE.
Leaves exstipulate. Flowers hermaphrodite. (Berardia).
65 BRUNIACEAE.
259. Fruit a schizocarp, rarely a nut and then as usually stem herbaceous. Epigynous disc usually 2 parted.
116 UMBELLIFERAE.
Fruit a drupe or nut. Stem woody throughout.
115 ARALIACEAE.
260. (254) Leaves compound or more or less deeply divided.
115 ARALIACEAE.
Leaves simple undivided coarsely toothed. (Curtisia).
117 CORNACEAE.
261. (250) Ovules 2—4 in each ovary cell.
Ovules more than 4 in each ovary cell.
262. Stamens as many as petals or fewer.
Stamens twice as many as petals or more.
263. Stamens opposite petals. Leaves opposite exstipulate.
(Olinia) 105 OLI NIACEAE.
Stamens alternating with petals. Leaves stipulate.
85 CELASTRACEAE.
264. Leaves stipulate. Style or stigmas 2—5. 
67 ROSACEAE.
Leaves exstipulate, style 1, stigma 1.
265. Leaves opposite gland dotted.
111 MYRTACEAE.
Leaves alternate. (Barringtonia) 108 LECYTHIDACEAE.
266. (261) Water lilies. (See 209). (Nymphaea).
46 NYMPHAEACEAE.
Not water lilies.
267. Herbs with petals and stamens, both very numerous. Capsules opening at top. Leaves usually opposite, thick and fleshy. (Mesembrianthemum) 43 Aizoaceae.
Not as described for Mesembrianthemum.
268. Herbs with monoecious flowers. Male with many stamens.
Female with a 3-winged perianth tube adnate to ovary, and a 4—9 parted coloured limb. (Begonia).
103 BEGONIA CEAE.
Plants not as described for Begonia.
269. Styles 2. Flowers small green. Shrub with entire alternate leaves. (Choristylis) 61 SAXIFRAGACEAE.
Style 1 with 1 or more stigmas.
270. Stamens as many or twice as many as petals.
Stamens more than twice as many petals.
271. Sepals valvate in bud. Stamens twice as many as petals, rarely as many, and then leaves with small stipules. Anthers opening by longitudinal slits.

113 OENOTHERACEAE.

Sepals imbricate or open, or if valvate then stamens as many as petals or leaves without stipules, or anthers opening by apical pores.

272. Leaves opposite or whorled. Leaves alternate.

112 MELASTOMACEAE.

273. Stem herbaceous or woody at base.

146 CAMpanionulACEAE.

274. Leaves alternate. (Barringtonia) 108 LEcythidACEAE.

111 MYRTACEAE.

85 CELAstrACEAE.

127 APOCYNACEAE.

Not as in Asclepiadaceae.

278. Style thickened at apex (sometimes 2 lobed), bearing the stigmas on the under surface of the thickened part. Anthers sometimes adhering to style, but filaments free. Juice milky, mostly trees and shrubs.

279. Ovary superior or nearly so.

280. Herbs with 10 stamens united at base, the 5 alternate shorter. Ovary 5 lobed, 5 celled. Styles 5. (Oxalis).

71 OXALIDACEAE.

Not as for Oxalis.

281. Ovary 1.

282. Ovaries 2 or more, more or less distinct.

283. Ovary 1 celled.

284. Ovary 2 or more celled.


286. Ovules 2 or more.

287. Styles or style branches 5. Stamens 5 opposite petals.

121 PLUMBAGINACEAE.
26. **KEY TO THE FAMILIES.**

285. Stamens inserted at base of corolla.  **41 NYCTAGINACEAE.**
Stamens inserted at or above middle of corolla.  286.
286. Stamens fewer than corolla divisions 4.

131 VERBENACEAE.
Stamens as many as divisions of corolla.

40 AMARANTACEAE.
287. Ovules attached to 1 parietal placenta or stamens more than corolla lobes.

69 LEGUMINOSAE.
Ovules attached to 2 or more parietal placentas or stamens as many as corolla lobes or fewer.
288. Ovules 2.
Ovules 3 or more.
289. Stamens opposite corolla lobes.  _Waltheria_.

96 STERCULIACEAE.
Stamens alternating with corolla lobes.
290. Ovules erect. Style 2 parted, or if simple then herbs.

129 CONVOLVULACEAE.
Ovules pendulous. Style simple or wanting, shrubs or trees.

88 ICACINACEAE.
291. Ovules basal or on a free central placenta.
Ovules parietal.
292. Style 3 cleft. Sepals 2.  _Portulaca_.

44 PORTULACACEAE.
Style simple or 2 cleft.
293. Stamens as many as and opposite corolla lobes.
Stamens fewer than or alternating with corolla lobes.
294. Fruit a capsule. Herbs or undershrubs.

120 PRIMULACEAE.
Fruit a nut berry or drupe. Leaves alternate, gland dotted.

119 MYRSINACEAE.
Stamens 2 or 4.
296. Herbs. Leaves alternate or radical. Stigma sessile.

139 LENTIBULARIACEAE.
Leaves opposite or whorled. Style present.

131 VERBENACEAE.
297. (291) Style 3—10 cleft. Flowers unisexual or polygamous.

102 ACHARIACEAE.
Style 1 or 2 cleft.
298. Fertile stamens fewer than corolla lobes 1—4.
Fertile stamens, as many as or more than corolla lobes.
300.

126 GENTIANACEAE.
Fertile stamens 2 or 4.
300. Fertile stamens 2. Herbs. (Streptocarpus).

Fertile stamens 4. Trees or shrubs.  
301. Stamens as many as corolla lobes.  
Stamens more than corolla lobes.  

62 PITTOSPORACEAE.

Leaves opposite or whorled, or if not, then herbaceous. 303.
303. Stem woody. Leaves opposite or whorled, usually stipulate.

Flowers 4-merous.

Stem herbaceous or, if not, flower 5-merous. Leaves ex-stipulate.

138 GESNERACEAE.

136 BIGNONIACEAE.

138 GESNERACEAE.

126 GENTIANACEAE.

125 LOGANIACEAE.


77 MELIACEAE.

Sepals 3, corolla lobes 6, stamens numerous.

50 ANONACEAE.

305. (282) Corolla scarious regular, 4 lobed. Stamens 4, stigma 1.

141 PLANTAGINACEAE.

Corolla more or less irregular, or if regular, stamens 2 or stigmas 2.

306. Ovary 2 celled.

307. Ovary 3 or more celled.

308. Ovules solitary in each ovary cell.

309. Ovules 2 or more in each ovary cell.

310. Fertile stamens 2 or 4.

311. Fertile stamens 5 or more.

312. Corolla regular, stamens 2.

Corolla more or less irregular.

313. Leaves alternate, at least the upper ones.

135 SELAGINACEAE.

314. Leaves opposite or whorled.

315. Seeds borne on a hook like outgrowth of the funicle.

140 ACANTHACEAE.

316. Seeds not on a hook like outgrowth of funicle.

131 VERBENACEAE.

79 POLYGALACEAE.

122 SAPOTACEAE.

125 LOGANIACEAE.

79 POLYGALACEAE.

317. Flowers irregular.

318. Flowers regular or nearly so.

320. Flowers unisexual.

321. Flowers hermaphrodite.


Seeds not borne on a hook like outgrowth of funicle. 315.

315. Trees and shrubs. Leaves opposite stipulate or connected by transverse lines or ridges. Flowers often nearly regular.

316. Stamens 4—6, as many as petals. 125 LOGANIACEAE.

Not as for Loganiaceae.
316. Stamens 10—30. Tree. (Euclea). **123 EBENACEAE.**
   Stamens less than 10. 317.
317. Flowers regular or nearly so.
   Flowers more or less irregular. 318.
318. Leaves opposite, or whorled, or compound, or stamens 2. 319.
   Leaves alternate, usually simple. Stamens more than 2. 321.

**126 GENTIANACEAE.**
Corolla valvate or imbricate, but not contorted. 320.
320. Stamens 2. Not epiphytic. **124 OLEACEAE.**
   Stamens 5. Epiphytic on trees. (Dermatobotrys).

**134 SCROPHULARIACEAE.**
321. Ovules 2 in each ovary cell. **129 CONVOLVULACEAE.**
   Ovules more than 2 in each ovary cell. 322
322. Tufted, usually submerged aquatic. (Limnanthemum).

**126 GENTIANACEAE.**
323. Stamens free from corolla. (Lightfootia).
   Stamens attached to corolla. **146 CAMPANULACEAE.**
   **SOLANACEAE.**

324. Fruit 2 horned or its cells incompletely divided by false septa. Lower leaves often opposite. Plants with glandular hairs. Endosperm scanty. **137 PEDALIACEAE.**
   Not as for Pedaliaceae. 325.

**134 SCROPHULARIACEAE.**
Leaves compound, seeds exendospermic.

**136 BIGNONIACEAE.**
326. (306) Ovule 1 in each ovary cell. 327.
   Ovules 2 or more in each ovary cell. 334.
327. Stamens as many as, and alternating with, corolla lobes or fewer. 328.
   Stamens as many as, and opposite corolla lobes, or more. 332.
328. Flowers unisexual regular. Petals united only at base.
   Tree. (Ilex). **84 AQUIFOLIACEAE.**
   Flowers hermaphrodite, rarely polygamous. 329.
329. Corolla with valvate or folded aëstivation.

**129 CONVOLVULACEAE.**
Corolla imbricate or contorted. 330.
330. Stamens as many as corolla lobes. Leaves usually alternate.
   Flowers more or less regular. **130 BORRAGINACEAE.**
   Stamens usually fewer than corolla lobes. Leaves usually opposite. 331.
331. Ovary deeply divided. Fruit dry. **132 LABIATAE.**
   Ovary entire, or if not, fruit succulent.

**131 VERBENACEAE.**
332. Style 1 undivided. 122 SAPOTACEAE. 333.

333. Leaves exstipulate. Trees or shrubs. 123 EBENACEAE. Leaves stipulate or, if not, herbs or undershrubs. 80 EUPHORBIACEAE.

334. (326) Ovules 2 in each ovary cell. 335.

Ovules 3 or more in each ovary cell. 338.

335. Stamens as many as, and alternating with, corolla lobes or fewer. 336.

Stamens as many as, and opposite, corolla lobes or more. 337.

336. Tree. Flowers unisexual. (Ilex). 84 AQUIFOLIACEAE. Herbs or climbers. Flowers hermaphrodite. 129 CONVOLVULACEAE.

337. Style 1, undivided. 77 MELIACEAE.

Styles 2—8, free or partly united. 123 EBENACEAE.

338. Stamens numerous, or, if 5, then opposite corolla lobes. 339.

Stamens 4—5; if 5, then alternating with corolla lobes. 340.

339. Herb. Corolla with many divisions, styles 5. (Orygia). 43 AIZOACEAE.

340. Stamens 5. 96 STERCULIACEAE.

Stamens 4. 133 SOLANACEAE.

341. Stigma 1. (Bowkeria). 134 SCROPHULARIACEAE.

Stigmas 2. 137 PEDALIACEAE.

342. (281) Style 1. 343.

Styles 2 or more entirely free. 344.

343. Fertile stamens 2 or 4. Flowers irregular. 132 LABIATAE.

Stamens 5. Flowers more or less regular. 130 BORRAGINACEAE.

344. Styles 2. 129 CONVOLVULACEAE.

Styles 3 or more. 345.

345. Sepals 2—3. 50 ANONACEAE.

Sepals 4 or more. 60 CRASSULACEAE.

346. (279) Parasites on trees or shrubs. Ovules not distinct. 37 LORANTHACEAE.

Not stem parasites. Ovules distinct. 347.

347. Herbs with long stems and tendrils. Flowers unisexual, regular or nearly so. Fruit a berry or gourd. 145 CUCURBITACEAE.

Not as in Cucurbitaceae. 348.

348. Stamens 3 free. Vlei herb with pinnate leaves. Flowers in cymes. (Valeriana) 143 VALERIANACEAE.

Not as for Valeriana. 349.

Not as for **Portulaca**.  
350. Leaves opposite or whorled, stipulate. Stipules interpetiolar. Stamens free, as many as petals. Ovary usually 2 or more celled. 

**142 RUBIACEAE.**  
Leaves alternate, or if opposite, not with interpetiolar stipules. 

351. Ovary 1 celled.  
   Ovary 2 or more celled. 
352.  
   Ovule 1. Flowers usually in heads.  
   Ovules more than 1. 
353. Stamens 2 or 4 free.  
   Stamens 5. Anthers united. 
354. Succulent leafless plant, with numerous stamens. (Rhipsalis). 

**104 CACTACEAE.**  
Stamens 5. Leafy plants. 
355. Sea shore herb. (Samolus).  
   Shrubs or trees. (Maesa). 
356. Ovules 1 in each ovary cell.  
   Ovules 2 or more in each ovary cell. 
357. Corolla irregular. Strand plant. Leaves large, fleshy. (Scaevola).  
   Corolla regular. Leaves small. (Berardia). 

**147 GOODENIACEAE.**  
358. Stamens as many as or fewer than corolla lobes.  
   Stamens more than corolla lobes. 

**43 AIZOACEAE.**  
360. Petals united at base. Filaments united at base. 
   Petals united. Filaments free or nearly so. 

**111 MYRTACEAE.**
1. CYCADACEAE—3. PINACEAE.

**CYCADALES.**

**FAMILY 1—CYCADACEAE.**

Stems simple, rarely branched, woody with mucilaginous juice. Leaves large, pinnate. Male cones with large microsporophylls bearing numerous pollen sacs on under surface. Female cones bearing large mega sporophylls each with 2 ovules (in S. African species). Seeds drupe like. 2 genera 8 species.

1. Leaf pinnae with parallel veins. 1. **ENCEPHALARTOS.**

Leaf pinnae with a midrib and pinnate veins. 2 **STANGERIA.**

1. **ENCEPHALARTOS** Lehm. “umNgqabe.”
      Coast and Midlands. Thorn Veld.
   4. *g hellinckii* Lehm. Coast to Drakensberg.

2. **STANGERIA.** T. Moore. “im Fingo.”

   *paradoxa* Moore. Coast and Midlands. Fairly common.

**CONIFERAE.**

**FAMILY 2—TAXACEAE.**


**PODOCARPUS** L’Herit. “Yellow wood.”

2. *elongata* (Ait) L’Herit. Subdominant or dominant in many forests. Midlands and Drakensberg “umKoba.”

**FAMILY 3—PINACEAE.**

Stems woody. Leaves needle or scale like. “Stamens” with usually 2 pollen sacs underneath. Carpels with usually 2 ovules 1 genus 1 species.
WIDDRINGTONIA Endl. (Callitris Vent).
   draco-montana Stapf. (cupressoides Endl.) Common along streams in Drakensberg.

**MONOCOTYLEDONEAE.**

**FAMILY 4—TYPHACEAE.**

Aquatic or marsh herbs with creeping rootstock and erect simple stems. Leaves linear sheathing. Flowers unisexual, without a perianth, but usually surrounded by hairs, arranged in dense cylindrical inflorescences. Stamens 2—7. Ovary 1 celled. Ovule 1 pendulous. Fruit dry. 1 genus 1 species.

**TYPHA.** Tourn.
   latifolia L. subsp. capensis Rohrb. Common in marshes and along streams. Often mixed with sedges and Phragmites.

**FAMILY 5—POTAMOGETONACEAE.**

Aquatic herbs. Leaves with axillary scales. Flowers unisexual or hermaphrodite, regular. Perianth rudimentary or wanting. Stamens 1—4. Carpels several, rarely (Zostera) 1. Ovules 1 in each carpel. Fruit indehiscent. 3 genera 9 species.


1 **POTAMOGETON**... Tourn.
   1. fluitans Roth. subsp americanus var thunbergii.
   2. crispus L. Coastbelt and Midlands.
   3. mucronatus Schrad. Coastbelt.
   4. javanicus Hassk. Midlands.
   5. lucens L. Coastbelt and Midlands.
   6. natans L. Coastbelt.
   7. pusillus L. Coastbelt.

2. **ZOSTERA** L.
   nana Roth. Along seashore, usually near river mouths.

3. **ZANNICHELLIA** Mich.
   palustris L. Coastbelt.

**FAMILY 6—APONOGETONACEAE.**

Aquatic herbs with tuberous rootstock and radical leaves. Flowers in 1—4 spikes connected at base, rising above the water. Perianth segments 1—3. Stamens 6 or more. Carpels 3—8 dis-
tinct. Ovules 2—8 in each carpel. Fruits dehiscent. 1 genus 2 species.

**APONOGETON** Thb.
2. *spathaceum* var *junceum*. Hk. f. Common in moist spots. All over. Mont Aux Sources, 9,500 ft.

**FAMILY 7—SCHEUCHZERIACEAE.**

**TRIGLOCHIN** L.
1. *bulbosum* L. Coast and Midlands.

**FAMILY 8—HYDROCHARITACEAE.**

**LAGAROSIPHON** Harv.
*musoides* Harv. var *major* Ridl. Swamps near Greytown.

**FAMILY 9—GRAMINEAE.**
Grasses. Stems usually hollow. Leaves alternate in 2 rows, consisting of (a) a sheath, (b) a blade, and (c) a ligule, placed transversely between sheath and blade. Flowering axis is the culm. Main inflorescence a spike, a raceme or a panicle. Ultimate branch of inflorescence is the spikelet, consisting of an axis (the rachilla), which bears scalelike bracts. 2 lowest bracts are glumes, others are valves with flowers in their axils subtended behind by pales. Valves may be empty. Glumes or valves or both may be prolonged upwards into a short mucro or longer awn. Flowers hermaphrodite or unisexual. Perianth of 2 lodicules (scales) or wanting. Stamens 3 (rarely 1 2 4 or 6). Anthers versatile. Ovary 1. Styles or stigmas 2 feathery. Fruit a caryopsis, rarely a utricle. Seed endospermic. 67 genera, 227 species.

1. Spikelets all sessile in the notches of a simple spike. 65 **LOLIUM.**
   Spikelets not all sessile in the notches of a simple spike. 2.
   2. Spikelets secund (all on one side of rachis). 3.
   Spikelets not secund. 17.
3. Spikelets falling entire. Lower glume smaller or 0.
   Glumes not keeled.
   Lower glume persistent, distinct and keeled. Upper glume
   sometimes falling with the spikelet.  
4. Spikelets sunk in hollows or adpressed to the face of a broad
   rachis. Stem creeping.  19 STENOTAPHRUM.
   Spikelets not sunk in hollows on a broad rachis.  5.
5. Lower glume distinct.  
   Lower glume minute or 0.  
6. Nerves of lower valve 5—7 close straight and prominent.
   Lower glume minute.  13 DIGITARIA.
   Nerves of lower valve 5 or fewer. Side nerves curved and
   usually submarginal. Lower glume absent.
12 PANICUM.
7. Spikelets 1 flowered. No male or barren valves.  8.
   Spikelets 2 or more flowered or with 1 perfect flower and 1
   or more male flowers or empty valves.  9.
8. Glumes shorter than the glabrous valve.  42 CYNODON.
   Glumes longer than the ciliate valve.  43 MICROCHLOA.
9. Spikelets with 1 perfect and 1 or more male or barren flowers.
10. Spikelets with 2 or more perfect flowers.  13.
10. More than one spike in the inflorescence.  46 CHLORIS.
   Spike solitary.  11.
11. Spikelets awned.  
   Spikelets awnless.  44 CTENIUM.  12.
12. Upper glume much longer than the lower.
45 HARPECHLOA.
   Lower glume slightly longer than the upper.
   Spikes or false spikes solitary or umbelled.  16.
14. Valves minutely notched.  40 DIPLACHNE.
   Valves entire.  15.
15. Tips of rachilla joints fringed with minute hairs.
39 POGONARTHRIA.
   Tips of rachilla joints not fringed.  41 ERAGROSTIS.
16. Spikes terminated by a spikelet.  47 ELEUSINE.
   Point of rachis naked, projecting.  48 DACTYLOCTENIUM.
17. Spikelets with 1 perfect floret, with or without 1 or more male
   or barren florets or empty valves below it.  18.
   Spikelets with 2 or more perfect florets or very rarely with
   only 1 perfect floret which has male or barren florets or
   empty valves above it.  53.
18. Spikelets in pairs usually one sessile the other pedicelled, the
latter sometimes rudimentary. Lower glumes rigid and longer than the florets. 19.

Spikelets either not in pairs, or if in pairs then the lowest glumes not rigid and shorter than the florets. 29.

19. Spikelets all alike or differing only in the lower glumes. 20.

The two spikelets of each pair differing in sex and structure. 24.


Racemes 2inate, digitate, or fascicled. 23.

21. Spikelets awned. 3 ERIANTHUS.

Spikelets awnless. 22.

22. Panicle silky, spiciform. Rachis not fragile. 1 IMPERATA.

Panicle silky much branched. Rachis fragile. 2 SACCHARUM.

23. The two spikelets of each pair alike. 4 POLLINIA.

The two spikelets of each pair differing in the lower glume. 5 ISCHAEMUM.

24. Sessile spikelets sunk in hollows. 6 ROTTBOELLIA.

Sessile spikelets not sunk in hollows. 25.

25. All the spikelets awnless. 7 URELYTRUM.

Pedicelled spikelets awned. 9 ELIONURUS.

26. All the spikelets awnless. 11 THEMEDA.

Spikelets not all awnless. No whorl of male or barren spikelets at the base. 28.

27. 1—3 pairs of perfect and male spikelets subtended by a whorl of male or barren spikelets and the whole supported by a spathe. 28.

Subsessile spikelets awnless. Pedicelled awned. 8 TRACHYPOGON.

29. Blades transversely veined. Flowers unisexual. 66 OLYRA.

Blades not transversely veined. 30.

30. Glumes 0 or very minute. 31.

Glumes 2, distinct or rarely lower glume absent and upper distinct. 32.

31. Two minute nerveless valves below floret. 52 POTAMOPHILA.

No empty valves. 53 LEERSIA.

32. One or more empty valves or male florets below fertile floret. 33.

A single fertile floret only. No empty valves. 45.

33. Two empty valves (sometimes minute) or 2 male or barren florets below the fertile floret. 34.

One empty valve or male floret below the fertile floret. 36.

34. Lower valve awned dorsally. Awns kneed. 25 ANTHOXANTHUM.
Valves awnless or awned from the tip. Awns straight. 35.

35. Empty valves minute enclosed by the glumes.

55 PHALARIS.

At least one of the empty valves larger than the fertile.

54 EHRHARTA.

36. Glumes not falling with the spikelet. 37.

36. Spikelets falling entire with the glumes. 39.

37. Spikelets in clusters of three, large.

24 TRISTACHYA.

38. Spikelets solitary.

22 ARUNDINELLA.

38. Spikelets less than one-fifth inch. Upper valve minutely 2
toothed or entire.

23 TRICHOPTERYX.

39. Spikelets 1/6th—1 1/2 inches. Upper valve distinctly 2-toothed
or 2 lobed.

40. Bristles persistent.

17 SETARIA.

Bristles falling with the spikelet.

18 PENNISETUM.

41. Glumes or lower valve 2 lobed or emarginate, muticous or
awned from the sinus. Lower glume minute or 0.

20 TRICHOLOENA.

Glumes and lower valve entire awnless or awned.

Lower glume distinct.

21 MELINIS.

42. Upper glume 5 nerved, tips obtuse. 43.

42. Upper glume 7 nerved, tips acute.

20 TRICHOLOENA.

43. Glumes subequal with long viscous awns.

15 OPLISMENU.

Glumes usually unequal, awnless or with short scabrid awns.

44.

44. Inflorescence of 2—5 stout racemes.

Inflorescence a loose, rarely contracted panicle.

16 AXONOPUS.

45. Glumes awned.

14 PANICUM.

Glumes awnless or shortly mucronate.

46. Valve 1 nerved.

36 PEROTIS.

Valve more than 1 nerved.

31 POLYPOGON.

47. Valves awned.

46. Valves awnless.

48. Awns of valve 3 or 3 branched.

34 ARISTIDA.

Awns of valve solitary.

49. Nerves of valve closely approaching or joining at tip.

35 STIPA.

Awn knedd.

Nerves of valve parallel, not joining at tip.

50. Valve decurrent into a callus which has hairs several times
longer than the valve itself.

50. Valve decurrent into a callus which has hairs several times
longer than the valve itself.

33 CALAMAGROSTIS.

Callus glabrous or minutely hairy.

32 AGROSTIS.

51. Lower glume minute or 0. Upper glume with hooked spines
or bristles.

37 TRAGUS.

Both glumes distinct without spines or bristles.
52. Glumes subequal longer than floret. At least one of the glumes shorter than the floret.

34 AGROSTIS.

53. Reed grasses. Not reed grasses.

38 SPOROBOLUS.


30 PHRAGMITES.

55. Upper 2 or 3 valves empty, enclosing each other forming a club or spindle-shaped body. No club or spindle-shaped body.

67 ARUNDINARIA.

56 MELICA.

57. Whole panicle dense, cylindrical and usually dark purple. Glumes, valves and pales equally hairy all over.

58 STIBURUS.

59. Side nerves of valve excurrent into bristles.

60. Spikelets distant by more than their own length.

51 TRIRAPHIS.

61. Valves 2-toothed. Awn from the back. 40 DIPLACHNE.

Valves minutely 4-toothed. Awn terminal.

49 LEPTOCARYDIUM.

62. Side nerves of valve delicate and not submarginal. Florets 2 or 3 with uppermost reduced. Shorter than or not much longer than the glumes.

26 KOELERIA.

Side nerves of the valve submarginal. Florets usually numerous and far exserted from the glumes.

63. Valve entire. Valve minutely notched or with 2 lateral teeth.

41 ERAGROSTIS.

64. Spikelets deciduous as a whole. Both glumes 1 nerved.

40 DIPLACHNE.

65. Valves awned from the back near the middle.

57 FINGERHUTHIA.

66. Styles distinctly lateral on a hairy 2—3 lobed appendage of the ovary. Spikelets rather larger.

27 AVENASTRUM.

63 BROMUS.

No hairy 2—3 lobed appendage on top of the ovary.

67. Valves 2 cleft or 2 lobed. Valves entire or minutely bitid.
68. Florets 2.
   Florets more than 2.
69. Valves awned.
   Valves awnless.
70. Valves 7—9 nervel.
    Valves 5 nervel.

71. Spikelets subsessile in a simple raceme or false spike.

64 BRACHYPODIUM.
   Spikelets in open or contracted panicles.
72. Glumes very unequal. Awn of valve long.
   Glumes not very unequal. Awn of valve short.

61 FESTUCA.
73. Valves broadly cordate, boat shaped.
   Valves not broadly cordate, boat shaped.
74. Valve nerves usually distinct. Hilum of seed linear.

Valve nerves usually faint. Hilum of seed punctiform.
   Glumes and valves keeled. Florets often with a tuft of wool at the base.

60 POA.

1. IMPERATA Cyr. "umTente."
   arundinacea Cyr. In vleis and moist sand. All over South Africa.
2. SACCHARUM L.
3. ERIANTHUS Mich. "umTala."
   1. capensis Nees. A very tall, common vlei grass.
   2. sorghum Nees. Much rarer. Vlei species.
   3. junceus Stapf. Drakensberg.
4. POLLINIA Trin.
   1. villosa Spreng. Common in coast belt grassland.
   2. nuda Trin. Shade-loving rambling forest species.
5. ISCHAEMUM L.
   1. fasciculatum Brogn var arcuatum Hack. Coastbelt scrub and vleis.
6. ROTTBOELLIA Lf.
7. URELYTRUM Hack.
8. TRACHYPOGON Nees. "isiTupe."
   polymorphus Hack, var capensis Hack. High veld. Common
9. GRAMINEAE.

9. **ELIONURUS** Humb and Bonpl.
   *argenteus* Nees. Common (sometimes dominant) in High veld.

   1. *amplectens* Nees. High veld. Common. “*uCebe*.”
   2. *appendiculatus* Nees. Mountain regions chiefly. Rare elsewhere.
   3. *auctus* Stapf. Midland High veld. “*uQungu*.” “*Popo*.”
   5. *ceresiaeformis* Nees. Subdominant in much of High veld. “*umYakazane*.”
   6. *contortus* L. Mountain and Midland High veld. “*isiTupe*.”
   7. *cymbarius* L. High veld. Forest margins, etc.
   *cymbarius* var *lepidus* Stapf. Moist places.
   13. *filipendulus* Hockst. Coast veld. “*isiBusana*.”
   14. *halepensis* Brot. var *effusus* Stapf. Vleis also ruderal.
   17. *intermedius* R.Br. var *punctatus* Hack. High veld. “*umNcele*.”
   *nardus* var *prolixus* Stapf. Also common in moister veld. “*uQungu*.”
   *nardus* var *validus* Stapf. Also common in moister veld.
   19. *pertusus* Willd. Midlands. “*umNcele*” or “*imButane*.”
   *pertusus* var *capensis* Hack. Chiefly ruderal.
   23. *schimperi* Hockst.

28. *transvaalensis* Stapf. Near Dundee. 4-5,000 feet.

11. **THEMEDA** Forsk. (*Anthistiria* L.f.)

triandra Forsk. (*Anthistiria imberbis* Retz). (Rooi gras), the most important grass in Natal. Dominant over both High and Low veld. "inSinde."

var mollissima Hack. Common.


var. glauca Hack. Dominant in Low veld.

12. **PASPALUM** L.

1. *scrobiculatum* L. Common weed "isAmuyisane."

2. *distichum* L. Vlei species.


5. *flaccida* Stapf. Mountain High veld.


14. **PANICUM** L.

1. *aequinerve* Nees. Coastbelt scrub and forest margins.


4. *capillare* L. Midlands.

5. *chusqueoides* Hack. Coast scrub and forest margins.

6. *colonum* L. Coast belt.

7. *coloratum* L. Coastbelt.


17. *hymeniochilum* Nees. Coast scrub and forest margins.
24. *miliaceum* L. Mooi River 3-4,000 feet.
27. *perlaxum* Stapf. Coast scrub and forest margins.
   *proliferum* var *paludosum* Stapf. Vleis, coastbelt.
30. *schlechteri* Hack. Near Hilton. 3-4,000 feet.
34. *tunicatum* Hack. Estcourt.
35. *zizanioides* H.B.K. Coast scrub and forest margins.

15. **OPLIS MENUS** L. "u Benyane."
   *africanus* Beauv. Shade loving forest species.
   *africanus* var *simplex* Stapf. Inanda. "umBambalele."

16. **AXONOPUS** (Beauv.) Hk.f. "isi Nosa."
   *semialatus* var *ecklonii* Stapf.

17. **SETARIA** Beauv.
   4. *lindenbergiana* Stapf. Scrub and forest, not abundant.
   8. *sulcata* Raddi. Scrub and forest margins, very common.
      "uHlongo Hlongo."

18. **PENNISETUM.** Pers.

19. **STENOTAPHRUM** Trin. "uNgwengwe."
   *glabrum* Trin. Moist sandy coast flats and on the coast
sand dunes near sea. Often dominant. Also used for making lawns.

20. **TRICHOLAENA** Schrad.
   1. **glabra** Stapf. Tugela valley. Rare.

21. **MELINIS** Beauv.
   - **minutiflora** Beauv. var **pilosa** Stapf. Midlands. Rare.

22. **ARUNDINELLA** Raddi. “umTshuma.”
   - **ecklonii** Nees. Vleis and margins of bush. Common.

23. **TRICHOPTERYX** Nees.
   1. **dregeana** Nees. Common along streams.

24. **TRISTACHYA** Nees.
   - **leucothrix** Trin. High veld and Low veld. Common.

25. **ANTHOXANTHUM** L.
   - **ecklonii** Stapf. Mountain veld.

26. **KOELERIA** ers.
   - **cristata** Pers. Chiefly mountain veld.

27. **AVENASTRUM** Juss.
   1. **caffrum** Stapf var **natalense** Stapf. Rare mountain species.
   2. **turgidulum** Stapf. Mountain grassveld, fairly common. “umTepa.”

28. **PENTASCHISTIS** Stapf.
   - **natalensis** Stapf. Mountain grassveld.

29. **DANTHONIA** Dc.
   - sp. near **macowani** Stapf. Upper Tugela, near Mont Aux Sources.

30. **PHRAGMITES** Trin.
   - **communis** Trin. Dominant along streams. Abundant.

31. **POLYPOGON** Desf.
   - **monspeliensis** Desf. Vleis.

32. **AGROSTIS**.
   1. **lachnantha** Nees. Vleis common all over.
   2. **natalensis** Stapf. Umpumula. Rare.
   4. **suavis** Stapf. Dominant in patches of grassveld around Van Reenen.

33. **CALAMAGROSTIS** Roth.
   - **huttoniae** Hack. Midlands. Not common.

34. **ARISTIDA** L.
   1. **aequiglumis** Hack. Midlands. Not very common.
7. **junciformis** Trin. and Rupr. Common pioneer, "in Gongoni."
8. **sciurus** Stapf.
10. **adscensionis** L. In waste land, possibly introduced into Natal.

35. **STIPA** L.
   - **dregeana** Steud. Midland Bush.

36. **PEROTIS** Ait.
   - **latifolia** Ait. Coast to Drakensberg, but commonest on coastbelt.

37. **TRAGUS** Haller.
   - **racemosus** All. Open rocky hillsides.

38. **SPOROBOLUS** R. Br.
   1. **centrifugus** Nees. Open hillsides. Chiefly mountain veld.
   - **centrifugus** var **angustata**. Mountain veld.
   2. **festivus** Hochst var **stuppeus** Stapf. Tussock forming, Low veld species.
   3. **indicus** R. Br. Important pioneer. Also ruderal.
   - **indicus** var **laxus** Stapf. Dominant in primitive Low veld. "umSingizane."
   4. **pungens** Kunth. Seashore only. Dominant in patches.
   5. **rehamanni** Hack. Coastbelt.

39. **POGONARTHRIA** Stapf.
   - **falcata** Rendle. Chiefly coastbelt.

40. **DIPLACHNE** Beauv.
   1. **fusca** Beauv. Vleis and stream banks.

41. **ERAGROSTIS** Beauv.
   1. **aspera** Nees. Chiefly ruderal.
   2. **atherstonei** Stapf. Rocky places. Rare.
   4. **brownii** Nees. Near Durban.
   5. **caesia** Stapf. Grassveld. Not very common.
   6. **ciliaris** Link. Coastbelt only. Common on dunes.
   7. **chalcantha** Trin. Important pioneer in grassveld.

10. **curvula** Nees. Very common pioneer all over.

   "umRepurrepu."

**curvula** var **valida** Stapf. Very common all over.

11. **gangetica** Steud. Coast and Midlands.

12. **gummiflua** Nees. Midland grassveld.

13. **heteromera** Stapf. Coastbelt chiefly.


15. **lappula** Nees. Coast and Midlands. Grass veld.

16. **major** Hockst. Chiefly ruderal.

17. **namaquensis** Nees var **robusta** Stapf. Vleis and stream banks and coast sand dunes.


19. **nebulosa** Stapf. Vleis, often dominant.

20. **patentissima** Hack. Midlands, not common.


22. **plana** Nees. Common "umTshiki."

23. **superba** Peyr. Mostly in vleis.

24. **plumosa** Link. Near Durban.

42. **CYNODON** Pers. "isi Nandi." "uNgwengwe."


43. **MICROCHLOA** R.Br.

1. **caffra** Nees. Mountain veld. Often dominant.

2. **altera** Stapf var **nelsoni** Stapf. Mountain veld common.

44. **CTENIUM** Panz.

**concinnum** Nees. Rare in Natal. Commoner in Pondoland.

45. **HARPECHLOA** Kunth.


46. **CHLORIS.** Wats.


2. **petraea** Thb. Open rocky hillsides. "umBungane."


4. **virgata** Swartz. Grassveld and ruderal.

   **virgata** var **elegans** Stapf. Inanda.

47. **ELEUSINE** Gaertn.


2. **coracana** Gaertn. Cultivated by natives. "uPok".

48. **DACTYLOCTENIUM.** Willd.

**aegyptiacum** Willd. Sand dune and seashore species. Often dominant. Sometimes used for lawns.

49. **LEPTOCARYDIUM.** Hochst.

**vulpiastrum** Stapf. Rare stream bank species.

50. **CROSSOTROPIS** Stapf.

**grandiglumis** Rendle. A pioneer on stony hillsides.
51. **TRIRAPHIS R.Br.**
   rehmanni Hack. Mountain veld.

52. **POTAMOPHILA** R. Br. (*Maltebrunia* Kth.)
   prehensilis Bth. Shade loving forest species. Coastbelt

53. **LEERSIA** Sw. “amaXaposi.”
   hexandra Sw. Vleis, often dominant.

54. **EHRHARTA** Thb.
   1. erecta Lam. Coast sand dunes and Drakensberg.
   2. calycina Sw. Coast sand dunes.

55. **PHALARIS** L.
   1. arundinacea L. Vleis. Common.
   3. canariensis L. Ruderal. Introduced.
   4. bulbosa L. Cultivated.

56. **MELICA** L.

57. **FINGERHUTHIA** Nees.
   sesleriaeformis Nees. Vleis.

58. **STIBURUS** Stapf.
   alopecuroides Stapf. Moist places at higher altitudes.

59. **BRIZA** L.
   minor. Introduced weed.

60. **POA** L.
   1. annua L. Introduced.
   2. trivialis L. Introduced.
   3. binata Nees. Mountain veld. “umQulzazane.”

61. **FESTUCA** L.
   1. scabra Vahl. Mountain veld.
   2. caprina Nees. Mountain veld.
   3. costata Nees. Mountain veld.

62. **VULPIA** Gmel.
   myuros Gmel. Ixopo. Rare.

63. **BROMUS** L.
   1. maximus Desf. Introduced.
   2. natalensis Stapf.
      natalensis var lasiophilus Stapf. South Downs 4-5,000 ft.
   3. secalinus L. Mountain veld.
   4. leptoclados Nees. Mountain veld.
   5. unioloides H.B.K. Ruderal introduced.

64. **BRACYPODIUM** Beauv.
   flexum Nees. Biggarsberg 4-5,000 ft.
   flexum var simplex Stapf. Midlands and Drakensberg.
   Usually in shade.

65. **LOLIUM** L.
   1. multiflorum Lam. Introduced weed.
3. *temulentum* L. Weed.

66. **OLYRA** L.
   *latifolia* L. Ngoya Zululand.

67. **ARUNDINARIA** Michx.

**FAMILY 10—CYPERACEAE.**

Herbs usually with underground rhizomes and solid culms. Leaf sheaths closed. Flowers arranged in spikelets, consisting of an axis (rachilla) bearing bracts (glumes) with flowers in their axils (or some without). Flowers hermaphrodite or unisexual. Perianth reduced to 6 or fewer scales or bristles or wanting. Stamens 1–3, rarely more. Anthers basifixed. Ovary superior 1 celled. Ovule 1, basal inverted. Style 1, with 2, 3 or 4 (rarely 1) branches. Fruit a nut or drupe. Seed endospermic. 19 genera 134 species.

1. Flowers all unisexual (*Cariceae*)
   Flowers hermaphrodite; rarely a few male or female intermixed.
2. Nut on a gynophore, not enclosed in a utricle or bottle-like bract.
   Nut enclosed in a bottle-like bract or utricle.
3. Nut enclosed in a bottle-like bract, deeply split down and often containing a male spike or rachilla.

17 **SCLERIA.**

Nut enclosed in a utricle.
4. Empty glumes at base of spikelet, usually more than 2. Fertile glumes few, often 1. Spikelets centrifugal, with a central flower.
   Empty glumes at base of spikelet 2–0. Fertile glumes, usually many, rarely 1–2. Spikelets centripetal without a terminal flower.
5. Style branches 2.
   Style branches 3.
6. Perianth bristles 5–6 glumes 2 ranked.
   Perianth bristles none. Glumes spiral.
7. Bracteoles (Hypogynous scales) present.
   Bracteoles absent.
8. Bracteoles 2 standing fore and aft within the glume.

14 **RHYNCHOSPORA.**

Bracteoles united in front longer than glume, almost enveloping the nut.

15 **COSTULARIA.**

16 **CLADIUM.**

12 **LIPOCARPHA.**

13 **ASCOLEPIS.**
10. Style 2 branched.
    Style 3 branched.
    Nuts compressed laterally.
12. Spikelet bearing 1—2 (rarely more) nuts.
    Spikelet bearing several or many nuts.
13. Rachilla of spikelets persistent.
    Rachilla of spikelet breaking up.
14. Style conspicuously thickened at the base.
    Style not or slightly thickened at the base.
    Hypogynous bristles none.
16. Style persistent or, if deciduous, not leaving a button on the nut.
    Style deciduous, leaving a button on the nut.
17. Flowers with a toothed or lobed, persistent disc at the base of the ovary.
    Flowers without a disc.
18. Glumes hairy.
    Glumes glabrous.

1. **KYLLINGA** Rottb.
   1. *alba* Nees. Coast vleis.
      *alba* var *alata* C.B.Cl. Coastbelt. Margins of bush.
   2. *buchanani* C.B.Cl. Umzula.
   8. *pauciflora* Ridley.
2. **PYCREUS** Beauv.
   1. *angulatus* Nees. Midland vleis.
   2. *chrysanthus* C.B.Cl.
   3. *elegantulus* C.B.Cl. Coastbelt vleis.
   6. *macranthus* C.B.Cl. Coast to Drakensberg.
   8. *oakfortensis* C.B.Cl. Coast and Midland vleis.
      *polystachyus* var *laxiflora* Bth. Coastbelt vleis.

3. **JUNCELLUS** C.B.Cl.

   - *laevigatus* C.B.Cl. Coastbelt vleis.

4. **CYPERUS** L. “inTsikane.”

   1. *albostriatus* Schrad. Coast scrub and forest, very common.
      - *compactus* var *flavissimus* C.B.Cl. Midlands.
   5. *denudatus* L.f. Coast and Midlands.
   11. *haematocephalus* C.B.Cl. Mountain regions.
      - *latifolius* var *angustifolius* Krauss.
   19. *rotundus* L.
      - *rotundus* var *platystachys* C.B.Cl.
   20. *rupestris* Kth. Common on bare rocks especially at high altitudes and on hilltops.
   25. *schlechteri* C.B.Cl. Mount Insiswa. 6,000 ft.
   27. *tenax* Boeck.
   29. *flava* L. Mont-aux-Sources, 9,500 ft.

5. **MARISCUS** Gaertn.

   1. *binucifer* C.B.Cl. Midlands.
      - *congestus* var *glandulifera* C.B.Cl.
4. *albomarginatus* C.B.Cl. Midland grassveld.
5. *cooperi* C.B.Cl.
   *dregeanus* var *buchanani* near Durban.
10. *grantii* C.B.Cl.
15. *owani* C.B.Cl. Sydenham 300 ft.

6. **ELEOCHARIS** R.Br. (*Heleocharis* R.Br.)
   *limosa* Schultz. Coast and Midland vleis.

7. **FIMBRISTYLIS** Vahl.
      *complanata* var *kraussiana* C.B.Cl. Coast and Midlands.
      *complanata* var *consanguinea* C.B.Cl.
   5. *monostachya* Hassk. Coast and Midland grassveld. Com-

8. **BULBOSTYLIS** Kunth.
   5. *striatella* C.B.Cl.

9. **SCIRPUS** L.
   1. *cernuus* Vahl.
      *cernuus* var *subtilis* C.B.Cl. Inanda.
   2. *expallescens* Boeck.
   3. *fluitans* L. Common all over in vleis and rivers.
7. **paludicola** Rottb.
10. **subprolifer** Boeck. Coast and Midlands.
11. **falsus** C.B.Cl. Mont-aux-Sources. 9,500 ft.

10. **FICINIA** Schrad.
1. **cinnamomea** C.B.Cl. Coast and Midlands.
2. **gracilis** Schrad.
3. **laciniata** Nees. Coastbelt.
4. **stolonifera** Boeck. Van Reenen’s, Drakensberg.

11. **FUIRENA** Rottb.
1. **chlorocarpa** Ridley.
2. **coerulescens** Steud. Inanda.
   **coerulescens** var **buchanani** C.B.Cl.
3. **eckloni** Nees. Coastbelt.
4. **glabra** Kth. Ibisi.
5. **gracilis** Kth. Coast and Midlands.
6. **microlepis** Kth. Coast and Midlands.
7. **pachyrrhiza** Ridley. Inanda.
8. **pubescens** Desf. Coast and Midlands. “umXopo.”

12. **LIPOCARPHA** R.Br.
1. **argentea** B.Br. Coastbelt.
2. **pulcherrima** Ridley. Coastbelt.

13. **ASCOLEPIS** Steud.
**capensis** Ridley. Common in High veld grassland.

14. **RHYNCHOSPORA** Vahl.
1. **aurea** Vahl.
2. **cyperoides** Mart. Coastbelt.
4. **spectabilis** Hochst. Sydenham, 300 ft.

15. **COSTULARIA** C.B.Cl.
**natalensis** C.B.Cl.

16. **CLADIUM** P. Browne.
**mariscus** R.Br. (**jamaicense** Crantz). Coastbelt.

17. **SCLERIA** Berg.
2. **catophylla** C.B.Cl. Coastbelt.
3. **hirtella** Sw. Coastbelt.
5. **melanomphala** Kth. Coast and Midlands.
6. **natalensis** C.B.Cl. Coast and Midlands.
7. **woodii** C.B.Cl. Midlands and Drakensberg.

18. **SCHOENOXIPHIUM** Nees.
**rufum**. Coast and Midlands. Forest margins and vleis.

19. **CAREX** L.
1. **bolusii** C.B.Cl.
2. *buchanani* C.B.Cl.
10. *spicato-paniculata* C.B.Cl. Midlands and Drakensberg.

**FAMILY 11—PALMAE.**

Trees. Leaves large pinnate or fan shaped, usually forming a terminal crown. Petiole sheathing at base. Flowers in simple or branched spadices, usually unisexual. Perianth 6 parted in a double row. Stamens 6, rarely 3. Ovary superior 1—3 celled, or of 3 separate carpels. Ovules 1 in each cell. Fruit berry or drupe-like, often 1 celled by the abortion of 2 carpels. Seed with small embryo and horny endosperm. 3 genera 3 species.

1. Carpels 3 distinct, only one maturing. Leaves pinnate.

1. **PHOENIX**
   Carpels 3 united.
   2. Leaves fan shaped.
      Leaves pinnate.

   1. **PHOENIX** L. "uSundu."
      *reclinata* Jacq. Common in open glades, often dominant in clumps all along coastbelt.

2. **HYPHAENE** Gaertn. "Ilala."
   *crinita* Gaertn. Dominant over large areas of sandy soil forming "Ilala Palm Veld" on coast belt and in Zululand.

3. **RAPHIA** Beauv.

**FAMILY 12—ARACEAE.**

Herbs or shrubs. Leaves usually net-veined. Flowers unisexual or hermaphrodite, in spadices without bracteoles. Perianth simple or absent. Stamens opposite perianth lobes. Ovary single, 1—many celled, superior. Ovules 1—many in each cell. Fruit 1—many seeded berry. Seeds coat fleshy. 3 genera 7 species.

1. Floating aquatics. Perianth 0. Leaves in rosette.

1. **PISTIA**

2. **STYLOCHITON.**
Perianth none. Spathe convolute below widely opening.

3 ZANTEDESCHIA.

1. PISTIA L.
   stratiotes L. In stagnant pools of Coast and Midland rivers.

2. STYLOCHITON Leprieur. “umFana-ka-sihlanjana.”
   natalense Schott. Coastbelt.

3. ZANTEDESCHIA. Spreng (Richardia Kunth). “in Tebe.”
   1. aethiopica Spreng. (R. africana Kunth). Common all over in moist places.
   2. hastata (Hk.f.) Engl. Coast and Midlands. Common.
   3. albomaculata Baill. Midlands.
   4. melanoleuca (Hk. f.) Engl. Inanda.

FAMILY 13—LEMNACEAE.

Minute floating herbs, consisting of fronds. Flowers in a cavity of frond, consisting of 1—2 stamens (male flowers) and 1 ovary (female flowers). Perianth 0. Ovary 1 celled. Ovules 1—6. Seeds minute endospermic. 2 genera 4 species.

1. Fronds rootless. Flowers on back of frond. 1 WOLFFIA.
2. Fronds with 1 or more roots. Flowers at margin of frond. 2 LEMNA.

1. WOLFFIA Hk.
   1. michellii Schleid.
   2. denticulata Hegelmaier.

2. LEMNA L.
   1. minor L. Common.
   2. gibba L.

FAMILY 14—FLAGELLARIACEAE.


FLAGELLARIA L. “uGonoti.”
   guineensis Schumach. Common around margins of bush, Coast and Midlands.

FAMILY 15—RESTIONACEAE.

1. **LEPTOCARPUS** R.Br.  
   *paniculatus* Mast. Valley near Baviaan Falls, Alfred County.

**FAMILY 16—XYRIDACEAE.**


**XYRIS** L. (Mostly in wet spots).

**FAMILY 17—ERIOCAULACEAE.**


**ERIOCAULON** L. (In rivers and vleis.)
   4. *natalensis* Schinz.

**FAMILY 18—COMMELINACEAE.**


   2. Fertile stamens 5—6. Flowers more or less regular.
   3. Inflorescence included or nearly so in a spathe.

1. **COMMELINA.**
   Flowers not included in a spathe.
2. **ANEILEMA.**
3. **FLOSCOPA.**
   Ovary 3 celled. Flowers axillary clustered.
   4. **FLOSCOPA.**
4. Stamens inserted towards top of corolla tube.

3 COLEOTRYPE.

Stamens hypogynous. Petals free at base, then united into a tube.

4 CYANOTIS.

1. COMMELINA Plum.
   1. africana L. Common. Coast to top of Drakensberg.
      africana var lancispatha C.B.Cl. Inanda.
      africana var barberae C.B.Cl. Inanda.
   2. benghalensis L. Coast belt and Zululand.
   3. eckloniana Kth. Coast belt.
   5. karooica C.B.Cl. Inanda.
   6. krebsiana Kth. Coast and Midlands.
      krebsiana var villosior C.B.Cl.
   7. livingstoni C.B.Cl. Coast belt.
   8. nudiflora L. Common. Coast and Midlands.
      nudiflora var werneana (Hassk). C.B.Cl.

2. ANEILEMA R.Br.
   1. aequinoctiale Kth. Coast belt bush.
   2. dregeanum Kth. Coast belt and Zululand. Common.
   3. sinicum Ldl. Coast belt and Zululand.

3. COLEOTRYPE C.B.Cl.
   natalensis C.B.Cl. Coast belt.

4. CYANOTIS D. Don.
   nodiflora Kth. Common coast to Drakensberg.

5. FLOSCOPA. Lour.
   1. glomerata Hassk. Coast belt.
   2. manni C.B.Cl. Zululand.

FAMILY 19—JUNCACEAE.

Herbs or rarely (Prionium), stem woody. Flowers regular, hermaphrodite. Perianth of 6 free, rigid segments, usually green. Stamens 6, rarely 3. Ovary superior, 1 or 3 celled. Ovules 3 or more. Style 1, stigmas 3. Fruit a capsule. Endosperm fleshy or hard. 3 genera, 11 species.

1. Stem woody, often 5—6 feet long. Leaves large, often 3—4 feet long, in a rosette at top of stem.
   3 PRIONIUM.
   Stem herbaceous.

2. Ovary 1 celled with 3 nearly basal ovules.

   2 LUZULA.
   Ovary more or less 3 celled with many ovules in each cell.

1 JUNCUS L.

1. brevistylis Buchen.
2. capensis Thb.
3. effusus L. Midlands and Drakensberg.
4. lomatophyllus Spreng. Common all over.
20. LILIACEAE.

5. maritimus Lam. Coast.
6. oxycarpus E.M. Coastbelt.
7. punctorius L.f.
8. rostratus Buchen.
9. dregeanus Kth. Drakensberg, 6,500 feet.

2. LUZULA DC.
africana Drege. Mont-aux-Sources. 9,500 ft.
3. PRIONIUM E. M.
palmita E.M. Marshes south of Durban. Nowhere very abundant.

FAMILY 20—LILIACEAE.

1. Fruit a berry. Climbing or woody stemmed plants.
   Fruit a capsule or achene. Herbaceous or fleshy leaved plants.

1 SMILAX.

   Flowers hermaphrodite.

2. ASPARAGUS.

   Perianth segments united at base. Leaves well developed.
3 BEHNIA.

   Veins of leaf close, inconspicuous. Flowers racemose.

4 DRACAENA.

5. Underground part neither a bulb nor a corm.
   Underground part a bulb or corm.
   Flowers not solitary, or if solitary then terminal.
7. Perianth segments united almost to top.

31 SANDERSONIA.

   Perianth segments free or almost so. Stems climbing.
8. Perianth spreading or reflexed. Style bent downwards.

30 GLORIOSA.

   Perianth segments conniving. Style not bent down.

32 LITTONIA.

   Flowers not in umbels enclosed by 2 bracts.
10. Perianth tube long with a corona.
   Perianth tube short without a corona.
16 AGAPANTHUS.

11. Perianth segments free or almost so. Herbs.
   Perianth segments united in a long or short tube.
13.
Anthers dorsifixed versatile.  
13 ERIOSPERMUM.  
Leaves more than 3. Rootstock obscure or small.  
15 CHLOROPHYTUM.  
14 ANTHERICUM.  

15. Filaments glabrous. Ovules 2 in each cell.  
33 SANSEVIERA.  
Filaments bearded. Ovules 3 or more in each cell.  
10 BULBINE.  

16. Stamens inserted at throat of perianth tube. Ovule 1 in each cell.  
Stamens free or almost free from perianth.  
33 SANSEVIERA.  
17. Leaves thick and fleshy.  
18. Leaves not fleshy.  
7 GASTERIA.  
Perianth tube straight or nearly so. Stamens as long as the perianth.  
8 ALOE.  

20. Stem or inflorescence either branched or twining. Anthers basifixed.  
Stem simple, not twining. Anthers dorsifixed.  
21. BOWIEA.  
22. Stems scandent.  
21. SCHIZOBASIS.  
22. Perianth segments free or nearly so.  
Perianth segments united in a tube below.  
23. Seeds crowded, flattened or sharply angled or winged.  
Seeds not crowded, globose or obovoid.  
22 ALBUCA.  
23 URGINEA.  
25. Perianth segments narrowed into a canalicate claw.  
Root stock a corm.  
28 ANDROCYMBIUM.  
Perianth segments not narrowed into a claw.  
Rootstock bulbous.  
26. Inflorescence crowned by a tuft of leafy bracts.  
28 EUCOMIS.  
Inflorescence without a terminal tuft of bracts.  
27. Perianth segments connivent at top. Flowers sessile or short stalked. Filaments broadened almost to top.  
24 DRIMIOPSIS.
20. LILIACEAE.

Perianth segments spreading. Filaments not broadened except sometimes at the base. 28.

28. Perianth segments 1 nerved with stamens attached.

26 SCILLA.

Perianth segments keeled with more than 1 nerve. Stamens usually free from perianth with filaments flattened.

27 ORNITHOGALUM.


29 WURMBEA.

Root stock bulbous. Leaves radical. 30.


Perianth withering, not deciduous or tube campanulate. 32.

31. Perianth segments very short and broad. 19 LITANTHUS.

Perianth segments narrow, more or less elongated.

32. Perianth tube withering. Stamens inserted below the throat.

20 DIPCADI.

Perianth tube campanulate deciduous. Stamens inserted at the throat.

18 DRIMIA.

1. SMILAX L. "iZaza," "iYala," "inGqaqabulani."

kraussiana Meisn. Common in bush.

2. ASPARAGUS L. (Mostly margins of bush and thorn veld.) "isiGobo."


3. asiaticus L.

4. declinatus L.

5. falcatus L. Coast and Midlands. "isiKobo."

6. medioloides Thb. Common all over.


8. plumosus Baker. Coastbelt bush and Drakensberg.

plumosus var nanus.


10. sarmentosus L. Coast and Midlands.

11. saundersiae Baker.

12. scandens Thb. Midlands.


14. stipulaceus Lam. Midlands.

15. subulatus Thb.

16. denudatus Baker. Camperdown, 2,000 ft.

17. lilacinus Burch. Ginginhlovu, 1—200 ft.

18. stellatus Baker. Drakensberg.


3. **BEHnia** Didrichs.
   *reticulata* Didrichs. Coast and Midland Bush. Common

4. **Dracaena** Vaud.
   *hookeriana* K. Koch. Around margins and as undergrowth in coast scrub and sand dune bush.

5. **Kniphofia**. Moench. (Mostly in vleis, sometimes in grassveld).
   1. *buchanani* Bak. Coast and Midlands.
      *buchanani* var *flavescens* Berger. Fields Hill, 1,500 ft.
   2. *breviflora* Bak. Midlands and Drakensberg.
      *breviflora* var *concinna* Berger. Newcastle.
      *parviflora* var *albiflora* Berger. Glencoe.
   6. *fibrosa* Bak. Mahwaqa Mt. 6-7,000 ft.
      *modesta* var *lutescens* Berger. Manderston.
      *modesta* var *woodii* Berger.
      *natalensis* var *robustior* Berger. Zululand.
   17. *rufa* Bak.
   18. *linearifolia* Bak. var *kuntzei* Berger. Colenso.
   19. *longicollis* Bak.
   20. *longiflora* Bak.
   24. *primulina* Bak.

6. **Notosceptrum** Benth:
   2. *brachystachyum* A. Zahlbr. Lidgetton. 3-4,000 ft.

7. **Gasteria** Baker.
   2. *gracilis* Baker.
8. ALOE L. ( Mostly in Thorn veld and rocky places.) "umHlaba."
   2. boylei Baker. Tugela Valley.
   3. arborescens Miller var natalensis Berger. Midlands.
   7. greenii Baker.
   8. kraussii Baker. Coast and Midlands.
  11. myriacantha R. and S.
  15. nitens Baker. Thorn veld.
      saponaria var brachyphylla Bak. Midlands.

9. BULBINELLA Kunth.
   carnosa Baker. Coastbelt.

10. BULBINE L. (Grassveld mostly).
   1. asphodeloides R. and S. Coast to Drakensberg.
   2. ensifolia Baker. Midlands.
   3. narcissifolia Salm Dyck. Midlands.
   5. nigra Schinz.

11. BOWIEA Harv. "uGibisisela."
    volubilis Harv. Common in bush and Thorn veld.

12. SCHIZOBASIS Baker.
    schlechteri Baker.

13. ERIOSPERMUM Jacq. (Grassveld chiefly).
   1. burchellii Baker. Thorn veld.
   2. cooperi Baker. Drakensberg, Van Reenen.
   4. luteorubrum Baker. Coast and Midlands.
   7. natalengoense O. Kuntze. Glencoe 4-5,000 ft.
   8. junodi Bak.
   9. platyphyllum Bak.
  12. sprengelianum. Schinz.
14. ANThERICUM L. (Grassveld and around bush).
   1. angulicaule Baker.
   2. capitatum Baker. Drakensberg, Van Reenen.
   5. gerrardi Baker. Coast and Midlands.
   6. hirsutum Thb. Near Durban.
   7. longifolium Jacq. (Chlorophytum).
   8. longistylum Baker.
   12. saundersiae Baker.
   14. nataglencoense O. Ktze.
   15. triflorum Ait. Alexandra County, 1,800 ft.
   16. acutum C. H. Wright.

15. CHLOROPHYTUM Ker. (Grassveld and around bush).
   1. bowkeri Baker. Coast and Midlands.
   2. comosum Baker. Coast and Midlands.
   4. elatum R.Br. Coast and Midlands.
   5. haygarthii Wood and Evans.

16. AGAPANTHUS L’Herit.
   umbellatus L’Herit. Common in light shade at higher altitudes.
   umbellatus var minor Lodd. Midlands.

17. TULBAGHIA L. (Grassveld or vleis).
   1. acutiloba Harv. Coast to Drakensberg.
   2. alliacea L.f. Coast and Midlands.
   5. violacea Harv. Midlands.

18. DRIMIA Jacq. (Grassveld or vleis).
   1. altissima Hk. (Urginea). Coast and Midlands.
   2. angustifolia Baker. Midlands.
   4. neriniformis Baker. Van Reenen vleis.
   5. rudatisii Schltr. Fairfield Alexandra County.

19. LITANTHUS. Harv.
   pusillus Harv. Drakensberg. On rocks.

20. DIPCADI. Medic. (Grassveld, vleis and around bush).
   1. ciliare Baker.
   2. oreophila Schlechter. Van Reenen.
5. *readii* Baker.

21. **GALTONIA** Dcne.

22. **ALBUCA** L. (Grassveld and vleis, and in bush).
5. *oligophylla* Schltr. Fairfield, Alexandra County.
7. *spiralis* L. Van Reenen, 5-6,000 feet.

23. **URGINEA** Steinh. (Grassveld, vleis, and around bush).
5. *multisetosa* Baker. Mooi River, 4-5,000 ft.

24. **DRIMIOPSIS** Lindl. (Grassveld, vleis, and around bush).
1. *humifusa* Baker.

25. **EUCOMIS** L’Herit (Grassveld, vleis and around bush).
2. *humilis* Baker. Summit of Tabanhlope. 6-7,000 ft.
5. *regia* Ait.

26. **SCILLA** L. (Mostly grassveld.)
1. *adlami* Baker.
12. *natalensis* Planch. Coast to Drakensberg.
13. *oostachys* Baker. Upper Umkomaas, 5-6,000 ft.
18. *rigidifolia* Kth. "inGcino" or "inGcolo."
   *rigidifolia* var *nervosa* Baker. Inanda and Drakensberg.
   *rigidifolia* var *gerrardi* Baker. South Downs, 3-4,000 ft.

27. **ORNITHOGALUM** L. (Mostly grassveld).
   15. *ebulbe* Schltr. Fairfield, Alexandra County. 2-3,000 ft.
   17. *flavovirens* Baker. Drakensberg, 6,000 ft.
   19. *flanaganii* Baker. Summit Mont aux Sources. 9,500 ft.
28. ANDROCYMBIUM Willd.
   1. decipiens N.E.B. Coastbelt.
   2. melanthoides Willd. Drakensberg.
   3. natalense Baker. Coast to Drakensberg.

29. WURMBEA.
   1. kraussii Baker. Midlands and Drakensberg, 9,500 ft.
   2. pusilla Phillips. Mont aux Sources, 10,000 ft.

30. GLORIOSA L. "Hlamvu."
    virescens Ldl. Sand dune and coast bush. Climber.

31. SANDERSONIA Hook.

32. LITTONIA Hook.
    modesta Hk. Coast and Midland. Scrub and bush.

33. SANSEVIERA Thunb. "isiKholo kotho."
    thyrsiflora Thb. Edges of bush and Thorn veld. Coast and
    Midlands. Common.

FAMILY 21—HAEMODORACEAE.

Herbs. Perianth segments 6 free or united. Ovary superior
or inferior, 3 celled (sometimes 2 sterile). Fruit a capsule.
1 genus 1 species.

BARBERETTA Harv.
   aurea Harv. York Bush, in damp shady places.
   (Sansevieria Thb. is included in this family in the Flora
   Capensis).

FAMILY 22—AMARYLLIDACEAE.

Herbs with radical leaves. Flowers more or less regular,
hermaphrodite. Perianth segments 6. Stamens 6. Ovary in-
ferior or half inferior, 3 celled. Endosperm fleshy 14 genera 75
species.

1. Rootstock a corm or tuber or woody. Flowers solitary or
   not subtended by a spathe.
   2. Rootstock a bulb (imperfect in Clivia). Flowers usually in
      an umbel subtended by a spathe, rarely solitary.
   4. Stem woody or herbaceous with leaves all down. Flowers
      white or tinged with purple. 14 VELLOSIA.
      Leaves all radical. Flowers usually yellow, rarely white. 3.
   3. (a) Ovary narrowed into a long beak. Fruit indehiscent.
      2 CURCULIGO.
      (b) Ovary not beaked. Fruit capsular. Flowers yellow.
      1 HYPOXIS.
      (c) Perianth tube short. Flowers red or white.
      1 A. RHODOHYPOXIS.
   4. Anthers basifixed. (Deeply sagittate in Anoiganthus). 5
Amaryllidaceae.

Anthers dorsifixed, versatile. 7.

5. Anthers small, subglobose. Perianth without a tube or nearly so.

3 Hessea.

6. Anthers linear or sagittate. Perianth with a tube. 6.

Anthers sagittate. Flowers umbellate. 4 Anoiganthus. 8. Perianth with a distinct tube.

7. Perianth divided nearly or quite to the ovary. 8.

3 Hessea.

5. Anthers linear or sagittate. Perianth without a tube or nearly so. 9. Filaments thickened at the base. Stigma obscurely 3 lobed.

9 Nerine.

Filaments filiform. Stigma capitate. 8 Brunsvigia.

9. Ovules many in each cell, not sunk in the placentas. 10. Ovules 1—6 in each cell or sunk in the placentas. 11.

10. Perianth tube shorter than the limb. 7 Ammochariss. Perianth tube longer than the limb. 10 Cyrtanthus.


12. Ovules sessile or sunk. Capsule bursting irregularly. 6 Crinum. 

Ovules 2—4 distinct. Capsule loculicidal 3 valved. 13 Buphane.


12 Haemanthus.

1. RHODOHYPOXIS Nel.

1. baurii Nel (Hypoxis baurii Bak). Common on mountains.

baurii var platypetala Nel. Midlands and Drakensberg.

baurii var milloidæ Nel. Midlands.

2. rubella Nel. Summit of Mont aux Sources.

1. HYPOXIS L.

1. angustifolia Lam. Drakensberg.

angustifolia var buchananii Baker. Inanda.


3. kraussiana Buchinger. Midlands and mountains.

4. argentea Harv. Coast to Drakensberg.


dregei var biflora De Wild. Midlands.

6. gerrardi Baker. Coast to Drakensberg.

7. membranacea Baker. Coast to Drakensberg. (brevifolia Bak.)

8. obliqua Jacq. Ellesmere, Alexandra district.

obliqua var woodii Baker. Inanda.


10. acuminata Baker. Coast to Drakensberg.
11. multiceps Buch. Inanda.
12. oligotricha Baker. Coast and Midlands.
15. lata Nel. Van Reenen, 6,000 ft.
17. rigidula Baker. Coast to Drakensberg.
   rigidula var pilosissima Baker. Midlands.
18. elliptica Nel. Midlands.
19. oblonga Nel. Weenen County.
20. obtusa Burch. Drakensberg.
   “Labatheka.”

2. CURCULIGO Gaertn.
   plicata Ait Midlands.
   plicata var barberi Baker. Coast to Drakensberg.

3 HESSEA. Herb.

4. ANOIGANTHUS Baker. (Vleis).
   breviflorus var minor Baker. Moist grassveld.

5. APODOLIRION Baker. (Grassveld.)
   1. buchanani Baker. Midlands.
   2. ettae Baker. Grassy hill, Umbumalo. 800 ft.

6. CRINUM L. (Mostly in vleis or around bush).
   2. longifolium Thb. Coast to Drakensberg. “umDuse.”
   3. macowani Baker. Upper Tugela, 4-5,000 ft.

7. AMMOCHARIS. Herb.
   falcata Herb. Thorn veld. Midlands.

8. BRUNSVIGIA. Heist.
   1. josephinae Gawl. Midlands and Drakensberg.
   2. natalensis Baker. South Downs. Rare.

9. NERINE Herb.
   1. angustifolia Baker. Midlands.
   2. appendiculata Baker. Midlands.
   3. filifolia Baker.
   5. schlechteri Baker. Mount West, 5,600 ft.

10. CYRTANTHUS Ait. Coast to Drakensberg. Common.
3. *lutescens* Herb.
10. *flanagani* Baker. Mont aux Sources, 8-9,000 ft.
11. *stenanthus* Baker. Mont aux Sources, 8-9,000 ft.


12. **HAEMANTHUS** L. (Bush and grassveld.)
1. *albiflos* Jacq. Umtwalumi, 2,800 ft.
5. *deformis* Hook.
8. *magnificus* Herb.

13. **BUPHANE** Herb.
   *disticha* Herb. Coast to Drakensberg. Common.

14. **VELLOSIA** Vand.
2. *elegans* Oliv. Coast to Drakensberg.
   *elegans* var *minor* Baker Midlands.

**FAMILY 23—DIOSCOREACEAE.**

Tuber fleshy subterranean.  
Tuber large, firm, half exposed.  

1. **DIOSCOREA** L. (In Bush.)  
   1. **crinita** Hk.f. Coast and Midlands.  
   2. **diversifolia** Griesb. Midlands and Drakensberg.  
   3. **dregenea** Baker. Coast and Drakensberg.  
   5. **microcuspis** Baker. Near Newcastle, 3-4,000 ft.  
   6. **mutiloba** Kth. Coast and Midlands.  
   7. **rupicola** Kth. Inanda. "mKwa."  
   8. **undatiloba** Baker.  

2. **TESTUDINARIA** Salisb.  
   1. **elephantipes** Burch. Rocky hill, South Downs.  
   2. **sylvatica** Kth. Coast and Midlands.  

**FAMILY 24—IRIDACEAE.**

1. Style branches petaloid with stamens opposite and adpressed to them.  
   2. Style branches not petaloid. Stamens not adpressed to them.  
2. Style branches large with stigmas on underside. Inner and outer perianth segments unequal.  
   1. **MORAEA.**  
   Style branches small with stigmas at tip. Inner and outer perianth segments subequal.  
   2. **HOMERIA.**  
3. Flowers more than 1 to a spathe fugitive often appearing in succession.  
   4. Spathes 1 flowered, not fugitive.  
   4. **BOBARTIA.**  
   Style branches short. Flowers usually bluish.  
   5. Style branches bifid.  
   6. Style branches undivided.  
   8. Filaments long, inserted below throat of perianth tube.  
   11. **WATSONIA.**  
    Filaments short, inserted at the throat of perianth tube.  
   7. Flowers solitary terminal.  
   10. **LAPEYROUSEA.**  
   Flowers not solitary.  
   8. Flowers regular or nearly so. Stamens and style straight.  
   9. Flowers more or less irregular. Stamens unilateral curved.  
   10. Style long, branches short, club-shaped or linear.  
   11. Style short, branches long, subulate.  
   10. Spathe valves both membranous entire.  
   9. **DIERAMA.**
Outer spathe valve short, brown, emarginate. 8 IXIA.

11. Corm present. Filaments short. 7 HESPERANTHA.

No corm. Filaments at least as long as anthers.

6 SCHIZOSTYLIS.

12. Perianth curved. 13

Perianth more or less straight. 14.

13. Perianth tube longer than limb, filiform below, cylindrical above. 16 ANTHOLYZA.

Perianth tube as long as or shorter than limb, funnel shaped. 15 GLADIOLUS.

14. Tube long. Spathes valves long green entire. 14 ACIDANTHERA.

Tube short. Spathes valves short brown toothed. 15.

15. Fruit an inflated, 3 lobed, globose capsule. 13 CROCOSMIA.

Fruit a small oblong membranous capsule. 12 TRITONIA.

1. MORAEA L. "Tulps." (Grassveld and vleis.)
   1. glauca Wood & Evans. River flat, Mooi River, 4,000 ft.
   2. iridioides L. Coast and Midlands.
   3. natalensis Baker. Midlands and Drakensberg.
   4. spathacea Ker. Coast to Drakensberg. Common.
   5. tenuis Ker. Midlands.
   6. rivularis Schltr. Fairfield, Alexandra County. 2-3,000 ft.
   7. tricuspis Ker. Coast to Drakensberg.
   8. unguiculata Ker. Drakensberg, 6,500 ft.
   10. edulis Ker. Drakensberg, 6-9,000 ft.

2. HOMERIA Vent.
   miniata Sweet.

3. ROMULEA Maratti.
   1. rosea Eckl. Summit of Mount Erskine.
   2. thodei Schltr. Mont Aux Sources. 8,700 ft. Wet sandy places.

4. BOBARTIA Ker.
   natalensis (Regel) Klatt.

5. ARISTEA Soland. (Grassveld.)
   1. aniceps Eckl. Coast and Midlands.
   2. compressa Buching. Coastbelt.
   5. majubensis Baker. Majuba 6-7,000 ft. Tugela Valley.
   6. montana Baker. Majuba Mt. and Drakensberg.
   8. schizolaena Harv. Coast and Midlands.
     torulosa var monostachya Baker.

6. SCHIZOSTYLIS Backh and Harv.

7. **HESPERANTHA** Ker. ( Mostly grassveld. )
   2. **bifolia** Baker. Midlands.
   3. **gracilis** Baker. Isangwana, 1,800 ft. Foot of cliff.
   5. **leucantha** Baker. Ifafa, 1,500 ft.
   7. **radiata** Ker. Midlands and Drakensberg.

8. **IXIA** L.
   1. **trichorhiza** Baker. Near Durban.
   2. **brevifolia** Baker. Giants’ Castle, 10,000 ft.

9. **DIERAMA** K. Kah.
      **pendula** var **pumila** Baker. Coast to Drakensberg.
   2. **pulcherrima** Baker. Midlands.

10. **LAPEYROUSIA** Pourr.
    2. **grandiflora** Baker. Umhlalazi, Zululand.

11. **WATSONIA** Nuller.
       **densiflora** var **alba**. Coast and Midlands.
    2. **humilis** Miller.

12. **TRITONIA** Ker.
    1. **kraussii** Baker. Midlands and Drakensberg.
    2. **cinnabarinea** Pax. Ifafa, 1,500 ft.
    3. **laxifolia** Bth. Inanda.
    5. **pottsii** Bth. Midlands.
    7. **rosea** Klatt.
    9. **flavida** Schltr. Alexandra County, 2-3,000 ft.

13. **CROCOSMIA** Planch.
    **aurantiacus** Planch. Coast and Midlands. Common.

14. **ACIDANTHERA** Hockst.
    2. **platypetala** Baker. Coast to Drakensberg.

15. **GLADIOLUS** L.
    1. **aurantiacus** Klatt. Midlands.
2. crassifolius Baker. Midlands.
3. cruentus Moore.
4. dracocephalus Hk. Midlands and Drakensberg.
5. eckloni Lehm. Biggarsberg and Zululand.
7. gracilis Jacq.
10. ludwiggii Pappe. Coast and Midlands. “isiDwa.”
11. microsiphon Bak.
13. platyphyllus Baker. Coast and Midlands.
15. pubescens Baker. Mooi River, 4,000 ft.
17. rachidiflorus Klatt. Round Durban Bay.
18. salmoneus Baker. Upper Umkomaas, 3-4,000 ft.
19. sericeo-villosus Hk. Drakensberg.
23. tysoni Baker. Alexandra County, 1,800 ft.
24. parvulus Schltr. Fairfield, Alexandra County.
26. flanaganii Baker. Mont aux Sources, 8,500 ft.

16. ANTHOLYZA L.
  1. caffra Ker. Midlands.
  2. paniculata Klatt. Midlands and Drakensberg.
     “umLunge.”

FAMILY 25—MUSACEAE.

Tall herbaceous or tree-like plants with large leaves. Flowers irregular. Stamens 5. Ovary inferior 3 celled. Endosperm mealy. 1 genus 1 species. 
Sepals 3, petals 3, very unequal, 2 lower connivant and forming a sagittate blade with a central channel in which stamens and style are placed, the third much smaller.

STRELITZIA.

STRELITZIA Ait. “isiGceba.”

augusta Thb. (wild banana). Very common all along coastbelt. Dominant in clumps in the sand dune bush.

FAMILY 26—ZINGIBERACEAE.

Herbs. Stems simple springing from a rootstock. Perianth of calyx and corolla. Fertile stamen 1. Staminodes 1—3 petal-
like. Ovary inferior, 3 celled. Ovules numerous. Style enclosed in a groove of filament. Fruit a capsule or berry. Endosperm mealy. 1 genus 1 species.

**KAEMPFERIA** L. "inDungulu."

*natalensis* Schltr. & K. Schum. (*Siphonochilus natalensis*.

**FAMILY 27—ORCHIDACEAE.**

Herbs (sometimes epiphytic). Flowers irregular. Receptacle usually continued above ovary to form a column on which the stigma and anther are inserted. Stamen (in African genera) 1. Ovary inferior 1 celled. Ovules numerous parietal. One of the stigma lobes transformed into a rostellum to which pollen masses adhere. Seeds small exendospermic. 29 genera 219 species.

1. Pollen masses with basal stalk-like appendages which adhere to sticky gland-like appendages of the rostellum. 2.

2. Pollen masses with apical appendages or without appendages.

2. Anthers reclinate or forming an angle with the column. 3.

3. Lip erect or if reclinate (*Cynorchis*) then lip 1 spurred. 8.

3. Lip adnate to the column with an appendage on its upper face. Petals usually converging into a hood. 4.

4. Lip free from the column or if slightly adnate to it then petals not converging into a hood. 6.

4. Lateral sepals spurred or saccate. 29 **DISPERIS.**

Lateral sepals not spurred nor saccate. 5.

5. Petals united with dorsal sepal into a hood, contracted in front, concave or obliquely saccate at the base.

28 **CORYCIUM.**

Hood flattened, not contracted in front, not saccate at base.

27 **PTERYGODIUM.**

6. Lip uppermost, 2 spurred or 2 saccate at base.

24 **SATYRIUM.**

Odd sepal uppermost, spurred; lip not spurred. 7.

7. Lip more or less saccate at base. Petals more or less adnate to the base of dorsal sepal and column.

26 **BROWNLEEA.**

Lip flat. Petals free from column. 25 **DISA.**

8. Stigmatic processes 2, often elongate, clavate and lateral. 9.

9. Stigma 1, flat; column very short. 13.

9. Stigmatic processes short, adnate to lip. 19 **PERISTYLUS.**

Stigmatic processes free. 10.

10. Stigmatic processes short, broad, oblong. 23 **CYNORCHIS.**

Stigmatic processes more or less elongated, slender. 11.

11. Rostellum triangular, without diverging side lobes. 20 **STENOGLOTTIS.**
Rostellum with elongated side lobes which carry the anther channels.

12. Rostellum with a small tooth-like front lobe. 19 HABENARIA
Rostellum with a cucullate front lobe. 22 BONATEA.

Petals longer than the sepals. 17 HOLOTHRIX.
Glands of rostellum free.


Petals not clawed.

15. Rostellum forming a narrow fold between the anther cells. 16.
Rostellum broad, triangular below the anther cells. 17.


(Gymnadenia R.Br.) 16 SCHIZOCHILUS.
Column long. Lip not spurred nor saccate.

17. Lip saccate or spurred.

Lip not spurred.

18. Pollinia soft, granular or powdery.
Pollinia firm waxy.

19. Pollinia without stipes or gland.
Pollinia with linear caudicle and gland.

Pollinia adhering directly to rostellum gland. Front lobe of lip not dilated nor clawed.

21. Pollinia 4 or 8 united by a viscid appendage, free from the rostellum. Anther 2 celled.
Pollinia 2 or 4 attached to a stipes and gland of the rostellum. Anther cells usually confluent.


14 BRACYCORYTHIS.

15 PLATANTHERA.

20 STENOGLOTTIS.

13 POGONIA.


12 PLATYLEPIS.


2 MEGAACLINUM.
Column footless. Inflorescence not dilated. Terrestrial. 23.

23. Pollinia 4. Flowers small, greenish. 1 LIPARIS.
Pollinia 8. Flowers showy.
Epiphytic. Column footless or leaves distichous and bilobed. 26.

25. Sepals narrow and less coloured than petals, usually reflexed.
Sepals and petals equal or nearly so, spreading.

5 LISSOCHILUS.

26. Lip not spurred or saccate. Leaves plicate acute. 27.
Lip spurred or saccate at base. Leaves distichous, coriaceous and variously bilobed.
27. Sepals and petals spreading, subequal. Lip inferior. 

6 ANSELLIA.

Sepals and petals subconnivent unequal. Lip superior.

7 POLYSTACHYA.

28. Pollinia with 1 stipe and 1 gland.

9 ANGRAECUM.

29. Pollinia with 2 stipes attached to 1 gland.

8 LISTROSTACHYS.

Pollinia with 2 stipes and 2 distinct glands.

10 MYSTACIDIUM.

1. LIPARIS L.C. Rich.

1. bowkeri Harv. Ngoma and near Richmond.

2. gerrardi Reichb. f.

2. MEGACLINIUM Lindl.


2. scaberulum Rolfe. Zululand.

3. CALANTHE R.Br.


4. EULOPHIA R.Br. (Mostly in vleis; sometimes in grassveld).

1. mackenii Rolfe. Coastbelt.

2. caffra Reichb.f. Tugela Valley and Zululand.


4. nutans Sond. Ixopo.


6. carunculifera Reichb.f.


8. aemula Schltr. Midlands and Drakensberg.

9. longipes Rolfe.


11. gladioloides Rolfe. Lidgetton. 3-4,000 ft.


13. saundersiae Rolfe.

14. barbata Spreng.

15. robusta Rolfe. Camperdown.


17. haygarthii Rolfe. Camperdown, 2,000 ft.

18. deflexa Rolfe.


20. calanthoides Schltr. Midlands and Drakensberg.


29. *oliveriana* Bolus. Coast to Drakensberg.
32. *aculeata* Spreng.
35. *foliosa* Bolus. Coast to Drakensberg.
42. *platypetala* Lindl. Alexandra County. 1,800 ft.

5. **LISSOCHILUS** R.Br.

6. **ANSELLIA** Lindl. (Epiphytic).

gigantea Reichb.f. Coastbelt bush.

7. **POLYSTACHYA** Hook. (Epiphytic).

8. **ANGRAECUM** Bory. (Epiphytic).
2. *conchiferum* Ldl. Near Vryheid, 3-4,000 ft.
27. ORCHIDACEAE.

5. tricuspe Bolus. Zululand.
6. bicaudatum Ldl. Midlands and Zululand.
7. tridentatum Harv. Krantzkloof, 1,800 ft., on rocks.
8. bolusii Rolfe. Eshowe, Zululand.
10. chiloschistae Reichb.f. Coastbelt.

   arcuata Reichb.f. Coastbelt and Inanda.

10. MYSTACIDIUM Ldl. (Epiphytic).
    1. gerrardi Bolus. Coast and Midlands.
    2. millari Bolus. Coast bush.
    3. caffrum Bolus.
    4. pusillum Harv. Coastbelt.
    5. venosum Harv. Coastbelt and Zululand.
    6. filicorne Ldl. Coast and Midlands.
    7. gracile Harv. Midlands.

11. ZEUXINE Lindl.
    cochlæaris Schltr. Mouth of Umgeni. Sandy vlei.

    australis Rolfe. Coastbelt.

13. POGONIA Juss (Nervilia Gaud.)
    purpurata Reichb.f. Ifafa, 1,800 ft.

14. BRACHYCORYTHIS Lindl.
    1. ovata Ldl. Coast to Drakensberg. Common.
    2. allisoni Rolfe. Drakensberg. Olivier’s Hoek.
    3. pubescens Harv. Coast to Drakensberg.
    5. virginea Rolfe. Drakensberg. Van Reenen’s.

    1. tenuior Schltr. Midlands.

16. SCHIZOCHILUS Sond.
    1. zeyheri Sond. Midlands.
    2. sandersoni Harv. Coastbelt.
    3. trilobus Rolfe. Dargle Farm.
    4. flexuosus Harv. Dargle Farm.
    5. bulbínela Bolus. Alexandra County. 3,000 ft.

    1. incurva Ldl. Drakensberg. Van Reenen.
    2. parvifolia Ldl. Van Reenen.
    3. lindleyana Reichb.f.
    4. orthoceras Reichb.f. Midlands and Drakensberg.
    5. macowaniana Reichb.f. Lion River, 3,000 ft.
6. *scopularia* Reichb.f. Drakensberg, 8-9,000 ft.

18. **HUTTONAEA** Harv.

19. **PERISTYLA** Blume.
    - *natalensis* Rolfe. Ngoma, on half-decayed trees.

20. **STENOGLOTTIS** Lindl.
    2. *fimbriata var saxicola* Schltr. Mount West.

21. **HABENARIA** Willd.

22. **BONATEA** Willd.

23. **CYNORCHIS** Thonnars.
    - *compacta* Rolfe. Rocks near Gillitts. 2,000 ft.

24. **SATYRIUM** Sw.
2. atherstonei Reichb.f. Coast to Drakensberg. Common.
3. parviflorum Sw. Coast and Midlands.
4. aphyllum Schltr. Coast and Midlands.
5. neglectum Schltr. Drakensberg.
6. woodii Schltr. Coast and Midlands.
8. cristatum Sond. Coast to Drakensberg. Common.
10. ocellatum Bolus. Midlands and Drakensberg.
11. erectum Sw.
13. rhodanthum Schltr. Fairfield, Alexandra County.

25. DISA Berg.
1. filicornis Thb. (Penthea filicornis Ldl.) Oakford.
2. obtusa Ldl. Umgeni River.
8. chrysostachya Sw. Midlands and Drakensberg.
10. macowani Reichb.f. Midlands and Drakensberg.
15. crassicorns Ldl. Midlands and Drakensberg.
16. frigida Schltr. Mont-aux-Sources.
17. tripetaloides N.E. Br. Murchison, 2,000 ft.
18. sagittalis Sw.
20. gerrardi Rolfe.
22. saxicola Schltr.
24. patula Sond. Midlands and Drakensberg.
25. nervosa Ldl. Midlands and Drakensberg.
27. fanniniae Harv. Midlands.
28. pulchra Sond. Midlands and Drakensberg.
29. capricornis Reichb. Mts. near Kokstad.
30. stricta Sond.
31. brevicorns Bolus. (Monadenia brevicorns Ldl.) Inanda.
32. baurii Bolus. (Herschelia baurii Kränzl). Ngoya and Drakensberg.

26. BROWNLEEAA. Harv.
1. parviflora Harv. Midlands and Drakensberg.
2. galpini Bolus. Drakensberg.
3. recurvata Sond.
4. natalensis Rolfe. Byrne.
6. coerulea Harv. Midlands and Drakensberg.
7. fanninia Rolfe. Dargle farm.

27. PTERYGODIUM Sw.
   hastatum Bolus. Drakensberg.

28. CORYCIUM Sw.
   1. carnosum Rolfe. Howick.
   2. tricuspidatum Bolus. Near Charlestown.
   3. magnum Rolfe. Midlands and Drakensberg.
   4. nigrescens Sond. Coast to Drakensberg.

29. DISPERIS.
   1. buchanani Rolfe. Richmond.
   2. natalensis Rolfe. Dargle Farm.
   3. allisoni Rolfe. Olivier's Hoek, Drakensberg.
   4. kermisina Rolfe. Olivier's Hoek.
   5.. tysoni Bolus. Drakensberg.
   7. concinna Schltr. Mohlamba Range. 5-6,000 ft.
   8. wealii Reichbf. Polela.
   9. bicolor Rolfe. Olivier's Hoek, Drakensberg.
   10. flava Rolf. Olivier's Hoek.
   11. oxyglossa Bolus. Midlands.
   12. cardiophora Harv. Coast to Drakensberg.
   14. lindleyana Reichbf.
   17. woodii Bolus. Coast and Midlands.
   18. stenoglossa. Coastbelt, vleis and sand dunes.
   19. venusta Schltr. Van Reenen.
   20. cooperi Harv. Drakensberg and Dargle.

**DICOTYLEDONEAE—ARCHICHLAMYDEAE.**

**FAMILY 28—PIPERACEAE.**

Herbs or shrubs, erect or climbing. Flowers hermaphrodite or unisexual, minute, in dense spikes, each subtended by a peltate bract. Perianth absent. Stamens 2—6. Ovary 1 celled. Ovule
1, basal straight. Fruit a berry. Seeds endospermic. 2 genera 5 species.


1. PIPER L. "Hlolane." "uPogwana."
   1. capense L. Common in coast and Midland bush.
   2. borbonense C.DC.

2. PEPEROMIA. Ruiz & Pav.
   1. reflexa A. Dietr. Common coast to Drakensberg, usually on trees.
      reflexa var capensis C.DC.
   2. arabica Decsne. Coastbelt.
   3. retusa A. Dietr. Upper districts.

FAMILY 29—SALICACEAE.

Trees or shrubs. Leaves alternate, stipulate. Flowers in catkins, dioecious. Perianth 0. Disc cup shaped or reduced to 1 or more scales. Stamens 2 or more. Ovary 1 celled with 2 or more parietal placentas. Ovules inverted. Stigmas 2—4. Fruit capsular. Seeds exendospermic, with basal tuft of hairs. 1 genus 1 species.

SALIX L.

woodii Seem. Near Colenso, 3-4,000 ft. "umZezana."

FAMILY 30—MYRICACEAE.


MYRICA L.

1. conifera Burm.f. (aethiopica L.) Coast and Midlands. Along streams.
2. sp. Drakensberg.

FAMILY 31—ULMACAEAE.

Trees or shrubs. Leaves alternate, stipulate, usually 3 nerved at the base. Flowers hermaphrodite or unisexual. Perianth of 4—5 segments. Stamens 4—5 opposite P. segments. Ovary superior, 1 celled. Ovule 1 pendulous inverted. Stigmas 2. Fruit a nut or drupe. Seed exendospermic or with a little endosperm. 3 genera 5 species.

1. Stipules united, sheathing the buds. Spiny shrub.

3 CHAETACME.

Stipules free. Spineless.
2. Stigmas feathery. Upper flowers long stalked. **1 CELTIS.**
   Flowers almost sessile. Pedicels less than 1 lin. long.
   **2 TREMA.**

1. **CELTIS** L. “umVumvu.”
   2. *rhamnifolia* Presl (Camdeboo Stinkwood.) Tree 20—80ft.
      high, common in forest, occasional in tree veld. Coast to
      high altitudes on Drakensberg.

2. **TREMA** Lour. “uBatini.” “umPangazi.” “umVangazi.”
   “Pengapenga.” “umCabegazane.”
   *bracteolata* Blume. Shrub or small tree. Common in forest
   all over. Occasional in tree veld.

   “umKhovothi.”

**FAMILY 32—MORACEAE.**

Trees, shrubs and herbs. Leaves stipulate. Flowers unisexual.
Perianth simple or wanting. Stamens 1—many. Ovary 1 celled.
Ovule 1 pendulous. 2 genera 12 species.
1. Herb. Flowers in spikes or panicles. **1 CANNABIS.**
   Trees rarely undershrubs. Flowers in pouch-like receptacles
   (Figs), juice milky
   **2 FICUS.**

1. **CANNABIS** Tourn. “inTsangu.”
   *sativa* L. Indian Hemp. Common around kafir kraals.

2. **FICUS** L.
   1. *sycomorus* L.
      bush. Coast to Drakensberg.
   3. *ingens* Miq. (*lutea* Vahl.)
      “umTombe.”

**FAMILY 33—URTICACEAE.**

Trees, shrubs or herbs. Leaves usually stipulate. Flowers
unisexual, rarely polygamous. Perianth simple, of 1—5 segments,
or wanting in female flowers. Stamens 1—5. Filaments broad-
enened at base. Ovary 1 celled. Ovule 1, erect or ascending, straight. Style 1 or 0. Fruit indehiscent. Seed usually endospermic. 6 genera 8 species.

5 AUSTRALINA.

Stamens 2—5.
2. Stipules and stinging hairs absent. Leaves entire.

6 PARIETARIA.

Stipules present, or if rudimentary, then leaves toothed. 3.

4 POUZOLZIA.

Stinging hairs present.
4. Leaves opposite.

5. Stigma linear or oblong. Annual herbs.

Stigma penicillate, capitate. Shrubs.

1. URTICA (L.) Gaudich.

"imBabazane."

2. FLEURYA Gaudich.

1. grossa Wedd. Umhloti, 1,000 ft.
2. capensis Wedd. Inanda. Coast and Midlands.

3. URERA Gaudich. "imPongozembe."

1. tenax N.E.Br. Coast and Midlands. "Bogozembe."
2. woodii N.E. Br. Umzinyati Falls.

4. PARIETARIA Tourn.

1 pilosa Willd. Open ground. Coast and Midlands.

5. AUSTRALINA Gaudich.


6. POUZOLZIA Gaudich.


FAMILY 34—PROTEACEAE.

1. Flowers spicate.

2. Anterior perianth segments separating above. Style deciduous.

Fruit glabrous.

3 FAUREA.

1 LEUCOSPERMUM.

Anterior perianth segments united almost to the top into a lip. Style persistent. Fruit covered with dense hairs.

2 PROTEA.
1. **LEUCOSPERMUM** R.Br.
   *gerrardi* Stapf. Only one uncertain record. (Gerrard.)

2. **PROTEA** L. "isiQalaba."
   1. *roupelliae* Meisn. Dominant over considerable areas of "Protea Veld," in the Drakensberg. Also on Midland mountains.
   9. *lanceolata* E.M. Karkloof and Drakensberg.

3. **FAUREA.** Harv.

**FAMILY 35—SANTALACEAE.**


1. Fruit dry. Hemiparasitic herbs or undershrubs. 1 **THESIUM.**
   Fruit succulent. Shrubs or trees.

2. Flowers hermaphrodite. Perianth tube elongate. Two lateral veins of leaf prominent. 2 **OSYRIDOCARPUS.**
   Flowers dioecious or sub-dioecious. Perianth tube above ovary scarcely present. Only midrib of leaf prominent.

3. **OSYRIS.**

1. **THESIUM** L. (Mostly in grassveld, parasitic on grasses.)
   1. *virens* E. M.
   2. *costatum* A. W. Hill. Common all over.
      *costatum* var *juniperinum* A.W.H. Natal and Zululand.
14. lobeliodes A. DC. Hoffenthal, 4,000 ft.
18. corlinerum A.W.H. Coast and Midlands.

2. OSYRIDOCARPUS. A.DC.
   natalensis A.DC. Coast to Drakensberg. Half-climbing shrub.

3. OSYRIS. L. “inTshakasa.” “umBulunyati.”
   abyssinica Hochst. (Colpoon compressum Berg.) Shrub.
   Coast to Drakensberg. Occasional in Thorn veld.

FAMILY 36—OLACACEAE.


caffra Sond. Coastbelt.

FAMILY 37—LORANTHACEAE.


1. Flowers hermaphrodite. “Calyx” more or less developed.
   style long.
   1 LORANTHUS.
   Flowers unisexual. “Calyx” obsolete. Style short or 0.
   2 VISCUM.

1. LORANTHUS L.
   2. subcylindricus Sprague. Umtwalumi on Ochna arborea.
      Nkandhla.
   3. dregei E. Z. Coast and Midlands. Fairly common.
   5. quinquenervis Hochst. Coastbelt.
   6. natalitius Meisn. Coast and Midlands. “umHlalabenyoni.”
7. minor Sprague. Coast and Midlands and Zululand. (Qudeni).
8. kraussianus Meisn. Coast and Midlands. Fairly common.
9. oleifolius Ch. and Schltr. Ifafa, 1,500 ft.

2. VISCUM L.
1. obovatum Harv. Coastbelt.
2. pulchellum Sprague. Tugela Valley.
3. subserratum Schltr. Tugela Valley.
4. nervosum Hochst. Coast and Midlands, frequent.
5. obscurum Thb.
7. anceps E M. Thorn veld.
8. verrucosum Harv. Thornveld.

FAMILY 38—POLYGONACEAE.


2. Stamens more than 6 (usually 8). Anthers erect, Stigma not capitate.
3. Outer 3 lobes of perianth in fruit largest, spinous. 4 EMEX.
   Outer 3 lobes of perianth in fruit smallest, not spinous. 3 RUMEX.
   Perianth segments not united below into a narrow tube. Nuts not 3 winged.

1. OXYGONUM. Burch.
   1. dregeanum Meisn. Coast and Midlands.
   2. alatum Burch. Near Maritzburg.
   3. natalense Schltr. Fairfield, Alexandra County, 2,400 ft.

2. POLYGONUM L.
   1. aviculare L. Midlands and Drakensberg.
   2. alatum Buch-Ham. Near Byrne.
   4. lanigerum R.Br. Moist places on coastbelt.
   7. strigosum R.Br.
   8. acuminatum Kth. var capense Meisn. Alexandra County.
   9. minus Hads.
3. **RUMEX** L.
   8. *natalensis* Dam. sp. nov. Alexandra County.

4. **EMEX** Neck. (Rigid herbs.) “inKunzana.”

**FAMILY 39—CHENOPODIOCEAE.**


1. Stems or branches jointed, apparently leafless. Flower clusters apparently sunk in hollows of branch joints.

   **3 SALICORNIA.**

   Stems or branches not jointed. Leaves well developed. 2.

   2. Perianth 5 parted, more or less herbaceous. Leaves expanded, petiolate.

   Perianth globose, 4—5 lobed, membranous. Leaves narrow, sessile.

   1. **CHENOPODIUM** Linn.
      1. *ambrosoides* L. A common weed.

   2. **CHENOLEA** Thunb.
      *diffusa* Thunb. Forming clumps on mudflats in brackish water at river mouths.

   3. **SALICORNIA** Linn.
      1. *herbacea* L. Common along seashore.
      2. *natalensis* Bunge. Durban Bay.

**FAMILY 40—AMARANTACEAE.**

1. Ovules 2 or more. Anthers 2 celled. Leaves alternate. 2. Ovules solitary.

2. Filaments united at base. Staminodes 0 or very short.

1 CELOSIA.

Filaments united high up. Staminodes longer than filaments.

2 HERMBSTAEDTIA.

3. Anthers 2 celled.

4. Ovule erect, funicle short.

3 AMARANTUS.

5. Flowers 2 or more in axil of each bract, usually some sterile or reduced to spines.


5. Flowers solitary in axil of each bract, bi-bracteolate. All hermaphrodite.

6. Staminodes present.

7. Fruit horned, sterile flowers reduced to straight spines.

6 PUPALIA.

Fruit not horned, spines hooked.

8. Staminodes none.


9 AERVA.

Perianth glabrous or scantily hairy.

10. Filaments connate into a long tube.

10 ACHYRANTHES.

Filaments connate at the base.

11. Stigma 1, capitate.

11 ALTERNANTHERA

Stigmas 2, linear.

12 GOMPHRENA.

1. CELOSIA Linn.


2. triloba E.M.

2. HERMBSTAEDTIA. Reichb.


3. AMARANTUS Linn. "imBuya."

1. spinosus L. Common. Coast and Midlands.

2. paniculatus L. Midlands. Cultivated in India for its grain.

3. thunbergii Moquin. Common all over.

4. CYPHOCARPA Lopr.

1. trichinioides Lopr. Coast and Midlands.

2. angustifolia Lopr. Thornveld, near Mooi River.

5. CYATHULA Lour.

1. cylindrica Moquin. Common all over.

2. globulifera Moquin. Coast and Midlands.

3. natalensis Sond. Durban.

4. spathulifolia Lopr. Coastbelt.

6. PUPALIA Juss.

1. atropurpurea Moquin. Coastbelt.

7. **PSILOTRICHUM** Blume.
   *africanum* Oliv. Coastbelt.

8. **AERVA** Forsk.
   *lanata* Juss. Coastbelt.

9. **ACHYRANTHES** Linn.
   1. *aspera* L. A very common weed, all over.

   2. *leptostachya*. Coast scrub

11. **ALTERNANTHERA** Forsk.
   *sessilis* R.Br. Coastbelt weed.

12. **GOMPHRENA** Linn. Weed. Common all over.
   *globosa* Linn. Common all over.

**FAMILY 41—NYCTAGINACEAE.**

Herbs or shrubs. Leaves usually opposite, entire, exstipulate. Flowers regular. Perianth simple, but often with a calyx-like involucre, 3—6 lobed, monophyllous. Stamens 1—30. Filaments free or connate at base. Ovary superior, 1 celled. Ovule 1, erect, inverted. Style 1, lateral. Fruit a nut, enclosed by persistent base of perianth. Seed endospermic. Embryo straight or curved. 3 genera 6 species.

1. Seed with straight embryo. Spiny scandent shrub.  
   **3 PISONIA.**

   Seed with curved embryo. Herbs not spiny. Leaves opposite. 2.  
   2. Bracts connate like a 5-lobed calyx, large.  
      **1 MIRABILIS.**

      Bracts small, free, often deciduous.  
      **2 BOERHAAVIA.**

1. **MIRABILIS** L.
   *jalapa* L. “Four o'clocks” or “Marvel of Peru.” Common weed.

2. **BOERHAAVIA** Vaill.
   2. *repens* L. Thorn veld, near Weenen.

3. **PISONIA** L.
   *aculeata* L. Tugela. Dry valley scrub.

**FAMILY 42—PHYTOLACCACEAE.**

Herbs or shrubs, erect or climbing. Leaves alternate, entire. Stipules small or 0. Flowers in spikes on racemes, bracteolate. Perianth 4—5 parted herbaceous or membranous (rarely coloured), persistent in fruit. Stamens 3—33, hypogynous. Filaments free
or united at base. Ovary superior, 1—12 celled, or of free carpels. Ovules 1 in each carpel, basal, curved. Seeds endospermic. Embryo annular. 1 genus 3 species.

**PHYTOLECCCA** L.
1. _heptandra_ Retz. Herb 1—3 ft. Midlands and Drakensberg.

**FAMILY 43—AIZOACEAE.**

Herbs or undershrubs. Flowers regular. Perianth simple or of calyx and corolla. Stamens 3 or more. Ovary usually several celled. Ovules curved or inverted. Fruit dry. Seed with mealy endosperm. Embryo curved. 7 genera 16 species.

1. Perianth free from ovary, divided to base, or nearly so. 2. Perianth with a distinct tube, sometimes adnate to ovary, simple. 6. 2. Ovary 2 celled. Style 2 cleft. Fruit separating into 2 nutlets.

**1 LIMEUM.**


**4 MOLLUGO.**

Stipules fringed. Capsule with a stellate opening at apex.

**5 PHARNACEUM.**

6. Ovary superior. **6 AIZOON.**

7. MESEMBRIANTHEMUM. **1 LIMEUM** L.
1. _viscosum_ Fenzl. Near Durban.
2. _natalense_ Schellenb. Coastbelt.

**2 PSAMMOTROPHA** E. and Z.

**3 ORYGIA** Forsk.

**4 MOLLUGO** L.
1. _oppositifolia_ L.

**5 PHARNACEUM** L.
1. _distichum_ Thb. Bluff, near Durban.
6. **AIZOON** L.
   1. *canariense* L. Coastbelt.
   2. *glinoides* L.f.

7. **MESEMBRIANTHEMUM** L.
   1. *edule* L. Dominant in large consociations along seaward margins of sand dune bush. "Khambi lamabulawo."
   4. *sutherlandi* Hk.f.

**FAMILY 44—PORTULACACEAE.**

Herbs or shrubs. Flowers regular or nearly so, hermaphro-dite. Sepals 2. Petals 4—6 free or united at base. Stamens 3—30. Ovary superior or inferior, 1 celled. Ovules basal or placenta free-central. Ovules curved. Fruit a capsule or nut. Seeds endospermic. 2 genera 5 species.

1. Ovary inferior or half inferior. Ovules many. **1 PORTULACA**
   Ovary superior. Ovule 1. **2 PORTULACARIA.**

1. **PORTULACA** L.
   2. *caffra* Thb. Rocky hill, Inanda, 2,000 ft.
   3. *pilosa* L.

   *afra* Jacq. Not uncommon in Thorn veld areas, in places dominant. Coast and Midlands.

**FAMILY 45—CARYOPHYLLACEAE.**


   **1 DIANTHUS.**

   Calyx nude at base. Styles 3—4.


3 CORRIGIOLA.  

Ovules 2 or 4. Leaves opposite or whorled. Petals 0.  

4 POLLICHIA.  

5. Styles united below.  

6. Styles free from the base.  

8 DRYMARIA.  

7. Petals entire, notched, or 2 toothed.  

7. Sepals rounded on back. Style long or rather long.  

9 POLYCARPAEA.  

Sepals sharply keeled. Style short, 3 cleft.  

10 POLYCARPON.  

8. Leaves with scarious stipules.  

Leaves extipulate.  


5 STELLARIA.  

Fruit cylindrical.  

1. DIANTHUS L.  


2. scaber Thb. Drakensberg.  

2. SILENE L.  

1. burchelli Ott. Common. Coast to Drakensberg.  

2. capensis Ott. Drakensberg.  

3. gallica L. Introduced.  

4. thunbergiana E. & Z. Durban.  

3. CORRIGIOLA L.  

littoralis L. Coastbelt, often Ruderal.  

4. POLLICHIA Soland.  

campestris Soland. Ibis, 2,500 ft.  

5. STELLARIA L.  

media Cyrill. An introduced weed.  

6. CERASTIUM L.  


7. SPERGULA L.  

arvensis L. An introduced weed.  

8. DRYMARIA Willd.  

cordata Willd. Coastbelt and Midlands.  

9. POLYCARPAEA Lam.  

corymbosa Lam. Umhlanga, 500 ft.  

10. POLYCARPON Loefl.  

tetraphyllum L. Ruderal.  

FAMILY 46—NYMPHAEACEAE.  

Aquatic plants with submerged prostrate rootstocks, throwing up leaves and flowers. Leaves floating, cordate. Flowers
solitary hermaphrodite, large and showy. Sepals 3 or more. Petals usually numerous. Stamens many. Carpels 6 or more, distinct or united into a many-celled ovary. Seeds endospermic. 1 genus 2 species.

**NYMPHAEA** (L.) Smith. "iZibu."
2. *madagascariensis* DC. (? or near it). Coastbelt. (Figured in Medley Wood's Natal Plants, p. 33, as *N. stellata* Willd).

**FAMILY 47—CERATOPHYLLACEAE.**


**CERATOPHYLLUM** L.
*demersum* L. Fairly common. Coastbelt and Zululand.

**FAMILY 48—RANUNCULACEAE.**

Herbs, shrubs or climbers. Leaves usually divided. Perianth simple or of calyx and corolla. Stamens many. Carpels hypogynous or many, usually free. All parts usually spirally arranged. Ovules inverted. Seeds endospermic. 5 genera 14 species.

1. Petals with a pit or scale at the base or middle.
   2. Petals without a pit or scale.
2. Leaves opposite. Slender shrubs, usually climbing.

**2 RANUNCULUS.**


**1 CLEMATIS.**


**3 KNOWLTONIA.**

4. *THALICTRUM.*

5. *ANEMONE.*

3. **KNOWLTONIA** Salisb.

4. **ANEMONE** L.

5. **THALICTRUM** L.
   rhynocarpum Dill & Rich. Midland and mountains. Around margins of bush, etc.

**FAMILY 49—MENISPERMACEAE.**

Shrubs or half shrubs, slender, often climbing. Leaves alternate, nearly always exstipulate. Flowers small, unisexual, usually dioecious. Sepals 1—8. Petals 1—6 or 0. Stamens usually as many as petals and opposite to them. Carpels 1—many. Ovules solitary. Fruit of small drupes. 3 genera 6 species.

1. Female flower. Sepals 3—5, petals 3—5.
   1. **STEPHANIA.**
   Female flower. Sepals 1—2, petals 1—2.

3. **CISSAMPELOS.**
   1. **STEPHANIA.** Lour. "umTambane."
   hernandaeefolia Walp. Coast to Drakensberg. Often in ant bear holes.
   2. **ANTIZOMA** Miers.
   angustifolia Miers. Near Weenen, 2-3,000 ft.

3. **CISSAMPELOS** L. (Climbers.)
   1. pariera L. Coast and Midlands.
   2. torulosa E.M. Coast and Midlands.
   3. natalensis Szysz. Coast and Midlands.
   4. burchelliana Miers. Inchanga, 2,000 ft.

**FAMILY 50—ANONACEAE.**

Trees or shrubs, often climbing. Leaves entire, exstipulate. Flowers usually hermaphrodite. Sepals 3 (rarely 2), valvate. Petals 3—6 free or united at base. Stamens 6 or many, filaments thickened upwards. Carpels 3 or more, superior, free or united. Ovules inverted. Fruit usually a berry. Seeds with ruminate endosperm. 4 genera 5 species.

1. Carpels united in fruit. Outer petals fleshy, concave.
   4. **ANONA.**
Carpels free till maturity, shortly stalked.  
   Petals valvate in bud. Ovules 1—2.  
3. Petals thick, spreading. Stalks of inflorescence and flowers usually thickened and hooked.  
   Petals thin, not spreading. 
1. **UVARIA** L. "Mazwenda."  
   **caffra** E.M. Climber in bush. Coast and Midlands.  
2. **ARTABOTRYS** R.Br.  
   **monteiroae** Oliv. Climber in bush. Coastbelt. Rare.  
   1. **caffra** Hk.f. and Thoms. Climber in bush. Coast and Midlands.  
4. **ANONA** L.  
   **senegalensis** Pers. Shrub. Coastbelt and Zululand.  

**FAMILY 51—MONIMIACEAE.**

Trees or shrubs. Leaves simple, exstipulate. Flowers unisexual. Perianth simple 3—6 lobed. Stamens 10 or more. Carpels 1 or more, separate, often sunk in the receptacle. Ovule 1. Seeds with fleshy endosperm. 1 genus 1 species.  
   **monospora** Baill. Tree, throwing dense shade. Dominant or subdominant in much of the moister Midland forests.  

**FAMILY 52—LAURACEAE.**

1. Twining parasitic herb, without chlorophyll.  
   3 **CASSYTHA.**
   2.  
      1 **CRYPTOCARYA.**
      2 **OCOTEA.**
      1. **CRYPTOCARYA** R.Br. "xoboti," "umXaleba," "umTung-wane," "umCutunga."  
      1. **latifolia** Sond. Coast and Midlands. Large tree. "umCutungwa."

   *bullata* E. M. Tree 60—80 ft. high. Midland and mountain forests.

3. *CASSYTHA* L.
   1. *filiformis* L. Coastbelt.
   2. *ciliolata* Nees.

**FAMILY 53—PAPAVERACEAE.**

Herbs. Leaves usually divided. Flowers hermaphrodite. Sepals 2, rarely 3. Petals 4, rarely 6, free. Stamens 2—many. Ovary superior, 1 celled or incompletely 2 or more celled. Ovules parietal, curved or inverted. Fruit a capsule or nut. Seed endospermic. 4 genera 5 species.

1. Petals (at least 1) spurred. Stamens in 2 bundles, 3 and 3. 2. Petals not spurred. Stamens 4—20. 3. 2. Ovules 3 or more. Fruits 3 or more seeded, pod like.

**4 Corydalis.**

Ovules 1—2. Fruit 1—2 seeded, subglobose, indehiscent.

**3 Fumaria.**


**1 PAPAVER.**

Juice yellow. Petals yellow or white. Prickly plant.

**2 Argemone.**

1. *PAPAVER* L.
   *aculeatum* Thb. Midlands and Drakensberg.

2. *ARGEMONE* L.
   *mexicana* L. Common weed. Introduced.

3. *FUMARIA* L.
   *officinalis* L. In open ground. Coast and Midlands.

4. *CORYDALIS* DC.
   1. *pruinosa* E. M. Midlands, in bush.
   2. *cracca* Schltr. Drakensberg, 8,000 ft.

**FAMILY 54—CRUCIFERAE.**

Herbs or shrubs. Leaves alternate, or lower opposite, exstipulate. Flowers hermaphrodite. Sepals 4, rarely 0; stamens 6 (4 longer, 2 shorter). Ovary superior 1—2 celled or transversely septate. Ovules parietal, curved, style 1, stigmas 1—2. Fruit dry, usually 2 valved. Endosperm scanty or wanting. Embryo curved. 9 genera 16 species,
1. Fruit (silicula) not 3 times as long as broad.
   Fruit (siliqua) 3 or more times as long as broad.
2. Fruit indehiscent at maturity, seeds solitary.
   5 SENEBIERA.
   Fruit dehiscent at maturity.
   Seeds numerous in each cell.
4. Fruit with flat valves.
   6 LEPIDIUM.
   Fruit with round backed, convex valves.
5. Stigma equally developed all round. Cotyledons twice folded.
   7 CAPSELLA.
   Stigma more developed above the placentas than between them. Cotyledons not twice folded.
6. Fruit valves without distinct veins, opening elastically.
   3 CARDAMINE.
   Fruit valves with distinct veins, not elastic.
7. Fruit transversely divided into two or more fertile cells.
   2 ARABIS.
8. Radicle of embryo accumbent (0—). Water or marsh plants.
   8 BRASSICA.
   Fruit not transversely septate, but sometimes produced into a seedless beak.
   1 NASTURTIIUM R.Br.
1. officinale R.Br. In pools along streams.
2. fluviatile E.M. In pools along streams.
2. ARABIS L.
   perfoliata Lam. Banks of Mooi River, 4,000 ft.
3. CARDAMINE L.
   africana L. Ravines. Inanda, 1,800 ft.
4. SISYMBRIUM L.
   capense Thb. Near Verulam, 800 ft.
5. SENEBIERA DC.
   pinnatifida DC. Introduced weed.
6. LEPIDIUM L. "uMathoyisa."
   capense Thb. Very common weed. All over.
7. CAPSELLA Vent.
   bursa-pastoris Moench. Weed, not very common.
8. BRASSICA L.
   strigosa DC. Coastbelt.
9. HELIOPHILA L.
   1. woodii Conrath. Coast and Midlands.
   2. subulata Burch. Drakensberg.
   3. stricta Sond. Giants Castle, 10,000 ft.
4. **rigidiuscula** Sond. Coast and Midlands.
5. **scandens** Harv. Sand dunes, near the sea.
6. **suavissima** Burch. Mont Aux Sources, 8,800 ft.
7. **virgata** Burch. Coast to Drakensberg. Common.

**FAMILY 55—CAPPARIDACEAE.**

Trees, shrubs or herbs, often climbing. Leaves alternate. Flowers usually regular. Petals wanting or free, usually 4. Ovary superior, usually stalked. Ovules 4 or more, curved. Fruit a capsule or berry. Seeds exendospermic. Embryo curved. 4 genera 17 species.

1. Annual herbs. Fruit a dry, dehiscent, pod-like capsule.

1. **CLEOME** L. (Annual herbs.)
   1. **monophylla** L. Midlands and Drakensberg.
   2. **rubella** Burch. Midlands.

2. **MAERUA** Forsk (including **Nieububria** DC.) (Mostly shrubs.)
   1. **angolensis** DC.
   2. **rosmarinoides** (Sond). Gilg and Benedict. Coastbelt scrub.
   4. **triphylla** Dur. & Schinz. (**Nieubhria triphylla** Wendl.) Coast and Midlands.

3. **CADABA** Forsk.
   1. **natalensis** Sond. Coastbelt shrub or climber.

   1. **tomentosa** Lam. (**corymbifera** E.M.) Coast and Midlands. Common.
   3. **calvescens** Gilg and Benedict. Tugela valley.
   4. **zeyheri** Turcz. Coast and Midlands.
   5. **solanoides** Gilg and Benedict. Little Noodsberg, 2,000 ft.

**FAMILY 56—RESEDACEAE.**


**OLIGOMERIS** Cambess.

dregeana Presl. Coast and Drakensberg. Van Reenen.

**FAMILY 57—DROSERACEAE.**


**DROSERA** L.


**FAMILY 58—PODOSTEMONACEAE.**


Flowers regular, 3 parted.
Flowers irregular. Perianth of 2 scales. 1 **TRISTICHA.**

2 **SPHAEROOTHYLAX.**

1. **TRISTICHA** Thouars.
   hypnoides Spreng. Midland rivers. Fairly common.
2. **SPHAEROOTHYLAX** Bischoff.
   algiformis Bisch. Apparently rare. (Doubtful.)
   (The Tristichaceae have recently been separated by Willis as a distinct family.)

**FAMILY 59—HYDROSTACHYACEAE.**

Aquatic herbs attached to rocks in streams. Leaves with a sheath and ligule. Flowers dioecious. Stamens 1 with separated

**HYDROSTACHYS** Thouars.

*natalensis* Wedd. Midland rivers. Fairly common.

**FAMILY 60—CRASSULACEAE.**

Herbs or undershrubs, usually succulent. Leaves exstipulate. Flowers regular, hermaphrodite. Petals 3—20, free, or united below. Stamens as many, or twice as many as petals. Carpels as many as petals, free or united at base, usually with a scale-like appendage. Ovules numerous, rarely 1—2 in each carpel. Fruit follicular. Seeds with little or no endosperm. 3 genera 56 species.

1. Stamens as many as sepals or petals. 3 **CRASSULA.**
   Stamens twice as many as sepals or petals. 2.
2. Sepals 4. Petals 4. 2 **KALANCHOE.**
   Sepals 5. Petals 5. 1 **COTYLEDON.**

1. **COTYLEDON** L.
   *orbiculata* L. Midlands. Common.

2. **KALANCHOE** Adans.
   3. *longiflora* Schltr. Near Dumbeni. Weenen County. 3-4,000 ft.

3. **CRASSULA** L. "inTelegi."
   3. *centauroides* L. Common in shade. Coast and Midlands
   5. *cordata* Ait. Umlaas Native Location.
   8. *crenulata* L.f. Inanda, 2,000 ft.
   11. *dregeana* Harv.
   17. *inandensis* Schön. Inanda.
18. involucrata Schön. Insiswa Mountains.
19. lactea Ait. Inanda.
20. latispathulata Schön. Izingolweni, 2-3,000 ft.
21. meyeri Harv.
22. multicava Lem. Inanda.
23. muscosa L. Midlands and Drakensberg. In woods.
24. natalensis Schön. Illovo.
25. orbicularis L.
27. parvula Endl. Groenberg, 2,000 ft., and Drakensberg.
29. portulacea Lam.
30. recurva N.E.Br. Zululand.
32. rubicunda E.M. Common all over. “isiKelehlane.”
33. sarcocaulis E. & Z. Midlands and Drakensberg.
34. sarmentosa Harv. Inanda.
35. sediflora Endl. Boston, 3,000—4,000 ft.
36. sessilifolia Baker.
37. stachyera E. & Z. Common all over.
38. subulata L. Van Reenen, Drakensberg.
39. tenuicaulis Schön. Van Reenen.
41. vaginata E. & Z. Common all over.
42. woodii Schön. Midlands.
43. rubescens Schön and Bak.f. Drakensberg, 9,500 ft.
44. campestris (E. & Z.) Harv. Midlands and Drakensberg.
45. transvaalicensis O.K. Coast to Drakensberg.
46. inchangensis Engler. Inchanga, 2-3,000 ft.
47. scheppingiana Diels. Coldstream, 5-6,000 ft.
49. harveyi Britt. and Bak.f. Drakensberg.

FAMILY 61—SAXIFRAGACEAE.

Herbs, shrubs or trees. Petals 4—5, free or united below stamens 4—10. Ovary 1—7 celled, superior or inferior. Ovules numerous, inverted. Seeds endospermic. 1 genus 1 species.

Flowers polygamous. Petals 5, stamens 5, ovary 2 celled, many ovuled. Capsule inferior or half inferior.

CHORISTYLIS Harv. “uBubu.”

FAMILY 62—PITTOSPORACEAE.

Trees or shrubs. Leaves alternate, undivided, exstipulate. Flowers regular, hermaphrodite. Sepals 5, free or nearly so.
Petals 5, free or united below. Stamens 5 hypogynous. Disc none. Ovary superior 1 celled or incompletely 2—5 celled. Style simple. Stigma entire or lobed. Ovules numerous inverted, ascending or horizontal. Fruit a loculicidal capsule. Seed endospermic. 1 genus 1 species.

PITTOSPORUM Banks. “umFusamvu.” “umKwenkwe.”

viridiflorum Sims. Common tree in all bush. Coast to Drakensberg.

**FAMILY 63—CUNONIACEAE.**


**FAMILY 64—MYROTHAMNACEAE.**


MYROTHAMNUS Welw.

flabellifolius Welw. Locally dominant over rocks in upper districts. Near Vryheid.

**FAMILY 65—BRUNIACEAE.**

Undershubs or shrubs. Leaves alternate, exstipulate, small. Flowers usually in heads, hermaphrodite, 4—5 merous. Petals free or united below. Stamens 4—5. Ovary inferior or half inferior, 1—3 celled. Ovules 1—4 in each cell, pendulous, inverted. Styles 1—3. Fruit a capsule or nut. Seeds endospermic. 1 genus 1 species.

BERARDIA Sond.


**FAMILY 66—HAMAMELIDACEAE.**

Ovules 1 in each cell, pendulous inverted. Styles 2. Fruit capsular. Seeds with thin endosperm. 1 genus 2 species.

**TRICHOCLADUS** Pers. “isiTambo.”

**FAMILY 67—ROSACEAE.**

Herbs, shrubs or trees. Leaves alternate, stipulate. Receptacle usually concave. Flowers hermaphrodite or unisexual. Perianth simple or of calyx and corolla. Stamens usually numerous, rarely few. Carpels 1 or many, free or inferior, and more or less united. Ovules inverted. 8 genera 22 species.

1. Carpel 1 with 2 ovules, sometimes 2 celled.
2. Carpels 2 or more, or if 1, then 1 ovuled. Flowers regular.
3. Style terminal or nearly so. Petals sepaloid or 0. Tree.

**7 PYGEUM.**
Style basal. Ovules erect. Low shrub.

**8 PARINARIA.**
3. Receptacle tightly enclosing carpels, especially in fruit.
4. Receptacle cup or saucer shaped not tightly enclosing carpels.


**6 CLIFFORTIA.**

Flowers hermaphrodite.

**5 ALCHEMILLA.**

**3 ALCHEMILLA.**

Petals present.

**5 AGRIMONIA.**
6. Herbs.

**4 LEUCOSIDEA.**
7. Shrubs or trees.

**2 GEUM.**
7. Herbs.

Prickly scrambling shrubs. “Brambles.”

**1 RUBUS.**

“Tshalo.”
4. *rosaefolius* L. Eshowe. Introduced?

**2 GEUM L.**
capense Thb. Wet places. Midlands and Drakensberg.

**3 ALCHEMILLA L.**
3. *madagascarensis* O. Hoffm.
5. *natalensis* Engl. Weenen County, 4,000 ft.

**4 LEUCOSIDEA E. & Z. “inClabibi.” “inTshitshi.”**

sericea E. & Z. Dominant in mountain scrub. Important
pioneer in forest succession in Drakensberg. (Oudehout.)

5. **AGRIMONIA** L. "uMakhuthula."
   **eupatoria** L. var **capensis** Harv. Common in Midlands.

6. **CLIFFORTIA** L.
   1. **linearifolia** E. & Z. Common or often dominant around margins of bush, Midlands and Drakensberg.
   2. **octandra** Cham.
   3. **serpyllifolia** Ch. and Sch. In marshy ground, Inanda and Zululand.
   4. **serrulata** Diels. Zululand, 5,000 ft.
   7. **prostrata** Schltr. Drakensberg.
   8. **n. sp.** Tabanhlope. (Evans.)

7. **PYGEUM** Gaertn. "Dumizulu." "Xalote." "umKokoke."
   **africanum** Hk.f. Tree. Common in Midland forest, near water.

8. **PARINARIUM** Juss.
   **capense** Harv. var **latifolia** Oliv. N.E. Zululand.

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**FAMILY 68—CONNARACEAE.**


**CNESTIS** Juss. "Hlozi."
   **natalensis** Pl. & Sond. Coast and Midlands. Common.

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**FAMILY 69.—LEGUMINOSAE.**

Herbs, shrubs or trees. Leaves usually compound and stipulate. Flowers regular or irregular. Sepals usually 5. Petals usually 5 and free. Sometimes united, rarely 0. Stamens 5—10, or numerous. Ovary superior, 1 celled. Ovules inserted at the ventral suture. Style simple. Stigma entire. Fruit 1—2 or transversely several celled, opening along ventral suture or separating transversely or indehiscent. Seeds usually exendospermic. 58 genera 280 species.

   Petals imbricate in bud or rarely absent. Flowers irregular, or rarely nearly regular. 6.
2. Stamens as many or twice as many as petals.  3.
Stamens indefinite, numerous.  5.
3. Upper flowers hermaphrodite (yellow). Lower neuter (white
or red).
Flowers all alike.  
4. Flowers sessile.  
Flowers stalked.  
5. Filaments free or inner united.
Filaments united in a tube.  
6. Petals absent, or if present the posterior one (the one next
the placenta), inside in the bud (Caesalpinioideae).  
7. Petals 5, the posterior outside in the bud.
(Papilionatae)  
7. Leaves simple, 2 lobed.
Leaves pinnate or bipinnate.  
8. Leaves bipinnate.
Leaves pinnate.  
Stamens less than 10 perfect. Anthers opening by pores.
10.Filaments free or nearly so. (Podalyrieae and Sophoreae)  
11. Filaments united or all united except one.  
11. Leaves simple or unifoliolate.  
Leaves pinnate or trifoliolate.  
12. Flowers pink or purple. Calyx subequally 4-5 cleft.
1. PODALYRIA.  
Flowers yellow or white. Calyx deeply slit in one or two
places.  
46 BAPHIA.  
13. Fruit flat, compressed, membranous.  
47 CALPURNIA.  
Fruit terete, moniliform, constricted between the seeds.
48 SOPHORA.  
14. Connective of stamens produced into a small point, gland or
tuft of hairs. Keel with a spur or prominence on each
side near the base. One stamen free. Hairs fixed by a
medial point (strigose). Flowers red or purple, rarely
white.  
15 INDIGOFERA.  
Plants differing from Indigofera.  
15. Ovary sessile, 1 ovuled, not ripening underground. 1 stamen
free. Leaves never with stipels, usually with resinous
glandular dots. Stipules free or adnate to petiole.
Flowers blue, purple or white.  
14 PSORALEA.  
Ovary 2 or more ovuled or otherwise differing from Psoralea.
16.  
Filaments all or the alternate ones broadened at the apex.  
17. Filaments not broadened at the apex.
17. Keel beaked. Lower two leaflets like stipules. 13 LOTUS.
   Keel blunt or slightly pointed. 18.
18. Herbs. Petals adnate to the staminal tube. 12 TRIFOLIUM.
   Shrubs. Stem woody. 17 MUNDULEA.
19. Herbs with equally pinnate leaves, the common petiole pro-
   duced into a bristle or tendril (introduced). 20.
   Petiole not produced. 21.
20. Stamens 9. 32 ABRUS.
   Stamens 10. 31 VICIA.
   Fruit not ripening underground. 23.
22. Filaments all united (monkey nut). 25 ARACHIS.
   One stamen free. 40 VOANDZEIA.
23. Leaves simple, unifoliolate or wanting 24.
   Leaves compound. 34.
   Anthers uniform. 29.
25. Leaves stipulate. Style bearded on inside near apex. 9 CROTALARIA.
26. Calyx lobes distinctly unequal. 2 upper broadest. 27.
   Calyx lobes more or less equal. 28.
27. Leaves scattered, flat. 2 RAFNIA.
   Leaves fascicled, linear. 5 ASPALATHUS.
28. Leaves sessile, fascicled. 5 ASPALATHUS.
   Leaves more or less stalked, not fascicled. 4 LEBECKIA.
29. Uppermost stamen united with the others in the middle, at
   least when young, free at the base. 30.
   Uppermost stamen free throughout. 31.
30. Fruit jointed. Upper calyx lobes more or less united. 28 DESMODIUM.
   Leaflets usually with stipels. 33.
   Fruit not jointed. Stigma usually hairy. Leaflets usually
   with parallel side nerves and no stipels. 16 TEPHROSIA.
31. Ovules 3 or more. Fruit jointed. 30 ALYSICARPUS.
   Ovules 2. Fruit not jointed. 32.
32. Fruit turgid. 44 FLEMINGIA.
   Fruit compressed. 33.
33. Upper calyx lobes separate or shortly united. Seeds oblong
   without an outgrowth at hilum. Seedcord excentral. 43 ERIOSEMA.
   Ovary usually very hairy. Upper calyx lobes more or less united. Seeds orbicular or
   reniform with an outgrowth at the hilum. Seed cord
   central. Ovary glabrous or pubescent. 42 RHYNCHOSIA.
34. Anthers of 2 kinds, 5 basifixed, 5 versatile (or 5 rudimentary) 35.
Anthers all uniform.

Leaves digitate.
Leaves pinnate.

All the filaments united in a tube.
The filaments united in a sheath which is split down.

Leaflets 2 or 4, rarely 3. Fruit jointed, bristly indehiscent.

Leaflets 3. Fruit not jointed, dehiscing.

Style bearded on inside towards apex.
Style not bearded.

Calyx 2 lipped, upper 2, lower 3 toothed.
Calyx segments equal or 4 upper united in pairs.

Keel longer than standard. Leaves exstipulate.

Keel shorter than standard. Leaves stipulate.

Fruit glandular, hairy or viscid. Calyx usually shortly 2 lipped.
Bracteoles leaflike.
Fruit hairy, but not glandular. Calyx deeply 2 lipped.
Bracteoles usually small.

Fruit ovate, 1—3 seeded. Shrubs.
Fruit linear, lanceolate or oblong.
Upper calyx segments united in pairs. Fruit flat. Leaves usually with 1—2 stipules.
Calyx oblique, 5 toothed. Fruit usually linear. Leaves exstipulate.

Leaves equally pinnate.
Leaves imparipinnate, numerous.

Leaflets with stipels. Corolla red.
Leaflets without stipels. Corolla yellow.

Leaves abruptly pinnate.
Leaves imparipinnate or digitate.

Fruit jointed.
Fruit not jointed, dehiscing by 2 valves.

Fruit enclosed in an enlarged calyx.
Fruit much exceeding calyx.

Fruit transversely septate.
Fruit longitudinally 2 celled (more or less).

Leaflets 3.
Leaflets more than 3.

Leaflets without stipels.
Leaflets with stipels.

Fruit spirally twisted.
Fruit not spirally twisted.
53. Petals (at least the lower) adnate to staminal tube.

   Petals free from staminal tube.  

54. Ovules many.
  Ovules 2.
55. Leaves digitate. Fruit turgid.
  Leaves pinnately trifoliolate. Fruit compressed.
56. See 33. Eriosema or Rhynchosia.
57. Stem woody throughout.
  Stem herbaceous or woody at base only.
58. Fruit jointed. Flowers not very large.


60. Fruit jointed, separating transversely.

61. Uppermost stamen not free, except sometimes at the base.
62. Calyx bilabiate. Upper lip large 2 lobed, lower small.

63. Style hairy above.
  Style glabrous or hairy only at base. (Sometimes stigma hairy).
64. Calyx sub-equally 4—5 toothed. Style with hooked point.

65. Keel spirally twisted.
  Keel curved inwards, but not spirally twisted.
66. Ovules 1—2, usually 2.
  Ovules 3 or more.
67. Bracteoles present.
  Bracteoles absent.
68. See 33. Eriosema or Rhynchosia.
69. Calyx entire or obscurely toothed, gibbous at base.

70. Wings free from keel. Flowers small, red. Leaflets large.
  Plant hairy.
  Wings adhering to keel.

71. Fruit jointed. Flowers not very large.

72. Style hairy above.
  Style glabrous or hairy only at base. (Sometimes stigma hairy).
73. Calyx sub-equally 4—5 toothed. Style with hooked point.

74. Keel spirally twisted.
  Keel curved inwards, but not spirally twisted.
75. Ovules 1—2, usually 2.
  Ovules 3 or more.
76. Bracteoles present.
  Bracteoles absent.
77. See 33. Eriosema or Rhynchosia.
78. Calyx entire or obscurely toothed, gibbous at base.

79. Wings free from keel. Flowers small, red. Leaflets large.
  Plant hairy.
  Wings adhering to keel.

80. Fruit jointed. Flowers not very large.
71. Climbers in bush.
   Trees, shrubs or herbs, erect.  
72. Stem herbaceous or woody at base only.  
   Stem woody throughout.  
73. Fruit jointed transversely (rarely reduced to a single 1-seeded joint).  
   Fruit not jointed.  
74. Fruit enclosed by enlarged calyx.  
   Fruit much exceeding calyx.  
75. Tree. Fruit large, woody.
   Undershrubs.  
76. Fruit more or less longitudinally septate.  
   Fruit not longitudinally septate.  
77. Uppermost stamen united with others at middle, at least when young. Fruit coriaceous.
   Uppermost stamen free throughout. Fruit membranous.  
78. Standard shorter than the acute keel.  
   Standard longer than the blunt keel.  
1. **PODALYRIA** Lam.  
   **velutina** Burch. Midlands.  
2. **RAFNIA** Thb.  
   sp. (Wood 3008). Inyangwine, 500 ft.  
3. **LOTONONIS** DC. (Mostly in grassveld.)  
   1. **adpressa** N.E.Br. Stony hill, Charlestown, 5-6,000 ft.  
   2. **calycina** Bth. Midlands and Drakensberg.  
   3. **carinata** Bth. Midlands and Drakensberg.  
      "umHlambaluka."
   5. **cytisoides** Bth. Coastbelt.  
   7. **eriantha** Bth. Midlands and Drakensberg.  
   8. **foliosa** Bolus. Drakensberg foothills, Zululand.  
   9. **grandifolia** Bolus. Van Reenen.  
10. **haygarthi** N.E.B. Zululand.  
11. **lanceolata** Bth. Midlands, Drakensberg and Zululand.  
12. **laxa** E. and Z. Hoffenthal, 4,000 ft., and Drakensberg.  
13. **malacophylla** Guerke.  
15. **schlechteri** Schinz. Zuurberg, 4,000 ft.  
16. **sessilifolia** Harv.  
17. **tenella** E. and Z. var **glabra**. Van Reenen.  
18. **woodii** Bolus. Mahwaqa, 6-7,000 ft.  
20. wyliei Wood. Zululand, 3,000 ft., and Drakensberg.

4. LEBECKIA Thb.
   1. macrantha Harv. and Sond. Zululand.
   2. mucronata Umbumbulu, 1,500 ft.

5. ASPALATHUS L.
   1. canescens L. Midlands.
   2. eriophylla Walp.
   3. gerrardi Bolus. Coastbelt.
   5. spinosa L. Coast and Midlands. Very common.

6. BUCHENROEDERA E. & Z.
   1. biflora Bolus. Zululand, 1,500 ft.
   2. lotononoides Scott Elliott. Van Reenen.
   3. natalense Baker.
   4. sparsiflora Wood & Evans. Drakensberg, 8-9,000 ft.
   5. glabrescens Dummer.
   7. glabrifolia N.E. Br. Drakensberg, Mont Aux Sources, 8,850 ft.

7. MELOLOBIUM E. & Z.
   3. decumbens Bth. Drakensberg.
   4. microphyllum E. & Z. var decumbens. Bushman’s River Valley, 6-8,000 ft.
   5. obcordatum Harv. Upper Tugela, 4,000 ft.
   6. mixtum Dummer. Coldstream.

8. DICHLILUS DC.
   1. lebeckioides DC. Midlands and Zululand.
   2. strictus E.M. Drakensberg. Foothills.

9. CROTALARIA L. Mostly in grassveld.
   1. burkeana Bth. Midlands.
   2. capensis Jacq. Coast and Midlands: “uMayehlezana.”
   3. distans Bth. Thornveld.
   5. grantiana Harv. Inanda.
   8. macrocarpa E.M. Umkomaas.
   10. saltiana Ands. (striata D.C.) Coast.

9a. CYTISUS L.
   natalensis Bolus. Bushman’s River Pass, 6,300 ft.

10. ARGYROLOBIUM E. & Z. Mostly in grassveld.
   **andrewsianum** var **racemosum** Harv. Inanda. Common.
   **andrewsianum** var **pauciflorum** Harv. Mahwahqa, 6-7,000 ft.
2. **ascendens** Walp. Coast and Midlands.
3. **longifolium** Walp. Coast and Midlands.
4. **longipes** N.E.B. Midlands.
5. **marginatum** Bolus. Coast to Drakensberg.
6. **molle** E. and Z.
7. **nanum** Schltr. Van Reenen.
8. **nigrescens** Dummer. Van Reenen.
9. **pauciflorum** C. and Z. Camperdown.
10. **reflexum** N.E.B. Zululand, 1-2,000 ft.
12. **sandersoni** Harv. Midlands.
20. **variopile** N.E.B. Drakensberg.
21. **amplexicaule** Dummer. Inanda to Drakensberg.
22. **sankeyi** Dummer. Drakensberg.
23. **pilosum** Harv. Drakensberg, 8,000 ft.

11. **MEDICAGO** L.
   1. **denticulata** Willd. Midlands.
   2. **laciniata** Mill. Midlands and Drakensberg.

12. **TRIFOLIUM** L.
   1. **africanum** Ser. Coast to Drakensberg. Common.
   2. **burchellianum** Ser. Midlands.

13. **LOTUS** E.M.

14. **PSORALEA** L.
   1. **caffra** E. & Z. Coast and Midlands.
   2. **pinnata** L. Midlands and mountains. “umHlonishwa.”
   3. **polysticta** Bth. Midlands and mountains.

15. **INDIGOFERA** L. (Mostly in Grassveld.)
   1. **alternans** DC. Zululand.
   2. **argyracea** E. & Z. Zululand.
   3. **arrecta** Hochst. Coast and Midlands. “umPekambedu.”
   4. **corniculata** E.M. Coast.
   5. **cryptantha** Bth.
   6. **cylindrica** DC. Near Durban.
8. **denudata** Thb. Zululand.
10. **dregeana** E.M. Coastbelt.
12. **evansii** Schltr. Drakensberg.
14. **fastigiata** E.M. Common all over.
15. **filipes** Bth. Zululand.
16. **foliosa** E.M. Midlands.
17. **gerrardiana** Harv. Midlands.
18. **grata** E.M. Coast.
20. **heterotricha** DC. Zululand.
22. **hirsuta** Harv. Midlands and Drakensberg.
23. **longipes** N.E.B. Midlands.
24. **micrantha** E.M. Coastbelt. "isiKhubabende."
26. **oxytropis** Bth.
27. **parviflora** Heyne. Weenen County.
29. **rhytidocarpa** Bth. Ladysmith.
30. **rostrata** Bolus. Midlands.
31. **rufescens** E.M.
32. **sarmentosa** L.
33. **schlechteri** Baker. Insiswa, Drakensberg, 7,000 ft.
34. **setosa** N.E.Br. Umhloti.
35. **tenuissima** E.M.
36. **tetragonoloba** E.M. Coast. Umzinyati Falls.
37. **tristis** E.M. Coast and Midlands.
38. **velutina** E.M. Near Durban.
39. **vestita** Harv. Coastbelt.
40. **viminea** E.M. Inanda.
41. **woodii** Bolus. Coast and Midlands.
42. **alopecurus** Schltr. Alexandra County.
43. **zeyheri** Spreng. Drakensberg, Charlestown.
44. **cuneifolia** E. & Z. Cathkin Peak, Drakensberg, 10,000 ft.

16. **TEPHROSIA** Persoon. (Mostly in grassveld.)
1. **aemula** Harv.
2. **amoena** E.M. Coastbelt and Zululand.
4. **capensis** Pers.
   - **capensis** var **angustifolia**. Near Ladysmith, 3-4,000 ft.
   - **capensis** var **hirsuta**. Near Newcastle, 4,000 ft.
7. **elongata** E.M. Coast and Midlands.
8. **glomeruliflora** Meisn. Near Greytown, 3-4,000 ft.
   Common in old kaffir gardens.
    "inTsangwana."
    "uQwengu" or "Lozane."
13. **oblongifolia** E.M. Inanda, 1,800 ft.
14. **pallens** Pers.
15. **plicata** Oliv.
17. **MUNDULEA** DC.
    **suberosa** Bth. Midlands.
18. **MILLETTIA**. Wight & Arn.
    1. **caffra** Meisn. Tree of coastbelt forests. "umZimbiti."
    2. **sutherlandi** Harv. Tree in Zululand forests. Ngoye.
    "umKunye."
19. **SESBANIA** Persoon.
    2. **aegyptiaca** Poir. Coast and Midlands.
    3. **cinerascens** Welw. Itafamasi and Insuzi.
    **frutescens** R.Br. Mountains. Common in Drakensberg,
    especially along streams.
21. **LESSERTIA** DC.
    1. **perennans** DC. Coast to Drakensberg.
    2. **flanagani** L. Bolus.
    3. **dykei** L. Bolus. Mont Aux Sources, 9,800 ft.
    4. **thodei** L. Bolus. Mont Aux Sources, 9,800 ft.
    5. **stenoloba** E.M. Drakensberg, 9,000 ft.
    6. **tenuifolia** E.M. Zululand.
    7. **brachystachya** DC. Ubombo, Zululand. Grassveld.
22. **ASTRAGALUS** L.
    **burkeanus** Schltr. Near Ladysmith, 3-4,000 ft.
23. **AESCHYNYMONENE** L.
    1. **erubescens** E.M.
    2. **micrantha** DC. Coast grassveld. Common.
    3. **uniflora** E.M. Vlei near Phoenix Station.
24. **SMITHIA** Ait.
    **sensitiva** Ait. Coast and Midlands. Common.
25. **ARACHIS** L.
    **hypogaea** L. Cultivated "Monkey nut."
26. **STYLOSANTHES** L.
    **mucronata** Willd. Zululand, 500 ft.
27. ZORNIA Gmelin.

28. DESMODIUM Desv.
   2. gangeticum DC.
   4. incanum DC. Near Durban.
   5. paleaceum Guill and Pers. Coastbelt and Zululand.
   6. scalpe DC. Coast to Midlands.

29. PSEUDARTHRIA. Wight & Arn. “uPandosii.”
hookeri W. & A. Coast and Midlands. Common.

30. ALYSICARPUS Necker.
rugosus DC. Inanda. “inKonazana.”

31. VICIA L.
sativa L. Introduced.

32. ABRUS L.
   1. precatorius L. Cultivated. “umKhokha.”
   2. pulchellus Wall. Midlands.

33. DUMASIA DC.
villosa DC. Noodsberg, 2,300 ft. Climbing over shrubs.

34. GLYCINE L.
   1. javanica L. Coast and Midlands. Common.
   2. wilmsii Harms. Alexandra County.

35. TERAMNUS Swartz.
labialis Spreng. Northdene, 800 ft.

36. ERYTHRINA L.
   3. tomentosa R.Br. Midlands. Tree veld. “umNqwabe” or “umKwabakwaba.”

36a. GALACTIA P.Br.
tenuiflora W. and A. Clairmont, 20—40 ft.

37. CANAVALIA Adans.
   3. ensiformis DC. Inanda.

38. PHASEOLUS L.
schlechteri Harms. Near Ladysmith.

39. VIGNA Savi.
   1. angustifolia Bth. Coast and Midlands.
   2. burchellii Harv. Zululand.
   3. glabra Savi. Coastbelt vleis.
   4. marginata Bth. Coast and Midlands.
5. retusa Walp. Vlei near Durban.
   triloba var stenophylla. Near Durban.
9. luteola Bth. Weenen County.
40. VOANDZEIA Thouars.
   subterranea Thouars. Cultivated.
41. DOLICHOS L.
   1. altigenus Schltr.
   2. angustifolius E. & Z. Midlands.
   3. biflorus L. Northdene, 700 ft.
   4. gibbosus Thb. Midlands.
   5. lablab L. Coastbelt.
   6. nodiflora Bth. Alexandra County.
   7. sericeus E.M. Midlands.
42. RHYNCHOSIA Lour. (Mostly in grassveld.)
   2. bracteata Bth.
   4. cyanosperma Bth. Lower Illovo, 2,000 ft.
   5. gibba E.M. Grassveld, all over.
   6. grandifolia Steud.
   7. hirsuta E. & Z. Coastbelt.
   8. memnonia DC. Zululand.
   9. minima DC. Near Durban.
10. orthodanum Bth. Common all over.
12. pilosa Steud. Umzinyati, 300 ft.
14. reptabunda N.E.B. Charlestown, 5,000 ft.
17. woodii Schinz. Inanda.
43. ERIOSEMA DC. (Grassveld.)
   1. cajanoides Hook.f. Inanda.
   2. cordatum E.M. Inanda. "uQontzi."
   3. distinctum N.E.B. Nottingham Road.
   5. longipes N.E.Br. Pinetown.
   6. parviflorum E.M. Inanda.
   7. salignum E.M. Very common in grassveld all over.
      "uQontzi."
44. FLEMINGIA Roxb.
    congesta Roxb. Midlands.
45. **DALBERGIA** L. “umZungulu” or “Manyenyane.”
   1. **armata** E.M. Coastbelt bush. “umKovati,” “umHluluwe.”
   2. **obovata** E.M. In bush all over. “uPandhazi.” “Pandhlas.”

46. **BAPHIA** Afzel.

47. **CALPURNIA** E.M. (In and around bush). “isiPane.”
   1. **intrusa** E.M. In open ground all over. “Hlovane.”
   2. **lasiogyne.** Coast and Midlands. “umKhiphampetha.”
   3. **villosa** Harv. Uncertain.
   4. **sylvatica** E.M. Coast and Midlands.
   5. **woodii** Schinz. Drakensberg and Midlands.

48. **SOPHORA** Bth.
   nitens Bth.

49. **HOFFMANSEGGIA** Cav.
   1. **burchellii** Bth and Hook. Zululand.
   2. **sandersoni** Wood. Tabamhlope, 6,000 ft.

50. **CASSIA** L.
   2. **delagoensis** Harv. Doubtful.
   3. **mimosoides** L. Very common, all over.
   4. **obovata** Collad. Near Durban.
   5. **occidentalis** L. Common, coast and Midlands.

51. **BAUHINIA** L.
   1. **natalensis** Oliv. Coastbelt.
   2. **tomentosa** L. Bluff, near Durban.

52. **SCHOTIA** Jacq. (Trees.) “Hluze.”
   2. **latifolia** Jacq. Thorn veld.

53. **ENTADA** Adans. (Climbers).
   1. **natalensis** Bth. Coastbelt and Midlands. Scrub and forests.
   2. **scandens** Bth. Zululand.

   burchellii Bth. Grassveld. Coast to Drakensberg.

55. **DICHROSTACHYS** DC. “umSasana” or “umGagane.”
   **nutans** Bth. Often dominant in coast Thorn veld.

56. **ACACIA** Willd (mostly trees of Thorn veld). “umuNga.”
   1. **caffra** Willd var **tomentosa** Glover. Coast and Midlands.
   2. **ataxacantha** DC. Hlabane.
   5. **eriadenia** Bth. Coast and Midlands.
   7. **clavigera** E.M. Coast and Midlands.
   8. **hebeclada** DC. Near Colenso.
10. **benthami** Rochbr. *(arabica* Willd var *kraussiana.)* Dominant over much of Thorn veld, coast and Midlands.
11. **gerrardi** Bth. Coast and Midlands.
12. **birtella** E.M. Coast and Midlands.
14. **natalitia** E.M. Coast and Midlands.
15. **karroo** Hayne *(horrida* Willd). Dominant over much of Midland Thorn veld.

**FAMILY 70—GERANIACEAE.**

Herbs, undershrubs or shrubs. Leaves stipulate. Flowers hermaphrodite. Sepals 5 (rarely 4). Petals 2—8, usually 5. Stamens usually 2 or 3 times petals, some often sterile. Outer whorl opposite petals. Ovary lobed 5 celled, with 2 ovules in each cell (rarely 8 celled with 1 ovule in each cell). Fruit beaked. Carpels separating at maturity. 3 genera 35 species.

1. Flowers irregular with a hollow spur adnate to pedicel.

**3 PELARGONIUM.**

Flowers regular or nearly so. Glands at bases of stamens. 2.

2. Stamens 10.

Stamens 15 (5 bundles of 3).

**1 MONSONIA.**

1. **attenuata** Harv. Upper districts and Drakensberg.
3. **lanceolata** (Schinz) R. Knuth. Weenen County and Mt. West, 5-6,000 ft.
4. **praemorsa** E.M. Coastbelt.
5. **grandifolia** R. Knuth. Richmond.
6. **biflora** DC. Coast to Drakensberg.
7. **brevirostrata** R. Knuth. Midlands and Drakensberg.

**2 GERANIUM L.**

1. **alticola** Schltr. Van Reenen, 6-7,000 ft.
2. **canescens** L'Herit. Hills above Howick, 4,000 ft., and Drakensberg.
5. **lanuginosum** R. Knuth. Midlands and Drakensberg.
6. magniflorum R. Knuth. Drakensberg, 7-9,000 ft.
7. ornithopodium E. & Z. Common. Coast to Drakensberg.
8. pulchrum N.E.Br. Drakensberg vleis.
9. robustum Kze. Charlestown, 5-6,000 ft.
10. thodei R. Knuth. Drakensberg, 8-10,000 ft.
11. schlechteri R. Knuth. Lidgetton, 3,600 ft.

3. PELARGONIUM L. Herit.
2. fabellifolium Harv. Midlands and Drakensberg.
5. bowkeri Harv. Drakensberg (woodii N.E. Br.)
6. grossularioides Ait. Mont Aux Sources, 7,000 ft.
7. capituliforme R. Knuth. Drakensberg. Tiger Cave Valley, 5,500-7,000 ft.
9. alchemilloides Ait var dentatum Harv. Midlands and Drakensberg.
10. inquinans Ait. Polela, 4-5,000 ft.
11. sidaefolium (Thb.) R. Knuth. Midlands.
12. capitatum. Coast and Midlands.
15. vittifolia Ait. Inanda.
16. zonale Ait. Doubtful.
17. ranunculophyllum Baker. Doubtful.

FAMILY 71—OXALIDACEAE.

Herbs, shrubs or trees. Leaves alternate or radical. Flowers regular, hermaphrodite. Sepals 5. Petals 5 free or united at base. Stamens 10 or 5, filaments united at base. Glands at base of stamens. Ovary superior, 5-celled. Styles 5 free. Ovules axile. Fruit a capsule or berry. Endosperm fleshy. 1 genus 8 species.

Stamens 10, 5 alternate shorter. Herbs. OXALIS.

OXALIS L. “isiTate.”
1. bifurca Lodd. Umzimkulu River.
2. convexula Jacq. Upper Tugela. Drakensberg, 4,000 ft.
3. corniculata L. Common all over. Ruderal.
4. pulchella Jacq. Maritzburg.

**FAMILY 72—LINACEAE.**

Herbs, shrubs or trees. Leaves undivided. Flowers regular, hermaphrodite. Petals usually 4–5, free, with imbricate or contorted aestivation. Stamens as many or twice as many as petals. Filaments united at base. Ovary 2–10 celled. Ovules 1–2 in each cell, pendulous inverted. Fruit a capsule or drupe. Endosperm fleshy. 1 genus 1 species.

*LINUM* L.

*thunbergii* E. & Z. Coast to Drakensberg.

**FAMILY 73—ERYTHROXYLACEAE.**


1. **ERYTHROXYLON** P. Browne. "umBamatsheni," "umNcaka."

2. **NECTAROPETALUM** Engl.

**FAMILY 74—ZYGOPHYLLACEAE.**


**TRIBULUS.** Tourn. (Common in grassveld.)

*terrestris* L. Midlands and Drakensberg.
FAMILY 75—RUTACEAE.

1. Fruit dehiscent and more or less fleshy. Leaves trifoliolate or pinnate.
2. Leaves pinnate. (Xanthoxyylon.)
   Leaves simple.
3. Tree. Flowers large, paniculate. 1 CALODENDRON.
   Shrub or undershrub. Flowers small axillary.
4. Fruit a berry. Leaves pinnate.
   Fruit a drupe. Leaves trifoliately.
5. Stamens as many as petals, 4—5.
   Stamens twice as many as petals 8.
1. CALODENDRON Thb.
   capense Thb. “Cape Chestnut.” “umBaba.” Important timber tree in all forest, except where frosts occur.
2. BAROSMA Willd.
   lanceolata Sond. Around margins of bush. Coast and Midlands.
   lanceolata A. Juss. “White Ironwood.” Common tree in all types of forest and tree veld.
4. TECLEA Del. (Under Toddalia Juss.)
   natalensis (Sond.) Engl. Coastbelt and Midland tree veld.
6. FAGARA L. (Xanthoxyylon L.)

FAMILY 76—BURSERACEAE.

Trees, rarely shrubs. Leaves usually pinnate. Bark resinous, thick. Flowers regular, mostly polygamous. Calyx 3—5—fid or parted. Petals 3—5 free, deciduous. Stamens twice as many as petals inserted outside the disc. Anthers versatile. Ovary 2—5 celled. Ovules 2 in each cell, pendulous or lateral. Style simple
77. MELIACEAE—78. MALPIGHIACEAE.

or 0. Stigma lobed. Fruit drupelike. Seeds exendospermic. 1 genus 2 species.

COMMIPHORA Jacq. "Corkwood." "umMumbu."
1. caryaefolia Oliv. Common in tree veld.
2. harveyi Engl. Tree veld, towards coast.

FAMILY 77—MELIACEAE.

Trees or shrubs. Leaves extipulate, usually pinnate. Flowers regular. Petals 3—6, usually free. Stamens as many or twice as many as petals. Filaments usually united. Ovary superior, 2 or more celled. Ovules inverted. Style 1 or 0. Stigma entire or lobed. 5 genera 10 species.

1 PTAEROXYLON.

Filaments more or less united. Seeds not winged. 2.
2. Leaves simple.
3. Leaves bipinnate.
4. Fruit a capsule, with a leathery rind.
5. TRICHILIA.

1. PTAEROXYLON E. & Z. "Sneezewood." "umTate."
   utile E. & Z. Subdominant in some of the south Drakensberg forest. Common or frequent in other forests of coast and Midlands. Occasional in Thorn veld.
2. TURRAEA L. "umHuluma." "umHulana." "uLulama."
   "Mandhlozane."
   2. obtusifolia Hochst. Sand dune bush. "umHlathalana."
3. MELIA L.
   azedarach L. Introduced. Cultivated.
4. EKEBERGIA Sparm. "umNyamathi."
   1. capensis Sparm. Common in bush all over. Frequent in Thorn veld or Tree veld.
   2. meyeri Presl. Common in bush all over.
5. TRICHILIA L.
   2. natalensis Sond.
   3. alata N.E.Br. Coast and Midlands.
   4. umbellata C.DC. Umtwalumi, 2,500 ft.

FAMILY 78—MALPIGHIACEAE.

Shrubs, undershrubs or climbers. Leaves simple, usually stipulate. Flowers hermaphrodite or unisexual. Sepals 3—5.
Petals 5 free. Stamens usually 10. Ovary superior 2—3 celled, with 1 pendulous, inverted ovule in each cell. Styles 1—3. Fruit usually separating into mericarps. Seed endospermic. 2 genera 3 species.


1 ACRIDOCARPUS.


2 SPHEDAMNOCARPUS.

1. ACRIDOCARPUS Guill and Perr. "uMabope."

2. SPHEDAMNOCARPUS Planch.

FAMILY 79—POLYGALACEAE.

Herbs, shrubs, or rarely trees. Leaves simple, entire. Flowers irregular. Sepals 5, the inner 2 usually petal-like. Petals 3—5, more or less adnate to staminal tube. Stamens 5—8. Filaments more or less united. Ovary superior, 1—3 celled. Ovule 1 in each cell, pendulous, inverted. 2 genera 33 species.

Sepals very unequal, the 2 lateral wing-like.

1 POLYGALA.

Sepals subequal.

1. POLYGALA L. (Mostly marginal to scrub and forest.)
   1. affinis DC.
   2. capillaris E.M. Coastbelt and Zululand. Moist places.
   3. chloroptera Chod.
   4. confusa MacOwan. Coast and Midlands.
   5. durbanensis Chod. Near Durban.
   6. galpini Hk. Drakensberg and Upper districts.
   7. gerrardi Chod. Midlands.
   9. lysimachaeefolia Chod.
   11. natalensis var foliosa. Chod. Alexandra County.
   12. neglecta MacOwan. Coastbelt.
   14. oppositifolia L. Around margins of bush, all over. "Tete."
   15. ophiura Chod.
   16. persicariaefolia DC. Weenen County.
   17. producta N.E.Br. Midlands.
   18. praticola Chod. Alexandra County, 2,000 ft.
   19. refracta DC. Tabamhlope, 6,000 ft.
   20. rigens DC.
22. *rhinostigma* Chod.
25. *ukambica* Chod. Weenen County, 3-4,000 ft.
27. *hispida* Burch. Mont Aux Sources, 6,800 ft.

**MURALTIA** Neck.
3. *pilosa* DC. Common in Midlands.
5. *saxicola* Chodat. Cathkin Peak, 8,500—9,000 ft.

**FAMILY 80—EUPHORBIACEAE.**

Herbs, shrubs or trees, often with milky juice. Flowers unisexual. Perianth simple or double or wanting. Stamens definite or indefinite. Ovary superior, usually 3-celled. Ovules 1 or 2 in each cell, pendulous, inverted. Raphe ventral. Micropyle usually covered by an outgrowth of the placenta. Fruit usually capsular or schizocarpic separating into dehiscing mericarps or drupaceous, or of a 2-3 connate nuts. Seeds usually endospermic. 25 genera 107 species.

1. Ovules 1 in each cell of the ovary.
2. Ovules 2 in each cell of the ovary. *(Phyllanthaceae).*
3. Partial inflorescence flower-like; 1 female flower surrounded by male flowers of 1 stamen each, and with an involucre of glandular appendages. *(Euphorbiaceae).*
4. Partial inflorescences, not flower-like, etc. *(Crotoneae).*
5. Involucre continuous, rimlike or with 1—5 notches.
Bushy shrub with terete spineless, succulent branches and large alternate leaves.
1 *SYNADENIUM.*
Involucre with 2—8 (usually 4—5) separate glands.

**2 EUPHORBIA.**
4. Anthers reversed, and filaments inflexed in bud. Racemes or spikes terminal. Leaves with stellate hairs or scales.

**9 CROTON.**
Anthers erect, and filaments straight or twice flexed in bud.
5. Petals present in male and sometimes in female flowers.
6. Petals absent.

**10 JATROPHA.**
Flowers dioecious, rarely monoecious. Stamens 5.

**11 CLUYTIA.**
7. Calyx lobes of male flower imbricate
Calyx lobes of male flowers not overlapping. 8.

Stamens 3. Filaments united into a slender tube. 10.

Stamens 6—10. Filaments free. 24 SPIROSTACHYS.

9. Stamens 6—12, usually 10, 2 seriate peripheral. 19 ADENOCLINE.

10. Styles united to the middle or beyond (mostly climbers). 11.

11. Ovary 1 celled by abortion. 17 MACARANGA.

Ovary 3 celled. (Herbs or undershrubs, usually climbing.) 12.

12. Flowers in dense involucrate heads. 10. Styles united to the middle or beyond (mostly climbers). 11.

13. Stamens 30 or more. 22 CTENOMERIA.

Stamens normally 3. 23 TRAGIA.

14. Filaments repeatedly branched. 18 RICINUS.

Filaments not branched. 15.

15. Herbs with twining stems. Stamens 30—60. 22 CTENOMERIA.


17. Anther cells adnate laterally to a connective throughout their length, short, or dorsifixed. 18.

Anther cells distinct, free or almost free, attached to the filament by their base or apex only. 19.

18. Styles very long. Stamens usually 8. 16 ALCHORNEA.

Styles short, stout. Stamens usually 2—3, rarely numerous. 17 MACARANGA.


Stamens few, 3—8. Styles undivided. 21.

20. Buds perulate. Capsule 2 or 1 coccous, seldom 3 coccous. 12 ERYTHROCOCCA.

Buds naked. Capsule 3 coccous. 13 MICROCOCCA.

21. Anther cells stipitate, plainly separate, oblong or linear, flexuous or twisted. Stamens usually 8. 15 ACALYPHA.

Anther halves contiguous, at length spreading, globose. 14 LEIDESIA.

Stamens 3—7. 3 BRIDELIA.

22. Sepals of male flowers valvate in bud. 23.

Sepals of male flowers imbricate in bud. 4 ANDRACHNE.


Petals absent in male flowers. 8 ANTIDESMA.

24. Flowers in slender, catkin-like spikes. 25.

Flowers pedicellate in axillary fascicles or solitary.
25. Disc central, inside stamens. Style or sessile stigmas, much broadened, sometimes wholly united. **7 DRYPETES.**

Disc outside stamens or disc glands between the filaments. Styles or style branches rather thin or broadened at apex only.

26. Male flowers without a rudimentary ovary.

**5 PHYLLANTHUS.**

Male flowers with a well-developed rudimentary ovary.

**6 FLUGGEA.**

**1. SYNADENIUM** Boiss. "umBalele" or "umDlebe."

*arborescens* Boiss. Shrub in coastbelt scrub.

**2. EUPHORBIA** L. "umSulusulu." "isiHlontlo." "umHlontlo."


3. *inaequilatera* var *perennis.* Near Durban.


11. *epicyparissias* E.M. Abundant around margins of bush.


"umPapa."
27. triangularis Desf. Tree. Amanzimtoti.
28. evansii Pax. Tree Marianhill.

3. BRIDELIA Willd. "umHlalamakwaba."

4. ANDRACHNE L.
   ovalis Mull. Shrub. (Phyllanthus ovalis Sond.) Coast and Midlands.

5. PHYLLANTHUS L. "Dhlula mazembe."
   1. discoideus Mull. Coastbelt tree.
   2. nummulariaefolius Poir. Undershrub. Coast and Midlands.
   4. glaucophyllus Sond. Coast to Drakensberg. Undershrub.
   5. madaraspatensis L. Coast to Drakensberg. Woody undershrub.

6. FLUGGEA Willd.
   microcarpa Blume. Shrub. or small tree. Coastbelt.

7. DRYPETES Vahl. Trees or shrubs.
   1. natalensis Hutchin. Coastbelt.
   2. arguta Hutchin. Coast and Midlands. "umHlakela."
   3. gerrardi Hutchin. Tugela.

8. ANTIDESMA L. "umTshongi." "umHlahla (ta)."

9. CROTON L.
   1. rivularis E.M. Mooi River.
   2. sylvaticus Hochst. Large tree. Common in coast forest.
      "uMinya." "uMbiliu." "umHlalajuba." "umZilanyoni."
   3. menyharti Pax. Tugela Valley.
      "mahlabakufane."
   5. zambesicus Mull. Tugela Valley.

10. JATROPHA L. (Herbs or undershrubs.)
   1. curcas L. Cultivated by natives.
   2. natalensis Mull. Midlands.
   3. latifolia Pax. Near Durban.
      woodii var vestita. Ladysmith.
11. **CLUYTIA** L. Herbs and shrubs.
   1. **katherinae** Pax. Drakensberg.
   2. **virgata** Pax and K. Hoffm. Midlands.
   3. **laxa** Eckl. Midlands.
      "uNgwalene."
   6. **pulchella** var **franksiæ** Prain. Amanzimtoti and Zululand.
   7. **mollis** Pax. Alfred County.
   10. **dregaeana** Scheele. Marianhill.
       **hirsuta** var **robusta**. Prain. Midlands and Drakensberg.
   14. **cordata** Bernh. Coast and Midlands.
   15. **heterophylla** Thb. Around bush.

12. **ERYTHROCOCCA** Bth. (Herbs.)
   1. **natalensis** Prain. Coastbelt.
   2. **berberidea** Prain. Coastbelt.

13. **MICROCOCCA** Bth.
   **capensis** Prain. Coastbelt and Zululand.

14. **LEIDESIA** Mull.
   **capensis** Mull. Ismont, 2,000 ft.

15. **ACALYPHA** L. (Herbs and shrubs.)
   1. **sonderiana** Mull. Near Durban.
   3. **indica** L. Tugela.
   4. **segetalis** Mull. Near Colenso.
   5. **petiolaris** Hochst. Common.
   7. **peduncularis** E.M. Coast and Midlands. "Sununundu."
   8. **grandulifolia** Buching. Coast and Midlands.
   11. **angustata** Sond. Durban and Maritzburg.
   12. **punctata** Meisn. Common all over.
       **punctata** var **longifolia**. Midlands.
   13. **wilmsii** Pax. Shrubs or trees

16. **ALCHORNEA** Sw. Shrubs or trees.
   **glabrata** Prain. Zululand.
17. **MACARANGA** Thouars.

18. **RICINUS** L. "Castor Oil." "umHlakuva."
   **communis** L. Ruderal. Common all over.

   1. **bupleuroides** Prain. Common all over.
   2. **mercurialis** Turcz. Midlands and Drakensberg.
   3. **serrata** Turcz.

20. **GELONIUM** Roxb.
   **africanum** Mull. Shrub or tree. Near Durban.

21. **DALECHAMPIA** L. (Usually climbers.)
   1. **volubilis** E.M. Near Durban.
   2. **capensis** Spreng. Common coast and Midlands.

22. **CTENOMERIA** Harv. (Usually climbing.)
   1. **cordata** Harv. Coastbelt.
   2. **schlechteri** Prain. Umkomanzi River, 3,000 ft.

23. **TRAGIA** L. (Usually climbing.)
   1. **natalensis** Sond. Inanda.
   2. **collina** Prain. Colenso, 4-5,000 ft.
   3. **meyeriana** Mull. Coast to Drakensberg.

24. **SPIROSTACHYS** Sond. "umTomboti."
   **africanus** Sond. Common coastbelt tree.

25. **SAPIUM** P.Br.
   2. **reticulatum** Pax. Shrub or tree. Coastbelt.

**FAMILY 81—CALLITRICHACEAE.**


**CALLITRICHE** L.
   1. **bolusii** Schön and Pax. Drakensberg.
   2. **compressa** N.E.Br. Umbilo, in a stagnant pool

**FAMILY 82—BUXACEAE.**

Shrubs or trees. Leaves opposite, simple, entire. Flowers regular, monoecious. Perianth 4 in male, 4—6 in female flowers.

**NOTOBUXUS** Oliv. “Luxwezo.”


**FAMILY 83—ANACARDIACEAE.**


1. Leaves simple. Ovary 1 celled, 1 ovuled. 2. Leaves compound.
2. Ovule basal.
   4. Ovule lateral, or apical. Coastbelt tree.
3. Ovary 1 celled 1 ovuled. Sometimes with 1—2 rudimentary cells.
5. Styles terminal. Calyx not enlarged in fruit. Fruit not winged.
   7. Styles lateral, thread-shaped.
7. Sepals free. Stone of fruit with 3—4 lids.

1. **SCLEROCARYA.**

Sepals more or less united.

2. **HARPEPHYLLUM.**

1. **SCLEROCARYA** Hochst (Tree).
   *caffra* Sond. Coast and Midlands. Common.
2. **HARPEPHYLLUM** Bernh. (Tree.) “Kafir Plum,” “um-Gwenye.”
3. **LANNEA** Rich. *(Odina* Roxb.)*
4. **HEERIA** Meisn.
   *paniculosa* (E.M.) O. Ktz. Weenen.
   *longifolia* Engl. Dominant tree in coastbelt forest.

   1. *crenata* Thb. Groenberg, 2,000 ft.
   5. *excisa* Thb. Tugela Valley. 3,000 ft. alt.
         “isi Banda.”
   17. *pentheri* A. Zahlbr.
   20. *refracta* E. & Z.
   25. *truncata* Schinz. 7,000 ft. alt.

7. **LOXOSTYLLIS** Spr.

   *alata* Spr. Coastbelt tree. Doubtful.

8. **SMODINGIUM** E.M.

   *argutum* Sond. Locally abundant in Thorn veld.

**FAMILY 84—AQUIFOLIACEAE.**

ILEX. L. “uBupupu.” “umDuma.” “iPupuma.”
mitis (L.) Rad. Tree. Common near streams. Coast to Drakensberg.

FAMILY 85—CELASTRACEAE.

Shrubs or trees. Leaves simple, stipulate. Flowers regular. Sepals 4—5. Petals 4—5 free, imbricate in bud. Disc present. Stamens 4—5, alternating with petals. Filaments free. Ovary superior or sunk in the disc, 2—5 celled, rarely (Pleurostylia) 1 celled. Ovules 1—8 in each cell, inverted. Style 1 or 0. Seed usually endospermic. 5 genera 29 species.

2. Fruit a drupe or nut. Seeds without an aril.

3. Ovules 3—6 in each cell.
4. Ovules 2 in each cell.


2 PTEROCELASTRUS.

Capsules not winged. Ovary not ribbed. Disc faintly lobed.

1 GYMNOSPORIA.

Ovary 2—4 celled. Ovules 1—2 in each cell.

4 PLEUROSTYLIA.


5 ELAEODENDRON.

1. GYMNOSPORIA Wight & Arn. (Under Celastrus L.)
   1. albata (N.E.B.) Sim. Thorn veld. “umDanghan.”
   2. acuminata (L.f.) Szysz. Rather rare. Thorn veld.
      “umNama.”
   3. angularis (Sond) Sim. Coastbelt. Inanda. Locally common.
      “isiBubu.” “inGqwangane.”
   5. concinna (N.E.Br.) Inanda. Lidgetton.
   6. cordata E.M. Near Durban. “umNama.” “umVama.”
   7. laurina (Thb.) Sand dunes.
   9. peduncularis (Sond) Sim. Midland forests. “InQai” or “umQai.”
   10. polyacantha (Sond.) All over.
   11. procumbens (L.f.) Near Durban.
   12. rehmanni Szysz. Camperdown, 2,500 ft.
   13. ruber (Harv.) Entumeni, Zululand. 2,000 ft.
   14. rudatisii Loes. Fairfield, Dumisa, 2-3,000 ft.
   15. undata (Thb.) Szysz. Inanda.
   16. woodii Szysz. Inanda.

2. PTEROCELASTRUS Meisn. “Zahlulumanye.”
   1. echinatus N.E.Br. Zululand, 2,000 ft.
2. rostratus Walp. Zululand, 6,000 ft.

3. PUTTERLICKIA Endl.
verrucosa E.M. Frequent in Thorn veld.


capensis Oliv. Tree. Midlands and Drakensberg.

5. ELAEODENDRON Jacq. (including Cassine L. in part and Mystroxyylon E. & Z.) "um or Nqayi," or "Ngai."
1. capensis E. & Z. Inanda.
2. aethiopicum Oliv. Frequent in Thorn veld.
3. croceum DC. Frequent in Thorn veld. "umBomvane."
5. velutinum Harv. Coast. Sand dune bush.
8. albanensis (Sond). Coast and Midland bush. Climber. "umMabope."

FAMILY 86—HIPPOCRATEACEAE.

Shrubs or trees. Leaves simple. Flowers regular. Calyx 5-partite. Petals 5, free, inserted below a disc. Stamens 3—5, inserted on or within the disc. Ovary 3 celled. Ovules inverted, 2—10 in each cell. Style 1 or 0. Fruit a capsule, drupe or separating into mericarps. Seeds exendospermic. 1 genus 2 species.

SALACIA L. (Stamens 3.) Scandent rambling shrublets.
2. gerrardi Harv. Coastbelt.

FAMILY 87—SALVADORACEAE.

Shrubs or trees. Leaves opposite, simple, entire with minute stipules. Flowers regular. Calyx 2—4 cleft. Petals 4, rarely 5, free or united at base. Stamens as many as and alternate with petals. Sometimes also 4—5 staminodes. Ovary superior 1—2 celled. Ovules 1—2 in each cell, erect, inverted. Style 1. Short. Fruit a berry or drupe. Seeds endospermic. 1 genus 1 species.

AZIMA Lam. (Petals 4, ovary 2 celled, dioecious.)
tetraacantha Lam. Shrub with 4 spines in axils of leaves. Thorn veld. "Gegeye."

FAMILY 88—ICACINACEAE.

Trees or shrubs. Leaves exstipulate. Flowers hermaphrodite or unisexual, regular. Perianth simple or of calyx and corolla.
Stamens 4—5. Ovary superior. 1 celled. Ovules 2, pendulous, inverted, with a dorsal raphe. Style 1 or 0. Fruit a drupe. Seed 1. 3 genera 4 species.


1 **PYRENA**

ACANTHA Hook. “umSekelo.”

2. Petals free. Sepals usually united high up.

2 **APODYTES**

Petals united. Sepals united only at base.

1. **PYRENA**

ACANTHA Hook. “umSekelo.”

scandens Planch. Coastbelt bush. Climber.

2. **APODYTES** E.M. “umDakane.”

dimidiata E.M. Tree. Common all over.

3. **CASSINOPSIS** Sond. (Shrubs.)


### FAMILY 89—SAPINDACEAE.

Trees, shrubs or rarely herbs. Leaves alternate, usually compound. Flowers polygamous or unisexual. Calyx 4—5 parted. Petals 4—5 or 0. Stamens 4—24, usually 8, inserted within the disc. Ovary superior, 2—8 usually 3 celled, sometimes only 1 fertile. Ovules 1—2 in each ovary cell. Curved. Style 1. Seeds exospermic. 6 genera 10 species.

1. Ovules 2 or 3 in each cell of ovary.

2. Ovules 1 in each cell of ovary.

3. Petals present.

2. Petals absent. Fruit a winged capsule.

3. Herbaceous climber. Fruit a winged capsule.

1 **CARDIOSPERMUM.**

Trees or shrubs.

4. Leaves pinnate.

Leaves simple or trifoliolate.

5. Sepals 4.

Calyx 5 lobed.

### 1 **CARDIOSPERMUM L.**

halicacabum L. Coastbelt herb. “iKambileziduli.”

2. **ALLOPHYLUS L.** (Schmidelia L., Allophyllus Gleditsch.)

1. decipens Radkl. Coast and Midlands. “umCandotambo.”


“maTandazana.”
5. rehmannianus (Szysz). Near Durban.
   oblongifolius Sond. Common in coastbelt bush.
5. PAPPEA E. & Z. "iLitye.
   capensis E. & Z. Lower Mooi River.
6. DODONAEA L.
   viscosa Jacq. Coastbelt.

FAMILY 90—MELIANTHACEAE.

2. Sepals very unequal. Petals 4, rarely 5, shorter than sepals.

1. GREYIA Hk. & Harv. "inDalu.
2. MELIANTHUS L.
   2. villosus Bolus. Midlands and Drakensberg. Wet places.
3. BERSAMA Fres.
   1. abyssinica Fres.
   2. tysoniana Oliv. Uncertain.

FAMILY 91—BALSAMINACEAE.

IMPATIENS L.
1. capensis Meerb. Common all over in damp bush.
2. flanaganae Hemsley. Umthalumi, 1,500 ft.
FAMILY 92—RHAMNACEAE.


1. Ovary free, not sunk. Leaves penninerved.
2. Ovary inferior or half inferior, or sunk in the disc.

1. ZIZYPHUS Juss. "imBufa." "umPafa." "umLahlankosi."


3. SCUTIA Brogn. "inGqapunana." "umSondeza."

4. HELINUS E.M. "uBupupu." "umGologoti."

5. PHYLICA L. "umDidi." "umHlulamite."

6. NOLTEA Reich. africana Reich. Coastbelt. Umsinyati Falls, 1,000 ft.
FAMILY 93—VITACEAE.

Shrubs or undershrubs, usually climbing. Leaves alternate, stipulate. Flowers regular, in cymose inflorescences. Calyx small, cup-shaped. Petals 3—7, free or united. Stamens as many as and opposite the petals. Ovary 2—8 celled, on or sunk in the disc. Ovules 1—2 in each cell, inverted with ventral raphe. Style 1, sometimes indistinct. Stigma entire or 2—4 lobed. Fruit a berry. Seeds endospermic. 2 genera 19 species.

1. **RHOCISSUS** Planch. (Climbers.) “isiNwazana.”
   2. *cirrhiflora* (L.f.) Gilg. and Brandt (*cuneifolia* Planch). Coast to Drakensberg. “isiNwasi.”
   3. *digitata* Gilg. and Brandt. Coast to Drakensberg.

2. **CISSUS** L.
   2. *connivens* Lam. Coast to Drakensberg.
   5. *gracilis* G. & P. Zululand.
   10. *scarlatina* Gilg & Brandt.
   12. *quinata* Ait.

FAMILY 94—TILIACEAE.

1. Flower 4 parted. Outer stamens sterile.

**3 SPARMANNIA.**

Flower usually 5 parted. Outer stamens not sterile. 2.
2. Receptacle not stalklike. Anthers linear or oblong.

Prostrate herbs.

Receptacle forming a stalklike column which bears stamens and ovary. Anthers roundish. Trees, shrubs or erect herbs.

3. Tall erect herbs. Fruit spiny.

**2 TRIUMFETTA.**

Trees and shrubs. Fruit fleshy.

**1 GREWIA.**

1. **GREWIA** L. “iKlolo.”
   2. caffra Meisn. Common in coast bush and Thorn veld.
   3. flava DC. Thorn veld.
   4. hispida Harv. Stony places. Midlands and Drakensberg bush.

2. **TRIUMFETTA** L. Weeds.
   1. annua L. Weeds.
   2. effusa E.M. Common all over.
   3. rhomboidea Jacq. Common all over. “iNothwane.”
   4. sonderi Ficalho and Hiern. Zululand.

3. **SPARMANNIA** L.f.
   palmata E.M. Coast and Midlands. Common.

4. **CORCHORUS** L.
   2. serafefolius Burch. Greytown.
   3. trilocularis L. Midlands and Zululand.

**FAMILY 95—MALVACEAE.**


1. Style branches 10, twice as many as carpels. **6 PAVONIA.**
   Style branches as many as carpels or 1.
2. Staminal tube loaded with anthers at the top. Carpels separable, disposed in a ring round central axis.

(Primrose)
Staminal tube with anthers on outer face. Carpels united in a capsular fruit. (Hibisceae.)

3. Carpels with 1 ovule each.
4. Carpels with 2 or more ovules.

4. Ovule pendulous. Epicalyx absent. 3 SIDA.
Ovule ascending. Epicalyx of 3 bracteoles present. 5.
5. Style branches pointed bearing stigma on inner face.

1 MALVA.
Style branches capitate, with stigma at the thickened apex.

2 MALVASTRUM.
7. Style split into fairly long branches. Ovary 5 celled.

5 SPHAERALCEA.
4 ABUTILON.

7 HIBISCUS.
Style simple or split into very short erect branches.

8 CALYX not dotted. Ovary 5 celled.

9 THESPESIA.
Calyx sprinkled with black dots. Ovary 3—4 celled.

8 CIENFUEGOSIA.

1. MALVA L.
parviflora L. Drakensberg and Midlands. Ruderal.

2. MALVASTRUM A. Gray.
capense Gray & Harv. Izingolweni, 2,000 ft.

3. SIDA L.
1. acuta Burm. Near Durban.
2. cordifolia L. Coastbelt.
3. capensis E. & Z. Coast and Midlands.
4. rhombifolia L. Common all over, often ruderal.
5. spinosa L. Oakford, 1,000 ft.
6. triloba Cav. Midlands.
7. longipes E.M. Common.

4. ABUTILON Gaertn.
1. indicum Sweet. Coastbelt.
2. sonneratianum Sweet. Coast to Drakensberg.

5. SPHAERALCEA St. Hil.
pannosa Bolus. Mt. Erskine, 6-7,000 ft.

6. PAVONIA L.
1. columella Cav. Inanda, 1,800 ft.
2. dregei Gurcke. Near Durban.
3. kraussiana Hochst. Coastbelt.
4. odorata Willd. Coastbelt.
5. urens Cav. Tugela Valley.

7. HIBISCUS L.
1. aethiopicus L. Coast to Drakensberg.
3. calycinus Willd. Coast and Midlands.
4. cannabinus L. Coast and Midlands. Common.
16. *saxatilis* Wood & Evans. Drakensberg, 5-6,000 ft.
17. *surrattensis* L. Coast and Midlands. "inCathucathu."
   - *trionum var. hispidus*. Drakensberg. Moist places.
   - *trionum var. hastaefolius*. Inanda, 2,000 ft.
20. *verrucosus* G. & P. Ifafa, 1,800 ft.
8. **CIELFUEGOSIA** Cav. (Fugosia Juss.)
   - *gerrardi* (Harv.) Camperdown.

**FAMILY 96—STERCULIACEAE.**

Trees, shrubs or herbs. Leaves alternate, stipulate. Sepals 4—7, more or less united. Petals 5 or 0. Stamens 5 or more. Filaments more or less united. Anthers 2 celled. Ovary superior 4—10, rarely 1 celled, or apocarpous. Ovules inverted, usually 2 or more to each carpel. Seeds usually endospermic. 5 genera. 36 species.

1. Flowers unisexual, without a corolla.
2. Flowers hermaphrodite or polygamous, with a corolla.
3. Stamens 10 or more, or if 5, then alternating with long staminodes.
4. Fertile stamens 5.

**1 COLA.**

1. *COLA* Schott. "iliTenenende."

**2 HERMANNIA.**

3. Filaments free. Ovary 5 celled.
   - Filaments united below. Ovary 1 celled.

**3 WALTHERIA.**

4. Fertile stamens 5.
   - Fertile stamens 10 or more.

**4 MELHANIA.**

5. **DOMBEYA.**

**5 DOMBEYA.**
2. sandersoni Harv. Inchanga.
6. gerrardi Harv. Midlands and Drakensberg.
7. transvaalensis Schinz. Drakensberg, 7,000 ft.
8. woodii Schinz. Midlands, 2-4,000 ft.
15. schlechteriana Schinz, MS. Zuurberg, 4-500 ft.
16. malvifolia N.E,Br. Bushmans River, Drakensberg, 6,500 feet.
17. modesta (Ehrenb) Planch.
18. brachypetala Harv. Zululand.
19. gracilis (Harv.) Zululand.
20. oligosperma K. Schum. Amahwaqa, 6-7,000 ft.
21. velutina DC. Melvern, 600 ft.
22. veronicifolia (E. & Z.) K. Schum. Glencoe, 4-5,000 ft.

3. WALThERIA L.
   americana L. var indica (L.) K. Schum. Umzinyati, 800 ft.
4. MELHANIA Forsk.
   1. didyma E. & Z. Midlands.
      didyma var linearifolia. Szyszyl.
   2. prostrata P.DC.
   3. ovata Spreng var oblongata K. Schum.
5. DOMBEYA Cav. “iBunda.”
   1. cymosa Harv. Upper Umlaas and Mooi River, 3,000 ft.
      “umXaba.”
   2.burgessiae Gerr. Klip River and Zululand.
      burgessiae var crenulata Szyszyl. Newcastle and Biggarsberg.
   3. dregeana Sond. Coast and Midlands.
   4. gracilis K. Schum. 250 ft. alt.

**FAMILY 97—OCHNACEAE.**


**OCHNA** L. "umHlezane." "umTelelo." "umTensema." "Hlazane."
1. **arborea** Burch. Tree. Coast and Midlands. In bush.
2. **atropurpurea** DC. Shrub. Coast and Midlands. Outside bush.

**FAMILY 98—GUTTIFERAE.**


2. **GARCINIA** L. "isiBinda."
   - **lalandii** var **macropetalum** Drakensberg.
   - **lalandii** var **lanceolatum**. Drakensberg.
4. **natalensis**. Wood & Evans. Mooi River, 4,000 ft.

2. **GARCINIA** L. "isiBinda."
2. **natalensis** Schltr. Fairfield, Alexandra County, 2-3,000 ft.

**FAMILY 99—VIOLACEAE.**


1. Flowers distinctly irregular. Lower petal saccate or gibbous.
   - Herbs or undershrubs. (**lonidium.**) 1 **HYBANTHUS.** Flowers nearly regular. Petals subequal, not saccate.
   - Shrubs or trees.
2. **RINOREA.**
1. HYBANTHUS Jacq. (Ionidium Vent.)
   1. caffer (Sond) Engl. Coastbelt.
      caffer var angustifolius Engl.
   2. capensis (R. & Sch.) Engl. Inanda, 1,800 ft.
   3. natalensis (Harv.) Inanda. Doubtful.

   1. ardisiaefolia (Welw.) Sim. Coast and Midlands.

FAMILY 100—FLACOURTIACEAE.

Trees or shrubs. Leaves undivided, usually stipulate. Flowers regular, hermaphrodite or unisexual. Petals free or 0. Stamens as many as sepals or more. Ovary superior or half inferior 1 celled (rarely 2 or more celled) with usually 2—8 parietal placentae. Ovules 3 or more, rarely 2, inverted. Seeds usually endospermic. 10 genera 21 species.

1. Perianth leaves arranged spirally, the inner with small scale-like appendages at the base, the outer much smaller.

1 RAWSONIA.
   Perianth leaves whorled. Sepals and petals present or sepals only.
   2. Petals present.
      Petals absent.
   3. Petals more than sepals, unappendaged. Stamens numerous.
      Petals as many as sepals.

2 XYLOTHECA.

3 ONCOBA.

4 KIGGELARIA.

5 SCOLOPIA.

6 TRIMERIA.

7 GERRARDINA.

8 HOMALIUM.

9 CASEARIA.

10 DORYALIS.

1. RAWSONIA Harv. and Sond. "Nanga"
2. **XYLOTHECA** Hochst.
   2. **tettensis** (Klotsch) Gilg. Coastbelt.

3. **ONCOBA** Forsk.
   **spinosa** Forsk. Coastbelt. Common.

4. **KIGGELARIA** L. “umFeyenkomo.” “Munwe.”
   1. **africana** L. Coast to Drakensberg.
   2. **dregeana** Turcz. Coast to Drakensberg. Common.
      “isiKali.”

5. **SCOLOPIA** Schreb. “umQokolo.” “umHlambahlala.”
   1. **eckloni** (Arn) Harv. All over. In bush.
   2. **gerrardi** Harv. Coastbelt chiefly. Probably a variety of **eckloni**.
   3. **mundii** Warb. All over, but chiefly upper districts.

6. **TRIMERIA** Harv. “iDlebelendhlovu.”
   1. **grandifolia** Hochst. Common in bush all over.
   2. **trinervis** Harv. Shrub. Coast and Midlands.

7. **GERRARDINA** Oliv. “Zeti” or “Leti.”
   **foliosa** Oliv. Inanda. Murchison Flats and Zululand.

8. **HOMALIUM** Jacq.
   1. **rufescens** Bth. Coastbelt.
   2. **dentata** (Harv.)

9. **CASEARIA** Jacq. “umJuluwa.”
   **junodi** Schinz. ’Nkandhla forest, 4-5,000 ft.

10. **DORYALIS** Arn and Mey. (incl. **Aberia** Hochst.)
    2. **tristis** (Sond) Warb. Thorn veld.
    3. **caffra** (Hk. and Harv.) Sim. Midlands and Drakensberg.
    4. **celastroides** Sond. Coast and Midlands.
    5. **lucida** Sim. Midlands, Zwartkop.

**FAMILY 101—PASSIFLORACEAE.**


1. Flowers hermaphrodite. Corona triple.

   1. **TRYPHOSTEMMA**.
      Flowers usually unisexual. Corona simple, double or (in the Natal species) wanting.

   2. **ADENIA**.
1. **TRYPHOSTEMMA** Harv.
   sandersoni Harv. Grassveld. All over.
2. **ADENIA** Forsk. (including **Modecca** Lam. and **Ophiocaulon** Hk.f.)
   1. *digitata* (Harv.) Vryheid, Zululand.

**FAMILY 102—ACHARIACEAE.**


1. **CERATIOSICYOS** Nees.
   eckloni Nees. Midlands, in bush.
2. **GUTHRIEA** Bolus.
   capensis Bolus. Drakensberg, 10,000 feet. Under rocks in damp places.

**FAMILY 103—BEGONIACEAE.**


**BEGONIA** L. (Mostly in bush.)
1. *caffra* Meisn.
2. *dregei* Ott and Dietr. Inanda, in bush.
4. *natalensis* Hk. Midlands. Common in bush

**FAMILY 104—CACTACEAE.**

Succulent plants, usually with jointed stems. Leaves usually scale-like, often deciduous. Flowers hermaphrodite. Perianth of 8 or more segments. Stamens numerous. Ovary inferior, 1 celled, with several parietal placentas. Ovules inverted. Style
1. Stigmas several. Fruit a berry. Seed endospermic. 2 genera 4 species.

1. Plants without barbed spines. Slender straggler.

1 RHIPIPSALIS.

Plants with barbed spines at least on fruit. 2 OPUNTIA.

1. RHIIPPSALIS Gaertn. "uGebelewene."
   cassytha Gaertn. Hanging from rocks and trees in Midlands.

2. OPUNTIA Haw. "Prickly Pear."
   1. monacantha Haw. Introduced.
   2. tuna Mill. Introduced.
   3. ficus-indica Mill. Introduced.

FAMILY 105—OLINIACEAE.


OLINIA Thb. "inKunzi." "isiShoba." "inQutu."
   1. drakensbergensis Hofmeyr MSS. Upper districts and Drakensberg.

FAMILY 106—THYMELAEACEAE.

Herbs, undershrubs, shrubs or trees. Leaves entire, exstipulate. Flowers 4—5 merous. Sepals petaloid. Petals (or petal-like scales) present or absent. Stamens as many or twice as many as sepals. Ovary superior 1—5 celled. Ovules 1 in each cell. Receptacle usually forming a deep hollow "calyx tube." Style simple. Stigma entire. Fruit a drupe or nut. 8 genera 32 species.

1. Ovary 2 celled. Petals 0. Fruit a drupe. Trees or shrubs.

8 PEDEDEIA.
   2.
   2. Petals absent.
   3.
   3. Petals present.
   5.
   3. Hypogynous disc present, cupular, membranous. Shrub with leaves, usually 2½ by 1½ inches.

1 DAIS.

1. Hypogynous disc not present. Heathlike shrubs.
   4.

2 ARTHROSOLEN.

Stamens exserted. Tube urceolate.

3.
   3. Stamens as many as calyx lobes.
   4.
   4. Stamens twice as many as calyx lobes.

6.
6. Flowers in ebracteate terminal fascicles.

7 **ENGLERODAPHNE.**

Flowers in ebracteate heads or spikes rarely axillary.

7. Flowers 4 merous.

Flowers 5 merous.

6 **LASIOSIPHON.**

1. **DAIS** L.

cotinifolia L. Common in Midlands.

2. **ARTHROSOLEN** C.A. Meyer. (Mostly grassveld.)

1. calocephalus C.A.M. Coast and Midlands.

2. gymnnostachys C.A.M. Midlands.

3. variabilis C. H. Wright. Midlands and upper districts.

4. phaeotrichus C. H. Wright. Midlands and Drakensberg.

3. **PASERINA** L.

1. filiformis L. Midlands and Drakensberg.

2. ericoides L. Coast to Drakensberg.


rigida var comosa. Meisn. Sea shore.

4. corymbosa Eckl. Mooi River, 4,000 ft.

5. eriophora Gandog. Near Durban.

4. **STRUTHIOLA** L.


2. parviflora Bartl. Mont Aux Sources.

5. **GNIDIA** L. (Mostly in grassveld.)

1. microcephala Meisn. Midlands.

2. fastigiata Rendle. Tabamhlope.

3. polystachya Berg. Mont Aux Sources.


5. stellatifolia Gandog. Pinetown.

6. nodiflora Meisn. Coast and Midlands.

7. ovalifolia Meisn. Coast and Midlands. “uHlosa.”

6. **LASIOSIPHON** Fresen. Mostly in grassveld.

1. splendens Endl. Coast and Midlands.

2. macropetalus Meisn. Coast and Midlands.

3. dregeanus Endl. Durban.

4. linifolius Decne. Abundant in Midland grassveld.

5. polyanthus Gilg. Coast to Drakensberg.


“inDolo.”


“isiDikili.”

8. triplinervis Decne. Midlands and Mts.

9. caffer Meisn. Midlands and Drakensberg.


7. **ENGLERODAPHNE** Gilg.

leiosiphon Gilg. Maritzburg.
8. **PEDDIEA** Harv. "isiFufufu."
   1. **africana** Harv. Common in all bush.
   2. sp. (unnamed?) Coastbelt.

**FAMILY 107—LYTHRACEAE.**

Trees, shrubs or herbs. Leaves entire, usually stipulate. Flowers hermaphrodite. Sepals 3—8 valvate. Petals 3—8 or 0. Stamens usually inserted below petals. Anthers dorsifixed. Ovary superior, completely or incompletely 2—6 celled. Ovules numerous, inverted. Raphe ventral. Style 1 or 0. Stigmas 1 or 2. Fruit dry. Seed exendospermic. 2 genera 9 species.

Stamens adnate to base of petals. Ovules in 1 row. Small tree.

2. **RHYNCOCALYX.**

Stamens inserted below petals or petals absent. Ovules in 2 or more rows. Herbs, undershrubs, or low shrubs.

1. **NESAEA** Comm.
   1. **floribunda** Sond. Ladysmith.
   2. **kuntzei** Koehne. Doubtful.

2. **RHYNCOCALYX** Oliv. (Shrub.)

**lawsonioides** Oliv. Alfred County. Murchison.

**FAMILY 108—LECYTHIDACEAE.**


**BARRINGTONIA** Forst. (Fruit 1 seeded.) "iBoqo."

**racemosa** Roxb. Often dominant in wet sandy soil, where water is not brackish, near sea shore.

**FAMILY 109—RHIZOPHORACEAE.**

Trees or shrubs. Leaves undivided. Flowers regular hermaphrodite or polygamous. Sepals valvate. Petals free. Stamens twice as many as petals or more, perigynous or epigynous. Ovary superior or inferior, completely or incompletely 2—6 celled.
Ovules 1—2 in each cell, pendulous inverted. Seeds often germinating on the attached fruit. 4 genera 6 species.

   Ovary superior or nearly so. Ovules with appendages. Leaves opposite. Growing away from sea.

2. Ovary inferior. Receptacle deeply concave. Calyx crowning the fruit.
   Ovary half inferior. Receptacle slightly concave. Calyx at base of fruit.


4. **Dactylopetalum** Bth. (Cassipourea Aubl.)
   "umNuka.”
   **Verticillatum** (N.E.Br.) Coast and Midland bush.

**FAMILY 110—COMBRETACEAE.**


1. Petals 0. Leaves alternate, rarely almost opposite.

**3 Terminalia.**

Petals 4—5. Leaves (at least the upper) opposite.

2. Calyx tube elongate, filiform. Climbing shrub.

**2 Quisqualis.**

Calyx tube not elongate filiform. Trees. **1 Combretum.**

1. **Combretum** L. "umBondi." “umDubu.”
   1. **Apiculatum** Sond. Upper Tugela.
   3. **Erythrophyllum** Sond. Coast and Midlands.

2. **QUISQUALIS** L.  
   *parviflora* Gerr. Umhloti, 100 ft.

3. **TERMINALIA** L.  

**FAMILY 111—MYRTACEAE.**


1. Fruit dry. Ovary superior. Stamens 5—8. **1. HETEROPYXIS**  
   Fruit a berry. Ovary inferior or half inferior. Stamens numerous. **2. EUGENIA.**

1. **HETEROPYXIS** Harv.  
   *natalensis* Harv. Coast bush.

2. **EUGENIA** L.  
   4. *gueinzii* Sond.
   *natalitia* var *medleyana.* Engl. and V. Brehm. Coastbelt.

**FAMILY 112—MELASTOMACEAE.**

Herbs, shrubs or trees. Leaves opposite, simple, usually with 3—11 longitudinal nerves, extipulate. Flowers regular or nearly so. Petals free. Stamens as many or twice as many as petals. Anthers usually with enlarged connective, opening at the top. Ovary usually inferior or half inferior. Ovules numerous. Style
1. Seeds exendospermic. 2 genera 5 species.
2. Ovary 1 celled. Fruit a berry. Free central placenta.

1 MEMECYLON.
Ovary more than 1 celled. Fruit capsular.

2 DISSOTIS.

1. MEMECYLON L.
   1. australis Gilg. and Schltr. Fairfield, Alexandra County.
      2-3,000 ft.
   2. capense E. & Z. Near Umzimkulu.

2. DISSOTIS Bth. "umFeyankala." "umFeyesele."
   1. princeps Triana. Wet places. Coast and Midlands.
      Common.
   2. incana Triana. Wet places, coast and Midlands. Common.
   3. phaeotricha Triana. Wet places. Coast and Midlands.

FAMILY 113—OENOTHERACEAE.

Shrubs or herbs. Flowers 2—6 merous. Sepals valvate in the bud. Petals free, rarely (Ludwigia) absent. Stamens as many or twice as many as sepals. Ovary inferior or half inferior, 2—6 celled. Ovules inverted. Style 1. Seeds exendospermic. 5 genera 11 species.

1. Ovary half inferior; 2 celled with 1 pendulous ovule in each cell. Fruit woody, indehiscent. Floating herbs.

1 TRAPA.
Ovary inferior, 2 celled with 1 ascending ovule in each cell or 3—6 celled with numerous ovules.

2. Flowers with bracteoles, regular. Calyx persistent.
3. Flowers without bracteoles, 4 merous. Calyx deciduous.

   Stamens 8—12.

   4. EPILOBIUM.
   Calyx tube long. Stamens subequal. Seeds without a tuft of hairs.

5 OENOTHERA.

1. TRAPA L.
   bispinosa Roxb. Floating in streams.

2. LUDWIGIA L.
   1. jussieuoides Desr. Zululand.
   2. palustris Ell. Midland vleis.

3. JUSSIEUA L.
   1. repens L. Coast and Midlands. In vleis and pools.
   2. suffrutingo L. Coastbelt and Zululand.
   suffrutingo var angustifolia Lam.

4. EPILOBIUM L.
   1. capense Buch. Moist places. Coast and Midlands.
2. *flavescens* E.M. Midlands and Drakensberg.
4. *tetragonum* L. Noodsberg and Drakensberg.
5. *schinzii* Lev. 

5. **OENOTHERA** Spach.
   1. *biennis* L. Imported weed.

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**FAMILY 114—HALORRHAGACEAE.**

Herbs or undershrubs. Leaves exstipulate. Flowers small, regular, 2—4 merous. Petals free or 0. Stamens 1—8. Ovary inferior 1 celled with 1 or 4 ovules, or 4 celled with 1 ovule in each cell. Ovules pendulous, inverted. Styles or stigmas 2—4. Fruit a nut, drupe or schizocarp. Seeds endospermic. 3 genera 3 species.

1. Ovary 1 celled with 1 ovule. Leaves large radical.

   **1 GUNNERA.**

   Ovary 1 celled with 4 ovules or 4 celled.

2. Ovary 1 celled, sometimes incompletely 4 celled.

   Leaves undivided. Terrestrial.

   **2 LAUREMBERGIA.**

   Ovary 4 celled. Leaves divided. Aquatic.

3. **MYRIOPHYLLUM** L.

   **3 MYRIOPHYLLUM.**

1. **GUNNERA** L. "uGobo."

   *perpensa* L. In vleis. Common. Sometimes dominant. Coast to Drakensberg.

2. **LAUREMBERGIA** Berg. *(Serpicula* L.)*


3. **MYRIOPHYLLUM** L.

   *spicatum* L. Mooi River, 4,000 ft.

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**FAMILY 115—ARALIACEAE.**

Trees or shrubs. Leaves usually stipulate. Flowers 4—16, usually 5 merous. Petals free or united into a cap, valvate in bud. Stamens as many as petals or more. Anthers versatile. Ovary inferior or half inferior, crowned by a disc, 2 or more celled. Ovule 1 in each cell, pendulous, inverted. Raphe ventral. Fruit indehiscent. Seeds endospermic. 2 genera 7 species.

Fruit roundish. Pedicels not jointed with flowers.

1. **CUSSONIA.**

   Fruit laterally compressed, oblong. Pedicels jointed with flowers.

   **1 CUSSONIA.**

   **1 CUSSONIA** Thb. "umSenge."

   2. *kraussii* Hochst.

2. **PANAX** L. (Polyscias Forst.)
   *gerrardi* Harv. Midlands. “umXenga.” “umQwenge.”

**FAMILY 116—UMBELLIFERAE.**

Mostly herbs, rarely trees (*Heteromorpha*). Leaves alternate, usually with a sheathing stalk. Flowers in umbels or *(Alepidea)* in heads, rarely in spikes. Flowers usually regular, hermaphrodite or the outer irregular. Calyx small or 0. Petals 5, free. Stamens 5, alternating with petals. Ovary inferior, 2 celled. Ovules 1 in each cell, pendulous, inverted. Raphe ventral. Styles 2, free, arising from a 2-lobed disc. Fruit dry separating into 2 mericarps, attached to a carpophore. Pericarp ribbed and traversed by oil channels between main ribs, which enclose vascular bundles. Seeds with horny endosperm. 14 genera 35 species.

1. Flowers in simple or irregularly compound umbels, usually few to the umbel or in heads.
   Flowers in regularly compound umbels. Oil channels between the ridges of the fruit.
2. Calyx lobes obsolete. Fruit laterally compressed. Leaves orbicular or cordate.
   Calyx lobes not obsolete. Fruits slightly or not compressed.
3. Flowers in capitula, sessile.
   Flowers all, or the male ones pedicellated. Umbels arranged in cymes.
4. Seeds very concave or marked with a furrow on the inner face (seen in cross-section of the ripe fruit).
   Seeds flat, slightly concave or convex on the inner face.
5. Leaves undivided, entire.
   Petals yellow or greenish.

1. **HYDROCOTYLE.**
2. **ALEPIDEA.**
3. **SANICULA.**
4. **CONIUM.**
5. **BUPLEURUM.**
6. **PEUCEDANUM.**
7. **SESELI.**

Leaves, at least the lower ones, dissected.
6. Mericarps much compressed from front to back. Marginal ribs much more prominent than dorsal and more or less winged.
7. Fruit not compressed laterally. Commissure (plane of junction of mericarps), broad.
9. Ribs of fruit keel or ridge-like.
10. Ribs of fruit wing-like.

11 ANNESORRHIZA.
Marginal wings thick. All wings equal, membranous or spongy. Mericarps equal. Leaves 2—3 times pinnately dissected.

(Selimum) 14 CNIDIUM.

10. Leaves simple, entire, usually sessile. 5 BUPLEURUM.
Leaves, at least some of them, toothed to dissected or compound.

11. Tree with mericarps, one 2-winged, the other 3-winged.

6 HETEROMORPHA.
Mericarps with ribs filiform or keeled, but not winged. 12.

12. Oil channels 1 under each rib, none in the furrows. Calyx toothed. Petals white with a long inflexed point.

7 LICHTENSTEINIA.
Oil channels in the furrows. Sometimes also under ribs. 13.

13. Oil channels solitary in each furrow, large. Ribs very prominent. Petals greenish-white. 8 APIUM.
Oil channels numerous, narrow. Ribs filiform. 14.

14. Calyx toothed. Involucre and involucels large, persistent.

9 SIUM.
Calyx not toothed. Involucre and involucels usually wanting.

10 PIMPINELLA.

1. HYDROCOTYLE Tourn.
   1. americana L. var monticola Hk.f. Inanda.
   2. asiatica L. Common all over.
      asiatica var repanda. Durban.
   3. umbellata L. Near Durban.
   4. centella Cham. and Sch. Izingolweni.
   5. sp. Umzinyati, Ungoya.

2. ALEPIDEA La Roche.
   1. amatymbica E. & Z. Common all over.
   2. baurii O. Kuntze. Midlands and Mountains.
   3. ciliaris La Roche. Nottingham Road and Weenen.
   4. concinna Dummer. Inanda.
   5. jacobsziae Dummer. Weenen, 4-5,000 ft.
   6. longifolia E.M. Drakensberg and Midlands.
      longifolia var angusta Dummer. Drakensberg and Midlands.
   7. natalensis Wood & Evans. Mt. Gilboa, 2-4,000 ft.
   9. thodei Dummer. Mont Aux Sources.
   11. wyliei Dummer. Zululand.

3. SANICULA L.
   europaea L. Common in bush. Midlands.
4. CONIUM L.
   maculatum L. Midlands.
5. BUPLEURUM Tourn.
   mundii Ch. & Sch. Midlands and Drakensberg. Common.
6. HETEROMORPHA Cham. & Schlech. “umBangandhlala.”
   arborescens Ch. & Sch. Coast, Midlands, and Drakensberg.
   Common.
7. LICHTENSTEINIA Cham. & Schlecht. “inTlashane.”
   pyrethrifolia Cham & Sch. Common all over.
8. APIUM L.
   graveolens L. Shores of Natal Bay.
9. SIUM L.
   thunbergii DC. In wet places. Common all over.
10. PIMPINELLA L.
   1. caffra D. Dietr. Midlands.
   2. reenensis Reching. Van Reenen.
11. ANNESORRHIZA Cham. & Schlecht.
    tritematum (E. & Z.) Lower Tugela.
12. PEUCEDANUM L.
   2. capense Sond. Common.
   4. araliaceum Bth. and Hk. Elsemesre. 2,000 ft.
   5. wilmsianum Wolff. Alexandra County. 1,800 ft.
   6. reenensis Reching.. Van Reenen, 5-6,000 ft.
13. SESELI L.
14. CNIDIUM Cuss. (Selinum L.)
    suffruticosum Ch. & Sch. Isipingo.

FAMILY 117—CORNACEAE.

Trees or shrubs. Leaves simple, exstipulate. Flowers regular. 
Petals 4—5, free or cohering at base. Stamens 4—5. Ovary inferior, 
2—4 celled with 1 pendulous ovule in each cell. Raphe dorsal. 
Fruit a drupe. Seeds endospermic. 2 genera 2 species. 
Ovary 4 celled. Flowers hermaphrodite. 2 CURTISIA. 
Ovary 2—3 celled. Flowers unisexual. 1 CORNUS.

1. CORNUS L.
   capitata Wall. Nottingham Road. 4,800 ft.
   faginea Ait. In Midland and Mountain bush.
METACHLAMYDEAE. (SYMPETALAE).

FAMILY 118—ERICACEAE.

Undershubs, shrubs or trees. Leaves simple, narrow. Flowers regular or nearly so, hermaphrodite. Calyx 4—5 cleft, persistent. Petals united below. Stamens 3—15, usually twice as many as petals, free from corolla or nearly so. Anthers usually opening at top. Ovary superior, 1—5 celled. Ovules axile or solitary, inverted or almost so. Style 1. Seeds endospermic. 2 genera 24 species.

Bracts 0. Calyx lobes unequal, lowest larger. 1 PHILLIPPIA. Bracts 3, rarely 1 or 0. Calyx lobes equal. 2 ERICA.

1. PHILLIPPIA Klotzsch.
   evansii N.E.Br. Ulundi, 5-6,000 ft.

2. ERICA L.
   1. algida Bolus. Drakensberg, 8-10,000 ft., near streams.
   2. alopecurus Harv. Midlands and Drakensberg.
   3. aspalathifolia Bolus. Inanda, 1,800 ft.
   4. caffra L. Umbilo Falls, 1,000 ft.
   5. caffrorum Bolus. Drakensberg, on cliffs.
   6. cerinthoides L. Midlands and Drakensberg.
   10. frigida Bolus. Makwakqa 6-7,000 ft.
   11. hispidula L.
   12. lasiocarpa Guth and Bolus. Van Reenen, 7,000 ft.
   13. natalitia Bolus. Midlands and Drakensberg.
   15. sitiens KI. Drakensberg.
   17. solandra Andr. Drakensberg.
   18. trichoclada Guth. and Bolus. Liddesdale, 4-5,000 ft.
   Polela.
   20. wyliei Bolus. Drakensberg, 9-10,000 ft.
   21. flanagani Bol. Drakensberg, 8,000 ft.
   22. reensis A. Zahlbr. Van Reenen.
   23. ebracteata Bolus. Mont Aux Sources.

FAMILY 119—MYRSINACEAE.

Trees, shrubs, or undershrubs. Leaves alternate, undivided, gland dotted, exstipulate (very rarely opposite). Flowers regular 4—5, rarely 6—7—merous. Petals free or united below. Stamens as many as, and opposite petals, on the corolla. Ovary superior or (Maesa), half inferior, 1 celled with free central placenta. Ovules
usually numerous. Style 1 or 0. Fruit a berry, drupe or nut. Seeds 1 or many endospermic. 4 genera 7 species.
1. Ovary inferior or half inferior. Fruit many seeded.

1 MAESA.
, Ovary superior. Fruit 1 seeded.
2. Petals free or nearly so.
   Petals united.
3. Filaments wanting. Style wanting.
   Filaments present more or less united. Style present.

2 EMBELIA.

3 RAPANEA.

4 MYRSINE.
1. MAESA. Forsk. "uPopopo." "umPongaponga." "isiDende."
   "uMaguqu." "inHlavubele."
   1. alnifolia Harv. Coast to Drakensberg.
   2. rufescens A.DC. Doubtfully distinct from next. Coast
      and Midlands.
   3. lanceolata Forsk. Coast and Midlands.
2. EMBELIA Burm. "iBinini."
   ruminata Mez. (kraussii Harv.) Coast and Midlands.
   Rambling shrub.
3. RAPANEA Aubl. (Under Myrsine L.) "isiGwane wehlati."
   "isiQulabahloti."
   melanophloeos (L.) Mez. Tree. Common. Coast to
   Drakensberg.
4. MYRSINE L. "umHlaba-i-boge."
   africana L. Important pioneer shrub in forest areas. Mid-
   lands and Drakensberg.

FAMILY 120—PRIMULACEAE.

Herbs or undershrubs. Leaves simple, exstipulate. Flowers
3—7, usually 5 merous, hermaphrodite. Petals usually united be-
low. Fertile stamens as many as, and opposite petals. Ovary
usually superior, 1 celled, with free central placentas. Ovules
several to many. Style 1. Stigma 1. Fruit a capsule. Endosperm
fleshy. 3 genera 6 species.
1. Ovary inferior to half inferior. Stamens alternating with
   staminodes. Capsule 5 valved.
   3 SAMOLUS.
   Ovary superior. No staminodes.
   2 ANAGALLIS.
   Stamens glabrous. Capsule 5—10 valved.
1 LYSIMACHIA. L.
   woodii Schlr. In a damp valley, near Van Reenen.
2. ANAGALLIS L.
   1. arvensis L. Annual weed.
   arvensis var coerulea. Common.
2. **huttoni** Harv. Maritzburg.  
**huttoni** var. **nummularia** Harv. Zululand.

3. **pumila** var **natalensis** Knuth. Coastbelt to Inanda.

### 3. **SAMOLUS** L.

1. **valerandi** L. Coastbelt to Inanda.

2. **porosus** Thb. Common along seashore.

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**FAMILY 121—PLUMBAGINACEAE.**

Herbs, undershrubs or shrubs (climbing). Leaves simple, alternate or radical. Flowers 5 merous, hermaphrodite. Petals united. Stamens as many as and opposite petals. Ovary superior 1 celled. Ovule 1 pendulous from an erect basal funicle. Styles or style branches 5. Endosperm mealy. 1 genus 2 species.

**PLUMBAGO** L. “Matshletshshele.”


2. **zeylanica** L. Weenen County. Doubtful.

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**FAMILY 122—SAPOTACEAE.**

Trees or shrubs usually with milky juice. Leaves alternate, entire, exstipulate. Flowers 4—8 merous, axillary, regular, hermaphrodite. Petals united below. Stamens on corolla as many as and opposite petals or more. Ovary superior, 2—many celled. Ovules 1 in each cell. Style 1. Fruit a berry. Endosperm little or none. 3 genera 14 species.

1. **CHRYSOPHYLLUM** L.


3. **MIMUSOPS** L.


   4. **caffra** E.M. Dominant in much of the coast sand dune bush. “umHayihayi” or “umYakayi.”

   5. **marginata** N.E.Br. Coastbelt.
8. dispar N.E.Br. Midland Thorn veld.
11. schinzii Engl.

FAMILY 123—EBENACEAE.

Trees or shrubs. Leaves entire, exstipulate. Flowers axillary or lateral, regular, hermaphrodite or unisexual, 3–8 merous. Petals united below. Stamens as many as and opposite petals or more, inserted at base of corolla. Filaments free or in bundles. Ovary superior 2–16 celled. Ovules 1–2 in each cell, pendulous, inverted. Styles 2–8, free or united at base. Seeds endospermic.

3 genera 20 species.

1. Flowers hermaphrodite, rarely sub-dioecious, 4–8 merous. Calyx increasing in size with age. Stamens usually 10 in one row.

1 ROYENA.

Flowers normally dioecious. Calyx not accrescent.


2 EUCLEA.

Flowers 3 merous. Stamens usually 3–9.

3 MABA.

1. ROYENA L.

2. cordata E.M. Coast to Drakensberg.
4. galpini Hiern. Coastbelt and Zululand.
6. hirsuta L. Midlands and Drakensberg.
8. nitens Harv. Zululand.
10. guerkei O. Kuntze. Charlestown, 6,000 ft.
11. parviflora Hiern. Zululand.
12. glandulosa Hiern. Tugela Valley.

2. EUCLEA Murr. "umGwali." "iDungamusi."

2. lanceolata E.M. Coast and Midlands. "umTshapisana."
3. ovata Burch.
4. multiflora Hiern. Coastbelt.
5. natalensis A.DC. Coast to Drakensberg. "inKaza."

   *natalensis* Harv. Coastbelt bush.

**FAMILY 124—OLEACEAE.**


1. Tree. Corolla tube short, 4 lobed. Fruit a drupe. 4 **OLEA**. Shrubs or climbers. Corolla tube with 5 to many lobes or teeth.


3. Stamens included. Fruit a twin berry. 1 **JASMINUM**. Stamens exserted. Fruit a woody capsule.

2 **SCHREBERA**.

1. **JASMINUM** L.
   4. *streptopus* E.M. Coast and Midlands.
   7. *wyliei* N.E.Br. 'Nkandhla, 4-5,000 ft.

2 **SCHREBERA** Roxb.

3 **MENODORA** Humb & Bonpl.
   *africana* Hk. Tugela River, Bushman’s River, and Zululand.

4 **OLEA** L. (Trees). "umQuma." "umHlebe."
   2. *verrucosa* Link. Coast to Drakensberg. "umSityane."
   "umHlwati." "umNqumo."
   3. *capensis* L. Ngoya, Zululand, and coastbelt sand dunes.
**FAMILY 125—LOGANIACEAE.**

Trees or shrubs. Leaves opposite or whorled entire (rarely toothed or lobed) stipulate. (Stipules often reduced to an interpetiolar line or ridge). Calyx·lobes 4—5. Petals usually 4—5 (rarely 6—16), united below. Stamens usually 4—5, alternating with petals, epipetalous. Ovary superior, usually 2 celled, rarely 4 celled, with 2 or more inverted ovules in each cell. Style simple or 4 cleft. Seeds endospermic. 5 genera 15 species.

1. Fruit baccate, indehiscent. Glandular hairs absent.

### 5 STRYCHNOS.

Fruit a septicidal, 2 valved capsule. Glandular hairs present.


   Flowers in terminal panicles. Tips of glandular hairs several celled.

   **2 NUXIA.**

   Anther halves separate. Style short or, if long, then flowers in racemes. Tips of glandular hairs 2 celled.

3. Flowers racemose. Leaves sessile, 1 nerved.

### 1 GOMPHOSTIGMA.

Flowers cymose. Leaves petioled, penninerved.


   **3 CHILIANTHUS.**

   Anthers included. Calyx shortly lobed.

### 4 BUDDLEIA.


2. **NUXIA** Lam.


   2. **dentata** R.Br. Coastbelt river valleys, 3-500 feet.

   3. **congesta** R.Br, var **emarginata** Prain. Coast and Midlands. "umKobese."

   **congesta** var **tomentosa** Cummins. Midlands.

3. **CHILIANTHUS** Burch. "uTshetshan." "iSumimbuzi."

   1. **arboreus** A.DC. Coastbelt and river valleys. "umGeba."

   2. **corrugatus** A.DC. Riet Vlei.


4. **BUDDLEIA** L. "iLotjane."

   1. **salvifolia** Lam. Common around bush, all over.

   2. **auriculata** Bth, var **euryifolia** Prain. Tugela River and near Kokstad.


5. **STRYCHNOS** L. Trees. "umKangala." "umBanda." um-

   1. **atherstomei** Harv. Coastbelt scrub. Local.

   2. **henningssii** Gilg. Coast and Midlands. Common. "um-

   **Qaloti." "umNonono."
126. GENTIANACEAE


**FAMILY 126—GENTIANACEAE.**

Herbs or undershrubs, rarely shrubs, nearly always glabrous. Leaves simple. Flowers 3—8, usually 4—6 merous, regular hermaphrodite. Petals united below. Stamens as many as and alternating with petals, sometimes only 1 fertile. Ovary superior, 1—2 celled. Ovules numerous. Style 1. Stigmas 1—2. Fruit a capsule, nut or berry. Seeds minute, endospermic, sometimes winged. 5 genera 34 species.

1. Tufted, usually submerged aquatic with leaves floating.
   Leaves alternate or all radical. Corolla induplicate-valvate.

   **5 LIMNANTHEMUM.**
   Leaves opposite. Corolla lobes contorted.
   2. Ovary 1 celled.
   3. Ovary 2 celled.
   4. Corolla with 1—2 glandular nectaries at base of each segment.
   Tube very short. Pollen grains tubercled.

   **4 SWEERTIA.**
   Corolla without nectaries. Pollen grains smooth or dotted.

   **3 CHIRONIA.**
   4. Disc glands between calyx and corolla. Style without a 2 glandular swelling.

   **2 EXOCHAENIUM.**
   No disc glands. Style usually with a 2 glandular swelling near the base.

   **1 SEBAEA.**
   (Mostly in grassveld and vleis.)
   1. *mirabilis* Gilg. Mid-Illovo, 1-2,000 ft.
   15. *imbricata* A.W.H. Summit of Amajuba, 8,000 ft.
17. repens Schinz. Drakensberg. Damp places on wet rocks.
18. thodeana Gilg. Drakensberg.
19. spathula Steud. Giants’ Castle, 6,000 ft.
21. pentandra E.M. Near Boston. 3-4,000 ft.
22. procumbens A.W.H. Mont Aux Sources, 9,500 ft.
23. woodii Gilg. Midlands.
24. marlothii Gilg. Drakensberg, 9-10,000 ft.

2. EXOCHAENIUM Griseb.
   grande var homostylum. Inanda.

3. CHIRONIA L.
   1. baccifera L. var dilatata E.M. Coast sand dunes.
   2. rosacea Gilg. Coastbelt and Zululand vleis.
   3. palustris Burch. Midland vleis.
   5. purpurascens Bth. Coast and Midlands. Vleis.
      purpurascens var impedita. Ixopo.
   6. peduncularis Lindl. Tongaat.
   7. humilis Gilg var zuluensis Prain. Zululand.

4. SWEERTIA L.
   stellarioides Ficalho. Van Reenen, 7,000 ft. Damp places.

5. LIMNANTHEMUM S.M. Gmel.
   thunbergianum Griseb. Coastbelt and Midlands. In pools
   and streams.

FAMILY 127—APOCYNACEAE.

Trees or shrubs, rarely herbs. Usually milky. Leaves simple,
usually opposite entire penninerved. Stipules if present usually
interpetiolar, forming a transverse ridge, sometimes spiny.
Flowers regular or nearly so, 5, rarely 4-merous. Petals united
below, with contorted aestivation. Stamens 5 or 4 inserted in
corolla tube or throat. Ovary superior, rarely half inferior, 1—2
celled, or 2 or more separate carpels. Ovules 2 or more in each
cell, rarely 1, pendulous, inverted. Style 1, entire or divided at
base, bearing stigmas on the under surface of the thickened
part, and sometimes 2 lobed above it. Seeds usually endospermic,
often winged or with a tuft of hairs at one or both ends. 12
genera 18 species.

1. Anther cells diverging below, the outer halves passing into
   barren tailed appendages. Stamens closely connected
   with stigmatic head. Seeds usually with tufts of hairs.
   Fruit dry, dehiscent. (Echitoideae.)
2. Anther cells not diverging below and tailed, or if tailed then
   fruit fleshy, and seeds not comose. Stamens free or
   loosely connected with stigmatic head.
2. Succulent shrubs with swollen stems and fleshy branches. Leaves alternate.

3. Trees and shrubs with woody stems. Leaves opposite or whorled.

3. Unarmed.

4. Armed with spines at bases of leaves.

11. APOCYNACEAE.

2. Succulent shrubs with swollen stems and fleshy branches. Leaves alternate.

12. PACHYPODIUM.

2. Succulent shrubs with swollen stems and fleshy branches. Leaves alternate.

3. Trees and shrubs with woody stems. Leaves opposite or whorled.

4. Anther cone exserted from corolla tube.

5. Corolla small with 5 ligulate scales in the throat.

8. WRIGHTIA. Anther cone concealed in corolla tube.

9. STROPHANTHUS. Anther cone concealed in corolla tube.

10. ONCINOTIS. Anther cone exserted from corolla tube.

3. Unarmed.

11. ADENIUM. Armed with spines at bases of leaves.

12. PACHYPODIUM. Anther cone exserted from corolla tube.

10. ONCINOTIS. Anther cone concealed in corolla tube.

5. Carpels only partly united. Ovaries wholly free or in their upper part only. Styles usually free at the base.

7. Carpels united throughout their whole length.

6. Carpels united throughout their whole length.

8. Ovules 2 in each carpel. Leaves with axillary glands.

7. Ovules 2 in each carpel. Leaves with axillary glands.

4. RAUWOLFIA. Ovules numerous in each carpel.

8. Small undershrub. Calyx without basal glands.

5. LOCHNERA. Trees. Calyx with glands at the base. Fruit fleshy.

9. Sepals united high up, circumscissile at base, deciduous.

7. VOACANGA.


11. Sepals united high up, circumscissile at base, deciduous.

6. CONOPHARYNGIA.

2. CARISSA. Ovary 1 celled. Stigma glabrous.

3. ACOKANTHERA. Ovary 2 celled. Stigma tips hairy.

1. LANDOLPHIA. Ovary 1 celled. Stigma glabrous.

2. CARISSA. Ovary 2 celled. Stigma tips hairy.

1. LANDOLPHIA. Sepals free, not circumscissile at base.

2. ACOKANTHERA. Sepals united high up, circumscissile at base, deciduous.

1. LANDOLPHIA Beauv.


2. capensis Oliv.? Empangeni and Ngoya, Zululand.

2. CARISSA A.DC.


2. ACOKANTHERA G. Don. “inTlunganyembe.”

1. venenata G. Don. Coastbelt and Midlands.

2. spectabilis Hk.f. Coast scrub. “uBethlungubenyoka.”

4. RAUWOLFIA L. “umJela.”


5. LOCHNERA. Reichb.

6. **CONOPHARYNGIA** G. Don. “umKahlu” or “umHlambama.”
   **ventricosa.** Tree. Common in coastbelt hygrophilous bush.

7. **VOACANGA** Thouars “umKahla” or “umHlambamas.”
   **dregei** E.M. Coastbelt hygrophilous bush. Common; sometimes dominant.

8. **WRIGHTIA** R.Br. (Shrub.)
   **natalensis** Stapf. Locally frequent in coast scrub.

   1. **gerrardi** Stapf. Frequent in coast scrub. Climber

    **inandensis** Wood & Evans. Herbaceous climber. Locally abundant in coastbelt scrub.

11. **ADENIUM.** Roem and Schult. (Succulent shrubs.)
    1. **swazicum** Stapf. Zululand.
    2. **multiflorum** Klotsch. Zululand.

12. **PACHYPODIUM** Lindl.

**FAMILY 128—ASCLEPIADACEAE.**

Erect, prostrate, twining or scrambling herbs or shrubs usually with milky juice. Leaves simple, extipulate, usually opposite. Flowers regular, hermaphrodite, 5 merous. Sepals free or nearly so. Petals united below. Stamens 5 usually adnate to style. Filaments short or wanting. Pollen grains united in masses or in granules of 3—5 grains. Corona formed of appendages of stamens and petals. Ovaries 2 free, superior, rarely half inferior. Ovules numerous, rarely few or 1. Styles 2, united above into a thickened head, bearing on its under surface 5 stigmatic dots, and on its sides between the anthers 5 small, usually horny, pollen carriers. Fruit of 1—2 follicles. Seeds usually with a tuft of hairs and little endosperm. 33 genera 179 species.

   (Periploceae). 2.
   Filaments absent or united. Pollen in 1—2 waxy masses. 5.

2. Corolla with a distinct tube, campanulate or cylindrical.
   3. Corolla lobed nearly to base, rotate. 4.
   3. Corona lobes free, inserted with the stamens above the middle or at the throat of the corolla tube.

**2 RAPHIONACME.**
Corona lobes inserted near the middle of the corolla tube, distinctly above the bases of the stamens.

1 **CRYPTOLEPIS.**
4. Corona lobes filiform, or linear and divided into 2—3 filiform segments. Stipules a line connecting bases of petioles.

**3 TACAZZEA.**
Corona lobes broadly obcordate. Stipules toothed or frill-like.

**4 CHLOROCODON.**

5. Pollen masses 2 in each anther half, 4 on each carrier, very small.

**5 SECAMONE.**

6. Pollen masses contained in the lower part of the anthers, pendulous from the arms of the pollen carriers. (Asclepiadeae.)

7. Pollen masses in the upper part of the anthers, attached to the pollen carriers in an erect, ascending or horizontal position.

7. Corona lobes free or nearly so, except in Cynanchum. Stems erect or procumbent, never twining.

8. Corona lobes usually united high up. Stems twining or rambling.

8. Corona lobes united in a tube.

9. Corona lobes free or nearly so.

9. Corona lobes distinctly concave or laterally compressed, sometimes with a horn-like process within the cavity.

10. Corona lobes flat or rather flat or dorsally compressed or very fleshy but not concave, sometimes with keels or processes on the base.

11. Sepals without basal glands. Corona lobes with large appendages on the inside margins, ascending staminal column as narrow wings.

12. Corona lobes exceeding corolla, strongly keeled all down the back with a rhomboid winglike expansion on the back at the base. Apex incurved.

**10 KREBSIA.**
Corona lobes not as in Krebsia.

13. Flowers large and showy, white with a purple corona. Corona lobes with 2 erect basal lobules, but no keels. Corolla lobes sub-erect.

**12 FANNINIA.**
Not as for Fanninia.

14. Staminal column (stigmatic head) subglobose from being constricted at apex and base.

**8 PERIGLOSSUM.**
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<thead>
<tr>
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<tbody>
<tr>
<td>15.</td>
<td>Style produced much beyond the erect anther appendages.</td>
<td><strong>9 CORDYLOGYNE.</strong></td>
</tr>
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<td></td>
<td>Style truncate or depressed at the apex.</td>
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<tr>
<td>16.</td>
<td>Corona lobes erect, thin (very rarely somewhat thick) usually with 2 keels.</td>
<td><strong>11 SCHIZOGLOSSUM.</strong></td>
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<td></td>
<td>Corona lobes very spreading or spreading at the base with erect or incurved tips, rarely wholly erect and then with reflexed sides and a single keel down the face. Usually with 2 contiguous fleshy keels at the base.</td>
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<tr>
<td>17.</td>
<td>Corona double (in 2 distinct series).</td>
<td><strong>14 PACHYCARPUS.</strong></td>
</tr>
<tr>
<td></td>
<td>Corona simple (no outer corona).</td>
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<tr>
<td>18.</td>
<td>Stem leafless fleshy.</td>
<td><strong>17 SARCOSTEMMA.</strong></td>
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<tr>
<td></td>
<td>Stem not fleshy. Leaves large, cordate.</td>
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<tr>
<td>19.</td>
<td>Corona lobes short, usually tubercle-like.</td>
<td><strong>18 PERGULARIA.</strong></td>
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<tr>
<td></td>
<td>Corona lobes or corona not tubercle-like.</td>
<td><strong>19 TYLOPHORA.</strong></td>
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<tr>
<td>20.</td>
<td>Corona of 5 free lobes, with infolded margins with a horn directed over or towards the anthers.</td>
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<tr>
<td>21.</td>
<td>Anthers with a distinct, membranous appendage at the apex. Corolla usually with contorted aestivation.</td>
<td><strong>15 PENTARRHINUM.</strong></td>
</tr>
<tr>
<td></td>
<td>Anthers without or with a very small appendage or small point at the apex, corolla nearly always with valvate aestivation.</td>
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<td>22.</td>
<td>Corona of 5 scales arising from the corolla below its sinuses. Twining hairy shrubs.</td>
<td><strong>16 CYNANCHUM.</strong></td>
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<tr>
<td></td>
<td>Corona arising from the stamens or in the angle between the staminal column and the corolla.</td>
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<tr>
<td>23.</td>
<td>Corona tubular lobed or toothed at the top with extra teeth and 5 pairs of wing-like keels within the tube. Erect or twining.</td>
<td><strong>24 FOCKEA.</strong></td>
</tr>
<tr>
<td></td>
<td>Corona lobes free or united at the base arising from staminal column.</td>
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<tr>
<td>24.</td>
<td>Corona lobes with a narrow appendage on the inner face.</td>
<td><strong>23 TELOSMA.</strong></td>
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<tr>
<td></td>
<td>Corona lobes without an appendage on the inner face.</td>
<td></td>
</tr>
<tr>
<td>25.</td>
<td>Stem cactus-like, angled. Leaves small or wanting. Dwarf succulents.</td>
<td><strong>22 MARSIDENIA.</strong></td>
</tr>
<tr>
<td></td>
<td>Stem herbaceous, or woody, or, if fleshy, then climbing.</td>
<td></td>
</tr>
<tr>
<td>26.</td>
<td>Corolla with accessory teeth between the lobes.</td>
<td><strong>32 HUERNIA.</strong></td>
</tr>
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</table>
Corolla without accessory teeth between the lobes. 27.

27. Corolla lobes broad. 33 STAPELIA.
Corolla lobes narrowly lanceolate. 31 CARALLUMA.

28. Corolla tubular, 2 to several times as long as its diameter in the middle, often inflated at the base. 29.
Corolla rotate or campanulate. Tube short, or, if long, then wide.

29. Flowers long stalked in fascicles arranged in racemes or panicles. 27 RIocreuxia.
Flowers solitary or in umbels or racemes, or if in fascicles arranged in racemes or panicles, then short stalked.

28 CEROPEGIA.

30. Corona of 5 broad, bifid lobes with a long, linear filiform appendage on their inner face, or the dorsal part of the lobe short and subulate, appearing to arise from the back of the inner part. Stem prostrate. Flowers small. 30 ANISOTOMA.

Corona either simple without filiform appendages or in 2-3 series.

31. Corona simple.
Corona in 2 or 3 series.

32. Twining plants. (see 19).
Erect plants.


21 SPHAEROCODON.

34. Stem long twining. Leaves cordate.

20 EMPLECTANTHUS.
Herbs usually of dwarf habit. Stem erect or prostrate.

29 BRACHYSTELMA.

1. CRYPTOLEPIS R.Br.
2. oblongifolia Schltr. Erect shrub. Margins of coast scrub.

2. RAPHIONACME Harv. "uMathanjane."
2. elata N.E.Br. Coast grassveld.
3. galpini Schltr. Coast grassveld.
4. divaricata Harv. Common in coast and Midland grassveld.

divaricata var glabra N.E.Br. Midlands and Drakensberg.
3. TACCAZZEA Decne. (Climbers in scrub and forest).
   1. kirkii N.E.Br.
   2. natalensis N.E.Br. Umbogintwini.

4. CHLOROCODON Hk.f. "uMondi."
   whytei Hk.f. Climber in coastbelt bush.

5. SECAMONE R.Br. (Climbers). "isiUlulu." "inHlanhla."
   2. alpini Schultes. Coast and Midlands.
   3. frutescens Decne. Coast and Midlands.

6. WOODIA Schltr.
   1. mucronata N.E.Br. var trifurcata. Ntondweni, Zulu-
      land.

7. XYSMALOBIUM R.Br. (Grassveld herbs.)
   3. stockenstromense Scott-Elliott. Weenen and Drakens-
      berg, 7,800 ft.
   4. undulatum R.Br. Midlands.
   5. confusum Scott Elliot. Midlands.
   6. orbiculare D. Dietr. Coastbelt and Zululand.
   7. gerrardi Scott-Elliott. Coast and Midlands.
   8. parviflorum Harv. Midlands and Drakensberg. Com-
      mon.
   9. asperum N.E.Br.
   11. prunelloides Turcz. Jolivet, 3,000 ft.
   12. woodii N.E.Br. Van Reenen.

8. PERIGLOSSUM Decne (Grassveld herbs).
   2. mackenii Marv. Near Durban.

9. CORDYLOGYNE E. Meyer. (Grassveld herbs.)
   globosa E.M. Midlands and upper districts.

10. KREBSIA Harv. (Grassveld herbs.)
    1. corniculata Schltr. Buffalo Valley.

    1. cordifolium E.M. Coast, Midlands and Zululand.
    2. atropurpureum E.M. Drakensberg and Buffalo River
       Valley.
    3. hamatum E.M. Dargle and Insiswa.
    4. virens E.M. Coastbelt.
    7. elingue N.E.Br. Drakensberg.
   *flavum* var *lineare* N.E.Br.  Midlands and Drakensberg.
9. *stenoglossum* Schltr.  Midlands and Drakensberg
   *pachyglossum* var *abbreviatum* N.E.Br.  Midlands.
   *robustum* var *pubiflorum* N.E.Br.  Krantzkop.
   *robustum* var *inandense* N.E.Br.  Inanda.
25. *strictum* Schltr.  Ingagane, 4,000 ft.
32. *buchanani* N.E.Br.
34. *exile* Schltr.

12. *FANNINIA* Harv.
   *caloglossa* Harv.  Herb.  Dargle farm.

13. *ASCLEPIAS* L.  (Grassveld herbs.)
1. *cucullata* Schltr.  Midlands and Drakensberg foothills.
   *gibba* var *media* N.E.Br. Zululand.
   *aurea* var *vittata* N.E.Br. Midlands.
   “Nomantanetu.”
25. *involucrata* Schltr. Alexandra County, 1,800 ft.
26. *reflexa* Schltr. Alexandra County, 2,000 ft.
27. *rivularis* Schltr. Ifafa, 2,500 ft.
28. *humilis* Schltr. Mont Aux Sources, 8,000 ft.

14. **PACHYCARPUS** E.M. (Grassveld herbs.)
1. *scaber* N.E.Br. Coast and Midlands.
2. *appendiculatus* E.M. Coastbelt and Zululand.
8. *decorus* N.E.Br.
   *grandiflorus* var *elatocarinatus* N.E.Br. Midlands.
11. *campanulatus* N.E.Br. Coast to Drakensberg.
   *campanulatus* var *sutherlandi* N.E.Br. Midlands.
14. *macrochilus* N.E.Br. Mont Aux Sources, 7-8,000 ft.

15. **PENTARRHINUM** E.M.
2. coriaceum Schltr. Doubtful.

16. CYNANCHUM L. (All the Natal species are twining).
   1. natalitium Schltr. Coast sand dunes near sea.
   2. obtusifolium L. Sand dunes.
      obtusifolium var pilosum Schltr. Sand dunes, near sea.
   3. capense Thb. Coastbelt. Pinetown, etc.
   5. sarcostemmatoides K. Schum. Thorn veld.

17. SARCOSTEMMA R.Br. (Climbers).

18. PERGULARIA L. (Climbers.)

19. TYLOPHORA R.Br. ( Mostly climbers.)
   1. anomal a N.E.Br. Climber in coast scrub.
   2. flanagani Schltr. Climber in bush. Coast and Midlands.

20. EMPLECTANTHUS N.E.Br. (Climbers).
   1. gerrardi N.E.Br. Zululand.

21. SPHAEROCODON Bth.

22. MARSDENIA R.Br.

23. TELOSMA Coville.
    africana N.E.Br. Climber. Coastbelt bush and Thorn veld.

24. FOCKEA Endl.
    tugelensis N.E.Br. Erect or climbing. Tugela Valley.

25. GYMNEMA R.Br.

26. SISYRANTHUS E.M. (Grassveld herbs.)
   1. saundersiae N.E.Br. Inanda.
   2. anceps Schltr. Midlands and Inanda.
   5. huttonae S. Moore. Midlands.
   6. imberbis Harv. Coastbelt.
   7. compacta N.E.Br. Alexandra County, 1,800 ft.

26a. TENARIS E.M.
    simulans N.E.Br. Umzumbi, 50-100 ft.

27. RICCREUXIA Decne. (Tuberous rooted climbers.)
   1. polyantha Schltr. Midlands.
   2. torulosa Decne. Coastbelt.
      torulosa var tomentosa N.E.Br. Midlands and Drakensberg.
3. woodii N.E.Br. Inanda.
4. picta Schltr. Ingome Range.

28. CEROPEGIA L. (Tuberous-rooted climbers.)
1. scabridiflora N.E.Br. Near Verulam.
3. rudatisii Schltr. Midlands.
4. haygarthii Schltr.
5. sandersoni Decne. Thorn veld.
7. crassifolia Schltr. Springvale.
8. setifera Schltr. var natalensis N.E.Br. Thorn veld.
10. woodii Schltr. Midlands, hanging from rocks.
13. meyeri Decne. Midlands and Drakensberg.
15. linearis E.M. Sand dunes.

29. BRACHYSTELMA R.Br. (Dwarf herbs, erect or prostrate).
1. foetidium Schltr. Zululand.
2. flavidum Schltr. Alexandra County.
3. pulchellum Schltr. Rock fissures, Midlands and coast.
4. natalense N.E.Br. Inanda.
5. sandersoni N.E.Br. Coastbelt.
6. gerrardi Harv. Coastbelt.
7. barberiae Harv. Cedara.
8. franksiae N.E.Br.

30. ANISOTOMA N.E.Br. (Anisotome Fenzl.)
pedunculata N.E.Br. Herb with prostrate stems.
Drakensberg.

31. CARALLUMA R.Br.
lutea N.E.Br. Doubtful.

32. HUERNIA R.Br. (Fleshy cactus-like plants.) “uZililo.”
2. zebrina N.E.Br. Zululand.

33. STAPELIA L. (Fleshy cactus-like plants.) “uZililo.”
1. gigantea N.E.Br. Zululand. 'Nkandhla.
2. nobilis N.E.Br. Drakensberg.

FAMILY 129—CONVOLVULACEAE.
Herbs or shrubs, often twining. Leaves alternate, simple ex-stipulate or (Ipomoea) stipulate. Flowers regular, rarely slightly irregular, usually hermaphrodite. Sepals 5. Corolla 5 lobed or

1. Leafless climbing parasite without chlorophyll. **10 CUSCUTA.**
   Not parasitic.
2. Ovary lobed or divided. Sepals united below. Creeping herbs.
3. Ovary entire. Sepals free.
6. Style deeply forked, or styles 2.
7. Style simple.
9. Style branches bifid. Stigmas capitate. (Breweria.)

6 Ovary 1 celled.
   Ovary 2—4 celled.
7. Stigmas 2 capitate. Pollen grains usually spinous.

1 **IPOMAEA.**

Stigmas not capitate.

3 **ASTROCHLAENA.**

9. Stigmas filiform. Corolla funnel-shaped without well-defined midpetaline areas.

5 **CONVOLVULUS.**

Stigmas ovate oblong. Corolla with well-defined mid-petaline areas.

4 **JACQUEMONTIA.**

1. **IPOMAEA L.** (Mostly Twiners.) “iJalambu”
   1. albivenia Sweet. Tugela Valley and Mooi River.
5. cardiosepala Hochst. Inanda.
6. crassipes Hk. Coastbelt.
   crassipes var longepedunculata Hallier. Charlestown.
   crassipes var thunbergioides Hallier. Estcourt.
   crassipes var volubilis Hall. Pinetown.
7. digitata L. Coast districts.
11. greenstockii Rendle.
   *obscura* var *longipes* C. H. Wright. Inanda.
23. **tetraptera** Baker. Coast and Midlands.

2. **HEWITTEA** Wight & Arn.
   *bicolor* W. & A. Twining. Coastbelt.
3. **ASTROCHLAENA** Hallier.
4. **JACQUEMONTIA** Choisy.
   *capitata* L. Don. Annual herbs, twining. Coastbelt.
5. **CONVOLVULUS** L. (Twining or trailing.)
   1. **arvensis** L. Ruderal. In cultivated land.
   2. **bullerianus** Rendle. Midlands.
   3. **calycinus** E. M. Inanda.
   5. **farinosus** L. Coastbelt.
   8. **sagittatus** Thb. Upper Tugela.
   *sagittatus* var *graminifolia* Hallier. Camperdown.
6. **EVOLVULUS** L.
   *alsinoides* L. Trailer. Tugela and near Verulam.
   *alsinoides* var *linifolius* Baker. Tugela.
7. **SEDDERA** Hochst. (Breweria R.Br.)
8. **FALKIA** L.
   *oblonga* Bernh. Coastbelt.
9. **DICHONDRA** Forst.
10. **CUSCUTA** L. Parasitic. “uMankunkunku.”
   1. **appendiculata** Engelm.

**FAMILY 130—BORRAGINACEAE.**

Herbs, shrubs, or trees. Leaves, at least the upper, alternate, exstipulate. Flowers, 4—7 merous, usually 5 merous, hermaphrodite. Petals united below, often with scales at the throat of the tube. Stamens as many as petals, epipetalous. Ovary superior, sessile, lobed, usually 4 celled. Style terminal or gynobasic, 2—4 cleft. Ovule 1 in each cell. Fruit a drupe or schizocarp of 2—4 nutlets. Endosperm scanty or wanting. 7 genera 12 species.

1. Shrubs or trees. Fruit drupaceous. Style terminal.
2. Stem herbaceous or woody at base. Fruit dry, of 2—4 nutlets.
3. Style twice cleft.
   - Style 2 lobed, not twice cleft.
6. Nutlets spiny, united with style, imperforate at base.
7. Nutlets smooth or granular, not united with style or style base.
8. Nutlets depressed, irregularly covered with bristles.

**3 CYNOGLOSSUM.**

Nutlets not depressed, margined with bristles.

**4 ECHINOSPERMUM.**

   - Corolla closed with scales. Bracts 0 or few at the base of the inflorescence.

**5 MYOSOTIS.**

1. **CORDIA** L. "Lovulovu. "umNofunofu."

**3 CYNOGLOSSUM** L.

2. *micranthum* Desf. Grassveld, coast to Drakensberg.

**4 ECHINOSPERMUM** Swartz.

1. *capense* DC.
2. *lappula* Lehm.

**5 MYOSOTIS** L.


6. **LITHOSPERMUM** L.
   2. *cinereum* DC. Midlands.
   3. *officinale* L. Midlands.

7. **TYSONIA** Bolus.
   *africana* Bolus. Foot of Drakensberg, 5,000 ft.

**FAMILY 131—VERBENACEAE.**

Herbs, shrubs or trees. Leaves usually opposite or whorled, simple or compound, exstipulate. Flowers usually irregular, hermaphrodite. Sepals united below, 4—8. Petals united 4—8. Stamens 4. Ovary superior, sessile, entire or slightly lobed, completely or incompletely 2—4 (rarely 8) celled, sometimes only 1 cell fertile. Ovules 1 in each complete or incomplete cell. Style terminal, simple or 2—4 cleft. Fruit usually more or less drupaceous. Seeds endospermic in Stilbeae, otherwise usually not. 9 genera 24 species.

1. Inflorescence racemose (centripetal) in spikes or racemes, ovules basal. 2. Inflorescence cymose. Trees or shrubs. Ovules inserted laterally or pendulous. 7. Inflorescence a branched raceme. Fruit of 4 pyrenes, each 2 chambered and 2 seeded. 6 **DURANTA**.

Inflorescence a spike or unbranched spicate raceme. 3. Ovary 2 celled, 1 ovule in each. Fruit of 2 (or 1) pyrenes. 4. Ovary 4 chambered, with 1 ovule in each chamber. 6. Calyx not less than quarter inch long. 3 **BOUCHEA**. Calyx about one-twelfth inch long. 5. Calyx obscurely toothed or truncate. Fruit drupaceous. 1 **LANTANA**.

Calyx 2—4 lobed or toothed. Fruit dry, hard. 2 **LIPPIA**. 4 **PRIVA**. 5 **VERBENA**. 6 **PRIVA**.

Pyrenes 4, each 1 seeded. 8. Mangroves growing in brackish water. Cymes capitata. 5 **AVICENNIA**. Not mangroves. Cymes not capitata. Ovule lateral. 8. Leaves simple. Drupe 4 lobed or furrowed. Pyrenes 4. 7 **CLERODENDRON**.

Leaves usually compound. Drupe entire, containing a single 4-chambered pyrene. 8 **VITEX**.

1. **LANTANA** L. "umPema." "uQuquvama."

2. **LIPPIA** L.
3. scaberrima Sond. Near Weenen, 3,000 ft.

3. BOUCHEA Cham.
1. hederacea Sond var natalensis H.H.W.P. Thorn veld.
2. cuneifolia Schauer. Coast and Midlands.
3. latifolia Harv. Grassveld, Midlands and Zululand.
4. krookii Gürke. ixopo.

4. PRIVA Adans.
leptostachya Juss. Near Durban.

5. VERBENA L.
1. bonariensis L. Near Richmond. Introduced.
2. officinalis L. Common.

6. DURANTA L.
plurieri Jacq. Doubtful.

7. CLERODENDRON L. "umQongo," "umQwaqwana."
1. glabrum E. M. Coastbelt and Zululand. Small tree.
   glabrum var ovata H.H.W.P. Coastbelt and Zululand.
5. myricoides R.Br. Coastbelt. Shrub, erect or scandent.

8. VITEX L.
1. geminata H.H.W.P. Umhlatusi, Zululand.

9. AVICENNIA L.
officinalis L. White Mangrove. Usually dominant in mangrove formation near river mouths, e.g., near Con-gella.

FAMILY 132—LABIATAE.

Herbs or shrubs, usually with square stems. Leaves opposite or whorled, rarely alternate, simple, extstipulate. Flowers irregular or subregular, hermaphrodite, rarely unisexual. Calyx tubular, usually persistent. Corolla usually 2 lipped and 2—6 lobed. Stamens usually 4, rarely 2, epipetalous. Ovary superior, 4 lobed or 4 parted, 4 celled. Style central, arising from the base between the lobes, simple or 2 cleft. Ovules 1 in each cell. Fruit separating into 4 nutlets. Endosperm little or 0. 21 genera 109 species.

1. Nutlets with large lateral surface of attachment. Ovary slightly lobed, rarely to the middle. Corolla 1 lipped or 2 lipped with upper very short. (Ajagoideae) 2.
Nutlets with a small basal or sub-basal surface of attachment. Corolla 2 lipped or 4—5 lobed. Ovary deeply lobed or divided.

2. Corolla 1 lipped, all its lobes being placed below the stamens. Lobes 5, lowermost largest.
Corolla 2 lipped with short upper lip subentire or 2—5 lobed. Lower lip spreading, 3 lobed.

3. Stamens descending on the lower lip or the lower part of the corolla or lying upon it. Anther halves spreading confluent at the apex. Corolla 2 lipped or nearly regular. Upper lip flattish or not hooded. Lower lip nearly always entire. (Ocimoideae.)
Stamens ascending or projecting straight forwards. Corolla 2 lipped with convex upper and 3 lobed lower lip or sub-equaly 4—5 cleft.

4. Flowers unisexual but with an ovary in male flowers which is never fertile, the sexes on different plants. Calyx minute. Corolla very small. Stamens equally spreading.

11 IBOZA.

Flowers hermaphrodite, all with a fertile ovary.

5. Corolla obscurely 2 lipped, 4 lobed, very small stamens included in corolla tube.
Corolla distinctly 2 lipped, or if obscurely, then 5 lobed.
Stamens exserted.

6. Calyx very small, falling away by a clean cut, just above the base in the fruit. Stamens all free.

8 AEOLANTHUS.

Calyx persistent in the fruit, distinctly 3—5 toothed.

7. Upper pair of filaments bent like a knee or toothed or crested near the base. Style apex 2 cleft or distinctly notched.
Upper pair of filaments not kneeed, toothed or crested, but sometimes bearded or ciliate. Lower pair or all sometimes united.

8. Upper teeth of the calyx separated from the others by a broad space which is ciliate or small toothed along its margin.

1 BECIUM.

No broad space separating upper calyx teeth from the others.

2 OCIMUM.

9. Tall annual. Lower lip of corolla short, saccate abruptly bent downwards, narrowed at the base. 4 upper lobes flat.

10 HYPTIS.

If lower lip of corolla reflexed, then upper unequally 3 lobed.

10. Calyx with 5 equal rigid spinelike teeth. False whorls arranged in dense spikes.

7 PYCNOSTACHYS.

Calyx unequally toothed, or if teeth equal, then not rigid and spinelike or flowers not in very dense spikes.
11. Filaments united at base into a closed tube.  
   Filaments free, or if united, tube slit open.  
12. Calyx subequally 5 toothed. Lower pair of filaments united. 

   4 SYNCOLOSTEMON. 
   Calyx unequally 5 toothed (upper larger), or if equally 5- 
   toothed, then all filaments free. 
13. Upper tooth of calyx much larger than others, suborbicular, 
   very broadly ovate or oblong. Lower lip of corolla con-
   cave. 

   3 ORTHOSIPHON. 
   Calyx usually 2 lipped, 5 toothed. Teeth subequal or upper 
   widest. Lower lip of corolla, entire boat shaped. 

5 PLECTRANTHUS. 

   Stamens 4. 
15. Corolla more or less regular or 2 lipped with a flat upper lip.  

   (Satureieae). 16 
   Corolla distinctly 2 lipped with a convex upper lip.  

   (Stachyeae) 17 
16. Calyx 10 nerved. Corolla subequally 4 lobed. Stamens equal, 
   erect, distant. 
   12 MENTHA. 

17. Stamens included in the tube.  
   Stamens exserted. 
18. Style subequally bifid at the apex.  
   Style branches very unequal, posterior shorter.  
   13 SATUREIA. 

   15 ACROTOME. 

18. Lower lip of corolla about as large as upper  
20. Calyx 6—10 toothed.  
   Calyx 5 toothed. 

1. BECIUM Lindley. (Grassveld herbs.)  
   obovatum var galpini. Zululand and coastbelt. 
2. OCIMUM L. "uQabukulu."  
3. ORTHOSIPHON Bth. (Margins of bush and grassveld.)  
   1. macrophyllus N.E.B. Drakensberg.  
   2. latidens N.E.B. Umvoti.  
   3. macranthus Guerke. Drakensberg, Upper Tugela 
   4. gerrardi N.E.B. Ingoma. Rocky ground.  
   5. stenophyllus Guerke. Midlands and Drakensberg.  
   6. teucrifiolius N.E.B. Drakensberg.  
   7. pretoriae Guerke. Midlands and Drakensberg.  
   8. wilmsii Guerke. Coast and Midlands.  
10. bolusii N.E.B. Giants’ Castle.

4. SYNCOLOSTEMON E.M. (Margins of bush and grassveld.)
   1. lanceolatus var grandiflorus N.E.Br. Near Enon.
   2. argenteus N.E.Br. Zululand.
   3. parviflorus E.M. var dissiflorus N.E.B. Coastbelt.
   4. rotundifolius E.M. Coast and Midlands.

5. PLECTRANTHUS L’Herit. (Margins of bush, Thorn veld, and grassveld.)
   1. calycinus Bth. Coast to Drakensberg. Common.
      calycinus var pachystachyum T. Cooke. Near Umkomaas,
   2. petiolaris E.M. Coastbelt.
   5. rehmannii Guerke. Karkloof.
   6. krookii Guerke. Eisdumbini, 1-2,000 ft.
      krookii var grandifolia T. Cooke. Woods near Kokstad.
   7. ciliatus E.M. Inanda and near Durban.
  10. tysoni Guerke. Dumisa.
  12. kunzzei Guerke. Clairmont.
  13. grandidentatus Guerke. Umkomaas, 4-5,000 ft.
  14. cooperi T. Cooke. Byrne, 3,000 ft. in bush.
  16. zulensis T. Cooke.
  17. purparatus Harv. Umzinyati Falls. Coast.
  18. natalensis Guerke. Midlands and Zululand.
  21. neochilus Schltr.
     "umBondvwe."
  27. dolicopodus Briq. Karkloof.
  29. transvaalensis Briq. Weenen County.
  32. bolusii T. Cooke. Weenen County. Uncertain.
  33. fruticosus L’Hér. Ngoya, Zululand.
6. COLEUS Lour.
   2. sp. Ngoya, Zululand. Cultivated by natives.
   3. sp. Camperdown.

7. PYCNOSTACHYS Hook.

8. AEOLANTHUS Mart.
   2. *canescens* Guerke. Van Reenen.

9. ENDOSTEMON N.E.Br.
   *obtusifolius* Coastbelt.

10. HYPTIS Jacq.
    *pectinata* Pour. Coast and Midlands. Common.

11. IBOZA N.E.Br. "iBoza."

12. MENTHA L.
    1. *longifolia* Huds.
    2. *viridis* L.

13. SATUREIA L. (Micromeria Bth.)
    *pilosa* (Bth.)

14. SALVIA L. (Margins of bush, Thornveld and Grassveld.)
    2. *galpinii* Skan. South Downs, 4-5,000 ft.
    7. *rudis* Bth.
    9. *cooperi* Skan. South Downs, 4-5,000 ft.

15. ACROTOME Bth.
    *hispida* Bth. Doubtful.

16. STACHYS. (Margins of bush and grassveld.)
    1. *grandifolia* E.M. Polela.
    8. aethiopica L. Coastbelt.
       aethiopica var glandulifera Skan. Midlands.
16. *caffra* E.M. Midlands and Drakensberg
17. *tubulosa* MacOwan.

17. **LEUCAS** Burm.

18. **LASIOCORYS** Bth.
*capensis* Bth. Mooi River Valley.

   *leonurus* var *albiflora*. Rarer.
4. *intermedia* Lindl var *natalensis* Skan. Durban and Bushman’s River.

20. **TEUCRIUM** L.
1. *capense* Thb. Common

21. **AJUGA** L.
*ophrhysidis* Burch. Common all over.

**FAMILY 133—SOLANACEAE.**

Herbs, shrubs or rarely trees. Leaves alternate, sometimes in pairs or verticillate. Flowers hermaphrodite, regular or slightly irregular. Calyx 4—5, rarely 6—7 toothed or lobed. Corolla 4—5, rarely 6—7 lobed. Stamens as many as corolla lobes and alternating with them. Ovary superior 2 celled, rarely 3—5 celled, with partition oblique to the medium plane of the flower. Ovules axile, usually numerous. Style simple. Stigma usually 2 lobed. Fruit a berry or capsule. Seed endospermic. 7 genera 31 species.
1. Ovary or fruit 3—5 celled.
   Ovary 2 celled or many celled by cultivation.
2. Calyx enlarged after flowering. Fruit smooth.

4 **NICANDRA.**
Calyx deciduous excepting the base. Fruit usually thorny.

6 Datura.

3. Fruit capsular.

Fruit a berry.

4. Anthers opening by pores.

Anthers opening by longitudinal slits.

5. Calyx not much enlarged in the fruit shrubs.

Calyx much enlarged in fruit.


Herbaceous or suffruticose. Flowers solitary.

3 Withania.

1. Solanum L. "umTuma."

1. nigrum L. Common weed. "umSobo."

2. exasperatum E.M.

3. geniculatum E.M. Coastbelt.

4. bifurcum Hochst. Inanda and Zululand.

5. giganteum Jacq. Coastbelt Doubtful.

6. auriculatum Ait. Coast and Midlands. "umTotovane."

7. aculeastrum Dunal. Coastbelt.

8. sodomaeum Dunal. Introduced weed.

9. aculeatissimum Jacq. Coast to Drakensberg.

10. ferrugineum Jacq. (torvum Sw.) Coastbelt.


13. didymanthum var pluriflorum Dunal. Coastbelt.

didymanthum var spinosa C. H. Wright.


15. tomentosum L.

16. indicum L. Inanda.

17. incanum L. Umhlanga.


20. urosepalum. U. Dummer. Alexandra County, 2,000 ft.

2. Physalis L. "uGqumugqumu."


2. minima L. Coastbelt.

3. Withania Pauq. "ubuVimba."

sunnifera Dunal. Coast and Midlands.


5. Lyceum L.

1. acutifolium E. M. Coast and Midlands.

2. pendulinum Miers. Mooi River Valley.

3. natalense O. Damin.
6. DATURA L.
   1. stramonium L. Common weed. "Stinkblaar." "iVoli"
   2. fastuosa L. Near Durban. Introduced.

7. NICOTIANA L.
   2. tabacum L. Cultivated.

FAMILY 134—SCROPHULARIACEAE.

Herbs, shrubs or trees, sometimes hemiparasitic on roots. Leaves exstipulate. Flowers hermaphrodite, usually irregular. Petals 4—5, united below, imbricate in bud. Stamens usually 4, rarely 2, 3 or 5. Anthers 1 or 2 celled. Ovary superior 2 celled, the partition at right angles to the median plane of the flower, rarely 1 celled or (Bowkeria), 3 celled. Style simple or 2 cleft. Fruit usually capsular. Seeds few or many, endospermic. 31 genera 112 species.

1. Posterior lip or upper lobes of corolla exterior in the bud. 2.
   Posterior lip or upper lobes of corolla overlapped in the bud by one or both the lateral lobes. 20.
2. Leaves all alternate or rarely opposite. Corolla almost regular.
   Tube long. Lobes nearly equal. 1 PELIOSTOMUM.
   Leaves (at least the lower) opposite or all radical. 3.
3. Corolla with 1—2 spurs, pouches or pits. 4.
   Corolla without any pocket or spur. 6.
4. Corolla tube very short or obsolete. Limb rotate or concave.
   2 DIASCIA.
   Corolla with a distinctly developed tube. 5.
5. Posterior lip entire or emarginate. Anterior lip 4 lobed.
   3 NEMESIA.
   Posterio lip 2 lobed. Anterior lip 3 lobed. 4 DICLIS.
6. Shrubs (in one case epiphytic) or trees. Flowers in cymes or cymose panicles or fascicles. Occasionally solitary with 2 bracteoles on the pedicel. 7.
   Herbs or undershrubs. Flowers solitary or in heads, spikes, racemes, or racemose panicles. 12.
   Corolla tube long and narrow. 9.
8. Leaves opposite. Calyx shortly 5 cleft valvate.
   9 ANASTRABE.
   Leaves usually ternately whorled. Calyx 5 parted imbricate in the bud. 10 BOWKERIA.
9. Leaves decussate, fleshy. Epiphyte. 5 DERMATOBOTrys.
   Leaves not decussate. Trees and shrubs. 10.
10. Calyx 3—5 cleft. Anther halves divergent. 6 HALLERIA.
   Calyx 5 parted. Anther halves parallel or nearly so, separate. 11
11. Anthers protruding. Fruit a capsule.
   8 PHYGELIUS.
   Anthers included in corolla tube. Fruit a berry.
   7 TEEDIA.
12. Anther cells confluent hence anthers apparently 1 celled.
   Calyx 5 parted or 2 lipped.
   13. Anthers 2 celled, or if rarely 1 celled, then calyx subequally
   18. 5 lobed (not 5 parted).
13. Calyx 2 lipped or 2 parted. Segments 3 lobed and 2 lobed re-
   spectively.
   15 ZALUSIANSKYA.
   Calyx equally 5 cleft or 5 parted.
   14. Corolla tube very short or obsolete.
   15. Corolla tube distinctly developed, usually long.
   radical.
   Leaves opposite (under Sutera Roth).
   13 SPHENANDRA.
16. Bracts adnate to pedicels or calyx.
   14 PHYLLOPODIUM.
   Bracts free from pedicels or calyx.
   17. Calyx open or nearly open in bud, ebracteate or surrounded
   11 MANULEA.
   by narrow bracts.
   Calyx imbricate in bud or surrounded by broad bracts.
   12 SUTERA.
18. Fertile stamens 2, with or without 2 staminodes.
   18 ILYSANTHES.
   Fertile stamens 4, rarely 3.
   16 MIMULUS.
   Corolla nearly regular. Leaves all radical.
   17 LIMOSELLA.
20. (a) Calyx glume-like, fringed or ciliate.
   19a GLUMICALYX.
   (b) Stamens 2. Calyx not glume like.
   19 VERONICA.
   (c) Stamens 4. Calyx not glume like.
   21. Anthers 1 celled (with only 1 half developed).
   22. Anthers 2 celled in at least 2 of the 4 stamens but 1 half
   sometimes smaller than the other and barren.
   19 HYOBANCHE.
   22. Corolla almost 1 lipped with 3 distinct lobes.
   Corolla regular or 2 lipped with 4—5 lobes.
   23. Corolla subequally 5 lobed.
   25 BUECHNERA.
   Corolla more or less 2 lipped. Lobes unequal.
   24. Corolla tube abruptly bent above the middle.
   21 STRIGA.
   Corolla tube straight or gradually curved.
   25 CYCNIUM.
   25 CYCNIUM.
   26. Anther cells very unequal, 1 fertile, 1 barren, or almost so.
   27 RHAMPHICARPA.
   26. Anther cells equal or 1 narrower, both fertile.
   29 HARVEYA.
   27. Leaves scale like, yellow or reddish.
   Leaves well developed, green.
28. Climbing herb or shrub.  
   Erect branched, rigid herbs.  
29. Corolla tube short, equalling or not much exceeding the calyx.  
   Capsule sub-globose.  
   Corolla tube long, distinctly exceeding the calyx. Capsule acute or acuminate. (Bopua Presl.)  
22 BUTTONIA.  
23 SOPUBIA.  
20 MELASMA.  

1. PELIOSTOMUM Bth. “inTsindwane.”  
   calycinum N.E.Br. Coastbelt. Used by the natives for making scent balls.  
2. DIASCIA Link & Otto. (Mostly grassveld herbs.)  
   1. capsularis Bth.  
   2. cordata N.E.B. Midlands and Drakensberg.  
   3. expolita Hiern. Ismont, 2,000 ft.  
   4. purpurea N.E.B. Drakensberg.  
   5. racemulosa Bth. Near Umzimkulu River.  
   6. rigescens E.M. Near Harding and Drakensberg.  
   7. rotundifolia Hiern. Between Maritzburg and Greytown.  
3. NEMESIA Vent. (Mostly grassveld herbs.)  
   1. albiflora N.E.B. Midlands and Drakensberg.  
   2. cynanchifolia Bth. Coast and Midlands.  
   3. flanagani Hiern. Highlands and Drakensberg, 5,000 ft.  
   5. floribunda Lehm. Coast to Drakensberg.  
   6. melissaeifolia Bth. Midlands and Drakensberg.  
4. DICLIS Bth. Herbs.  
   1. reptans. Common all over in wet places.  
   2. petiolaris Bth. Rare.  
5. DERMATOBOTRYS Bolus.  
   1. lucida L. Coast and Midlands. Common in bush.  
   2. ovata Bth. Fairfield, Alexandra County, 2,800 ft.  
7. TEEDIA Burch.  
8. PHYGELIUS E. M. (Undershubs.)  
   2. capensis E. M. Mont Aux Sources, 6,000 ft.  
9. ANASTRABE E. M. “umDuma.”  
   integerrima E. M. Coastbelt. Shrub or tree.  
   integerrima var serrulata Hiern.  
10. BOWKERIA Harv. Shrubs or trees.  
   1. gerrardiana Harv. Midlands and Drakensberg, 6,500 ft.  
   2. natalensis Schinz. Insiswa, 6,000 ft.  
   3. simpliciflora MacOwan. Van Reenen.
4. **triphylla** Harv. var **pubescens** O. Kuntze. Van Reenen.
5. **velutina** Harv. 'Ndwandwe.

11. **MANULEA** L. (Grassveld herbs or undershrubs.)
   1. **crassifolia** Bth. Midlands and Drakensberg.
   2. **parviflora** Bth. Coast and Midlands.
   3. **thyrsiflora** L.f. var **versicolor** O. Kuntze. Coast.

12. **SUTERA** Roth. (Grassveld herbs or shrubs around bush.)
   1. **arcuata** Hiern. Coldstream, 5,500 ft.
   2. **atropurpurea** Hiern. Near Weenen, 3-4,000 ft.
   3. **aurantiaca** Hiern. Drakensberg.
   4. **bracteolata** Hiern.
   7. **burkeana** Hiern. Zululand.
   8. **brachiata** Roth. Doubtful.
      **crassicaulis** var **purpurea**. Top of Mont Aux Sources, 11,000 ft.
  12. **grandiflora** Hiern.
  14. **kraussiana** Hiern. Coast to Midlands.
      **kraussiana** var **latifolia**. Avoca, 100 ft.
  15. **luteiflora** Hiern. Newcastle, Colenso.
  17. **natalensis** O. Kuntze. Near Durban.
  18. **neglecta** Hiern. Drakensberg.
  20. **pallescens** Hiern. Hills beyond Port Shepstone.
  21. **palustris** Hiern.
  22. **pinnatifida** O. Kuntze var **subcanescens** Hiern.
  23. **platysepala** Hiern. Entumeni, Zululand.
  24. **polensis** Hiern. Drakensberg.
  25. **polyantha** O. Kuntze. Van Reenen.
  26. **pristisepala** Hiern. Drakensberg, Mont Aux Sources.

13. **SPHENANDRA** Benth.
    **viscosa** Benth. Drakensberg.

14. **PHYLLOPODIUM** Bth.
    **bracteatum** Bth. Near Durban. Annual herb.

15. **ZALUZIANSKYA** F. W. Schmidt. (Herbs or undershrubs.)
   1. **capensis** Walp. Midlands and Drakensberg.
      **capensis** var **tenuifolia**. Tugela Valley.
   2. **distans** Hiern. Drakensberg.
   3. **flanagani** Hiern. Mont Aux Sources, 9,500 ft.
   4. **gosetoides** Diels. Drakensberg, 8,550 ft.
5. maritima Walp. Coast to Drakensberg.
   maritima var pubens. Zululand.
   maritima var grandiflora. Drakensberg.
   maritima var breviflora. Drakensberg.
7. ovata Walp. Midlands and Drakensberg.
8. montana Hiern. (Herb.)
16. MIMULUS L.
gracilis R.Br. Coast to Drakensberg. Common.
16a. MONIERA B. Juss.
cuneifolia Michaux. Umlalasi, Zululand.
17. LIMOSELLA L. (Herbs.)
   1. aquatica L. Coast to Drakensberg. Common in wet places.
   2. grandiflora Bth. Midlands.
   3. longiflora O. Kuntze. Van Reenen.
   4. maior Diels. Upper districts.
   5. tenuifolia Nutt. Van Reenen.
18. ILYSANTHES Rafin. (Herbs.)
   1. riparia Rafin. Coast to Midlands. Wet places.
   3. nana Eng. Coast to Drakensberg. Wet rocks.
   4. longiflora O. Kuntze.
19. VERONICA.
   anagallis L. Upper Tugela. Cosmopolitan.
19a. GLUMICALYX Hiern.
   montanus Hiern. Mont Aux Sources.
   1. capense Hiern. Upper districts.
   2. indicum Wettst. Midlands and Upper districts.
   3. natalense Hiern. Midlands.
   4. orobanchoides Eng. Coast and Midlands.
   6. sessiliflorum Hiern. Coast and Midlands.
21. STRIGA Lour. (Hemiparasites in Grassveld.)
   1. elegans Bth. Midlands and Drakensberg.
   2. forbesii Bth. Inanda. Usually in mealie fields.
   3. junodii Schinz.
   "isOna."
   5. orobanchoides Bth. Coast and Midlands.
22. BUTTONIA McKen.
23. SOPUBIA Hamilt. (Herbs.)
   1. cana Harv. Midlands, wet places.
   2. simplex Hochst. Coast to Drakensberg. Wet places.
   3. trifida Hamilt. Midlands.

24. GRADERIA Benth. (Bopusia Presl.) (Herbs.)

25. BUECHNERA L. (Buchnera L.) (Hemiparasites.)
   1. dura Bth. Coast to Drakensberg. Common.
   2. glabrata Bth. Midlands.

26. CYCNIUM E. M. (Hemiparasites in Grassveld.)
   1. adonense E. M. Coast and Midlands. Common.
   2. huttoniae Hiern. Howick.
   3. racemosum Bth. Midlands and Drakensberg.

27. RHAMPHICARPA Bth. (Hemiparasites in Grassveld.)
   1. fistulosa Bth. Midlands.
   2. tubulosa Bth. Coast and Midlands.
   3. serrata Klotsch. Alexandra County.

28. HARVEYA Hk. (Parasites.)
   1. purpurea Harv. Klip River.
   2. bolusii Kuntze. Near Umlaas River.
   5. speciosa. Coast to Drakensberg.

29. HYOBANCHE L. (Parasites.)
    sanguinea Thb. Umzumbi, 100ft.

FAMILY 135—SELAGINACEAE.

Herbs, undershrubs or shrubs, often included as a tribe of the Scrophulariaceae. Leaves alternate or rarely the lower opposite. Flowers hermaphrodite, irregular. Sepals 5. Petals 5 united. Stamens 4. Anthers 1 celled. Ovary superior, 2 celled, or 1 celled by abortion. Ovules 1 in each cell, pendulous, anatropous. Fruit indehiscent or separating into 2 one-seeded nutlets. Endosperm fleshy. 3 genera 32 species.

1. Corolla 4 lobed, deeply slit in front. Calyx spathaceous sub-hyaline entire or 2 parted. 1 HEBENSTREITIA.
   Corolla 5 lobed not deeply slit. Calyx 3 or 5, rarely 2 parted. 2.

2. Calyx with 2 or 3 segments. 2 WALAFRIDA.
   Calyx with 5 segments. 3 SELAGO.

1. HEBENSTREITIA L. *(Mostly Grassveld herbs.)
   1. polystachya Harv. Midlands and Drakensberg. In vleis.
   2. oatesii Rolfe. Doubtful.
   3. elongata Bolus. Midlands.
   5. fruticosa Sims. Midlands and Drakensberg.
6. **dentata** L. Midlands.
7. **integrifolia** L. Sandy flat near Durban.

2. **WALAFRIDA** E.M.
   1. **densiflora** Rolfe. Midlands.
   2. **nachtigali** Rolfe.

3. **SELAGO** L. (Mostly Grassveld herbs.)
   2. **capitellata** Schltr. Imbazane.
   3. **cooperi** Rolfe. Rovelo Hills, 7,000 ft.
   4. **corymbosa** L.
   5. **dielsii** Rolfe. Alexandra County.
   8. **lithospermoides** Rolfe. Rovelo Hills, 7,000 ft.
10. **longiflora** Rolfe. Ilovo, 3,000 ft.
15. **sandersoni** Rolfe. Mont Aux Sources 7-8,000 ft.
16. **saundersiae** Rolfe.
17. **schlechteri** Rolfe. Curry's Post, 4-5,000 ft.
18. **trinervis** E.M. Coastbelt.
20. **immersa** Rolfe. Giants' Castle, 8-10,000 ft.
22. **flanagani** Rolfe. Giants' Castle, 9-10,000 ft.

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**FAMILY 136—BIGNONIACEAE.**

Shrubs or trees. Leaves usually opposite and compound exstipulate. Flowers more or less irregular, hermaphrodite. Sepals united below. Petals united below. Stamens 4 or 5, rarely 2. Ovary 2 celled, or more rarely 1 celled, with parietal placentas. Ovules numerous. Style 1. Stigma of 2 lobes. Fruit capsular or fleshy indehiscent. Seeds exendospermic. 2 genera 2 species.


2 **KIGELIA.**


1 **TECOMARIA.**

1. **TECOMARIA** Spach.
   **capensis** Spach. Coastbelt and Lower Midlands. Shrub. Rambling.
2. **KIGELIA** DC. "iBelelendhlovu." "umFongote." "umZingulu."


**FAMILY 137—PEDALIACEAE.**

Herbs (rarely shrubs) with glandular hairs. Leaves opposite (at least the lower ones), simple. Flowers irregular, hermaphrodite. Calyx 5 partite. Petals 5 united below. Stamens 4 fertile, 1 sterile. Ovary superior 2—8 celled with 2—many ovules in each cell. Style 1. Stigmas 2. Fruit a capsule or nut. Seeds with thin endosperm. 2 genera 2 species.

1. Capsule with 2 horns.
   Capsule without horns.

**1. SESAMUM** L.

**indicum** L. Coastbelt. Cultivated by the natives.

**2. CERATOTHECA** Endl. "umDonqa."

**triloba** E.M. Common weed. Coast and Midlands.

**FAMILY 138—GESNERACEAE.**


**STREPTOCARPUS** Lindl. (Herbs mostly stemless, in moist shady places.)

1. **daviesii** N.E.Br. Qudeni Forest, 6,000 ft.
2. **polyanthus** Hk. Coast to Drakensberg. Common.
3. **haygarthii** N.E.Br. Midlands and Zululand.
4. **saundersii** Hk. Inanda.
5. **tubiflos** C.B.Cl. Inanda, Ingoma.
6. **cooperi** C.B.Cl. Van Reenen (—tubiflos C.B.Cl. partly).
7. **wendlandii** Sprenger. Zululand.
8. **pusilla** Harv. Midlands and Drakensberg
10. **fanniniae** Harv. Midlands.
11. **woodii** C.B.Cl. Midlands.
12. **lutea** C.B.Cl. Tugela River.
13. **prolixa** C.B.Cl. Inanda.
14. **angustilobus** N.E.B. Qudeni Forest.
15. **petherianus** Fritsch. Colenso.

**FAMILY 139—LENTIBULARIACEAE.**

Herbs aquatic or terrestrial, but always in wet places, often with bladders or traps. Flowers irregular, hermaphrodite. Calyx
2 or 5 parted. Corolla 2 lipped, spurred or saccate. Stamens 2. Anthers 1 celled. Ovary superior, 1 celled with free central placenta. Ovules several or many. Fruit a capsule. Seeds exendospermic. 2 genera 10 species.

Calyx of 2 sepals.

1 UTRICULARIA.

Calyx deeply 5 partite. Bladders tubular with 2 spirally twisted arms.

2 GENLISEA.

1. UTRICULARIA. (In vleis or streams. Bladders usually present.)

2. tribracteata Hochst. Terrestrial. Coast and Midlands.
5. stellaris L. Aquatic. Coastbelt and Midlands.
6. foliosa L Aquatic.
7. elevata Kam. Near Durban.
8. exoleta R.Br. Aquatic. Coast to Drakensberg.
9. engleri Kam. Drakensberg.

2. GENLISEA A. St. Hil.

hispidula Stapf.

FAMILY 140—ACANTHACEAE.

Herbs or shrubs. Leaves opposite, simple exstipulate. Flowers more or less irregular, hermaphrodite, 4—5 merous. Petals united below. Fertile stamens 2 or 4. Style simple. Stigma entire or 2 lobed. Ovary superior, 2 celled. Fruit a capsule, more rarely a drupe. Seeds 2 or more. Funicle with an outgrowth (except in Thunbergia). Seeds mostly exendospermic. 22 genera 91 species.

1. Corolla with contorted aestivation (i.e., no lobe wholly within or wholly outside the others in the bud).
2. Corolla imbricate, but not contorted in the bud.
6. 2. Ovules 2 in each cell collateral. Funicle without a distinct outgrowth. Stamens 4. Bracteoles 2 large, enclosing the small calyx.

1 THUNBERGIA.


3. Stamens 2 with or without rudiments of 2 others.

4 CHAETACANTHUS.

Stamens 4, all fertile.
4. Fruit compressed from back to front, 2—4 seeded. Calyx segments very unequal, the posticus ovate, bractlike.

5 PHAULOPSIS.

Fruit terete or 4 angled. Calyx equally lobed or obscurely 2 lipped.
5. Surface of pollen grains honeycombed. Ovules 3 or more in each cell. Capsule usually more than 4 seeded.

2 RUELLIA.

Pollen grains longitudinally ribbed. Ovules 2 in each cell.

Capsule with 4 or fewer seeds.

3 DYSCHORISTE.

6. Corolla 1 lipped, tube short.

Corolla 2 lipped or subequally 5 lobed.

7. Calyx 4 partite to the base. Corolla wanting posticous lip.

6 BLEPHARIS.

Calyx 5 partite to the base. Corolla split down posticous face so that lip has 5 lobes all on one side.

8. Sepals all similar, posticous 1 nerved. 7 SCLEROCHITON.

Posticous sepal broader, 2 nerved, often 2 toothed.

8 CROSSANDRA.

9. Stamens 4, all fertile.

Stamens 2 fertile.

10. Flowers in dense compound heads. Ovules 3 in each cell.

9 CRABBEA.

Flowers in racemes, spikes or heads. Ovules 2 in each cell.

Capsule long stalked.

11. Corolla with 5 lobes, not very unequal.

Corolla 2 lipped.

12. Calyx segments 5 sub-equal. Corolla curved. 11 MACKAYA.

Calyx large. 4 partite to base; 2 lateral segments narrower.

12 BARLERIA.


12 BARLERIA.

Pollen banded, never reticulated. Seeds without hygroscopic hairs.


Anthers 2 celled.

15. Staminodes 2.

Staminodes none. 2 bracts to the flower.

13 RUTTYA.

16. Lower anther cells tailed (except in Justicia campylostemon).

Pollen grains with rows of tubercles.

17. Lower anther cells not tailed or very slightly tailed in Adhatoda which has no rows of tubercles on the pollen.

18. Corolla tube slender, much longer than the limb.

16 SIPHONOGLOSSA.

Corolla tube not much longer than the limb.

19. Seeds usually 4 to the capsule, rough or tubercled.

14 JUSTICIA.

Seeds 2 to the capsule, smooth, usually shining.

15 MONECHMA

19. Anther cells at equal heights or one a very little below. 20.

One anther cell completely below the other.

17 ADHATODA.

18 RHINACANTHUS.

19 ISOGLOSSA.
Bracts longer than the calyx. 2 bracts to the flower, one of which belongs to an imperfect second flower.

22. Stamens inserted at the throat of the corolla. Fruit oblong, partition not separating from the valves.

20 PERISTROPHE.
Stamens inserted in the corolla tube. Fruit ovate, partition separating from the valves at maturity.

22 DICLIPTERA.
1. THUNBERGIA L.f. (In Grassveld or around margins of bush).
   2. purpurata Harv. Inanda and Zululand.
   3. venosa C.B.Cl. Itafamasi, 1,500 ft., and Inanda. Straggler.
   4. hirtistyla C.B.Cl.
   5. atriplicifolia E.M. Common in grassveld all over.
      atriplicifolia var kraussi. Common all over. "isiPondo."
   7. xanthotricha Lindau. Alexandra County.
   10. pondoensis Lindau. Climber in coastbelt scrub.

2. RUELLIA L. (Herbs or undershrubs, mostly around scrub).
   1. baurii C.B.Cl. Coast and Midlands.
   2. malacophylla C.B.Cl.
   3. ovata Thb. Coastbelt.
   5. woodii C.B.Cl. Midlands.
   6. zeyheri T.And. Mooi River.

3. DYSCRHORISTE Nees. (Mostly around scrub.)
   1. depressa Nees. Coastbelt.
   2. trichocalyx Lindau. Alexandra County, 1,800 ft.

4. CHAETACANTHUS Nees. (Mostly in Grassveld.)
   1. burchellii Nees. Coast and Midlands.
   2. glandulosus Nees. Coastbelt and Thorn veld.
   3. persoonii Nees. Muddy places around Durban Bay.

5. PHAULOPIS Willd. (Phaylopsis Willd.) Scrub.
   1. longifolia T. Thoms. Coastbelt.
   2. parviflora. Coastbelt.

6. BLEPHARIS Juss. (Around scrub and in grassveld.)
   1. angusta And.
2. boerhaavifolia Pers. Coastbelt.
4. longispica C.B.Cl. Estcourt.
7. setosa Nees.

7. SCLEROCHITON Harv.
   harveyanus Nees. Inanda.

8. CROSSANDRA Salisb.
   greenstockii S. Moore. Tugela Valley and Zululand.

9. CRABBEA Harv. (Mostly in Grassveld.)
   1. hirsuta Harv. Coast and Midlands.
   2. nana Nees. Midlands.
   3. pedunculata N.E.B. Inanda.

10. ASYSTASIA Blume. Ruderal or around scrub.
   2. natalensis C.B.Cl.
   3. schimperi T.And. Coastbelt.

11. MACKAYA Harv.
   bella Harv. Coastbelt.

12. BARLERIA L. (Mostly around scrub.)
   1. barbata E.M.
   2. cinereicaulis N.E.B. Coast and Midlands.
   4. gueinzii Sond. Coastbelt.
   5. macrostegia Nees. Coastbelt.
   7. mucronata Lindau.
   9. ovata E.M. Camperdown.
   10. woodii C.B.Cl. Coast and Midlands.

13. RUTTYA Harv.
   ovata Harv. Common around coastbelt scrub.

14. JUSTICIA L. (Mostly in and around scrub.)
   1. betonicoides C.B.Cl. Coastbelt.
   3. cheiranthifolia C.B.Cl.
   4. debilis Lam.
   5. flava Vahl. Coastbelt.
   6. kraussii C.B.Cl. Coastbelt.
   kraussii var florida C.B.Cl. Coastbelt.
   7. petiolaris E.M. Coastbelt and Zululand.
   8. pulegioides E.M. Coastbelt.
   9. rotundifolia E.M. Coastbelt.
10. woodii C.B.Cl. Noodsberg, 2,000 ft.

15. MONECHMA Hochst. (Scrub and Thorn veld.)
   1. atherstonei C.B.Cl. Thorn veld.
   2. bracteatum Hochst. Coastbelt.
   3. fimbriatum C.B.Cl. Thorn veld.

16. SIPHONOGLOSSA Oerst.
   sp. near tubulosa Lindau. Nkandhla, 4-5,000 ft.

17. ADHATODA Nees. (Scrub.) “isiPeka.”
   1. andromeda C.B.Cl. Near Durban.
   2. duvernoia C.B.Cl. Coastbelt and Zululand.
   3. natalensis Nees. Coast and Midlands.

18. RHINACANTHUS Nees.
   communis Nees. Coastbelt.

19. ISOGLOSSA Oerst. (Mostly in and around scrub.)
   1. ciliata Lindau. Coastbelt.
   2. cooperi C.B.Cl. Coastbelt.
   3. delicatula C.B.Cl. Coastbelt.
   4. eckloniana Lindau. Umkomaas, 4-5000 ft.
   5. grantii C.B.Cl. Coast bush.
   7. macowani C.B.Cl.
   8. ovata Lindau. Coastbelt.
   9. stipitata C.B.Cl. Coast bush.

20. PERISTROPHE Nees.
   1. hensii C.B.Cl. Coastbelt.
   2. natalensis T. And.

21. HYPOESTES R.Br.
   1. aristata R.Br. Drakensberg. De Beer’s Pass, 5-6,000 ft.
   2. antennifera S. Moore.
   3. phaylopsoides S. Moore. Noodsberg, 2-3,000 ft.
   4. triflora Roem and Sch. Midlands and Zululand.
   5. verticillaris R.Br. Coast and Midlands.

22. DICLIPTERA Juss.
   1. clinopodia Nees. Valley of Umlaas.
   2. heterostegia Nees. Coastbelt.
   3. quintasii Lindau. Biggarsberg, 4-5,000 ft.

FAMILY 141—PLANTAGINACEAE.

Herbs, undershrubs or shrubs, in the latter case leaves opposite. Leaves sessile, extipulate. Flowers solitary or in spikes or heads, small, regular, 4 merous. Corolla scarious, of united petals. Stamens 4, on the corolla. Filaments long. Anthers large, versa-

**PLANTAGO L.** (Annual or perennial herbs.)
1. dregeana Presl. Coastbelt.
2. lanceolata L. Midlands.
3. major L. Cosmopolitan.
4. remota Lam. Mooi River. In damp ground.
5. longissima Decne. Inanda.

**FAMILY 142—RUBIACEAE.**

Herbs, shrubs or trees. Leaves opposite or whorled, entire, stipulate (stipules interpetiolar or sometimes leaf-like). Flowers regular or nearly so, hermaphrodite, or rarely unisexual. Petals united below. Stamens free, epipetalous, as many as corolla lobes. Ovary inverted. Styles 1 or several, united at the base. Seeds endospermic. 24 genera 85 species.

1. Ovules solitary in each ovary cell. (**Coffeoidae**). 2. Ovules 2 or more in each ovary cell. (**Cinchonoideae**). 17.
2. The (inverted) ovules pendulous or descending, and therefore micropyle superior. Radicle of embryo superior. 3. The (inverted) ovules basal or ascending. Micropyle inferior. Radicle inferior. 8.

11 **ALBERTA.**

Corolla with imbricate but not contorted aestivation. Calyx 4 toothed, not enlarged and coloured in fruit. Flowers in dense heads.

1 **CEPHALANTHUS.**
5. Herbs. 6. Shrubs or trees. 7.

10 **PENTANISIA.**

Ovary 3—5 celled. Fruit fleshy. Leaves whorled. Stigma lobed. (Fadogia) 14 **PACHYSTIGMA.**
7. Ovary 2 celled. Drupe of 1—2 pyrenes. 12 **PLECTRONIA.**


13 **VANGUERIA.**
8. Shrubs or trees. Stem woody throughout. 9. Herbs or undershrubs or if shrubby then flowers small, axillary or dioecious. 10.

15 PAVETTA.

10. Style arms 2, long, filiform, hairy.
    Style 1 with stigma 2 lobed, lobes obtuse, linear or spathulate
    or styles 2. Stigmas capitate.

16 PSYCHOTRIA.

11. Flowers axillary, or, if not, then as usually dioecious.

18 ANTHOSPERMUM.

12. Stipules not like leaves. Leaves opposite.
    Stipules similar to leaves.

16 PSYCHOTRIA.

    Corolla 4 parted. Fruit dry.

17 GALOPINA.


22 RICHARDSONIA.


19 HYDROPHYLAX.

12. Stipules not like leaves. Leaves opposite.


23 RUBIA.


24 GALLIUM.

17 GALOPINA. 

18. Corolla imbricate, usually contorted. Shrubs or trees.

19. Corolla imbricate, but not contorted. Flowers in dense globose
    heads. Ovary 2 celled. Style simple.

20 SPERMALOCE.

17. Corolla valvate. Herbs or undershrubs.
    Corolla imbricate, usually contorted. Shrubs or trees.

18. Calyx lobes unequal. Style arms papillose on both surfaces.
    Flowers cymose.
    Calyx lobes equal or nearly so. Style arms smooth on outer
    surface. Flowers in terminal or axillary panicles.

3 PENTAS.

21 MITRACARPUS.

19. Corolla imbricate, but not contorted. Flowers in dense globose
    heads. Ovary 2 celled. Style simple.

1 CEPHALANTHUS.

20. Ovary 1 celled, but placentas projecting towards centre.

7 GARDENIA.

21. Style more or less deeply cleft. Lobes erect or revolute.

9 TRICALYSIA.

22. Inflorescences terminal or terminal and lateral.
    Inflorescences lateral.

(Webera) 5 TARENNA.

Style not or slightly projecting beyond corolla tube. 24.


4 BURCHELLIA.

Corolla tube short (including Mitriostigma). 6 RANDIA.

25. Seed coat membranous or leathery.

Seed coat fibrous. Flowers in corymbss. 8 OXYANTHUS.

1. CEPHALANTHUS L. "umFomfo."

2. OLDENLANDIA L. (Mostly in Grassveld.)

2. bojeri Hiern. Near Inyezaan, Zululand.
3. caffra E. & Z. Coastbelt.
4. cephalotes Kuntze. Sandy places near Durban.
5. chlorophylla Kuntze. Near Durban.
6. corymbosa L. Zululand.
8. heynii R.Br. Inanda and Drakensberg.
10. macrophylla DC. Near Durban.
11. natalensis Kuntze. Inanda.
14. thymifolia Kuntze. Blaaukrantz, 3-4,000 ft.

3. PENTAS Bth.

wyliei N.E.Br. Zululand, 2-3,000 ft.


"maFutumfuleni."


5. TARENNA Gaertn. (Webera Schreb.)

pavettoides (Bth. and Hk.) Coastbelt.

6. RANDIA L. (incl. Mitriostigma Hochst, and Stylocoryne Cav.)

1. dumetorum Lam. Coastbelt.
2. rudis E.M. Coast and Midlands. Thorn veld. "iNtsindi."
3. parvifolia Harv.
5. axillaris (Hochst) (Mitriostigma). Coastbelt.

7. GARDENIA Ellis. "isiQatankobe." "isiQoba."

1. globosa Hochst. Coast and Midlands. "umSugusugu."

"umSugusi." "inTungwane."
2. neuberia E. and Z. Coast and Midlands. "Tongoti."
3. rothmannia L.f. Midlands and Zululand. "Xelegengane."
5. cornuta Hemsl. Zululand.
8. **OXYANTHUS** DC. “uPondolembalala” “Bovati” or “Bomvati.”
   1. gerrardi Sond. Inanda, Qudeni. Common.
   2. latifolius Sond. Umgeni. “Masapelemo.”
   3. natalensis Sond. Coastbelt.

9. **TRICALYSIA** A. Rich. (Kraussia Harv.) “umSinjane” or “imPonyana.”
   1. floribunda (Harv.) Coastbelt. “inKweza.”
   2. lanceolata (Sond.) Schum. Coast and Midlands. “um-Dhlesa.” “isAnyana.”
   4. capensis (Meisn.) Sim. Coast and Midlands.

10. **PENTANISIA** Harv. “iCitshhumlilo.” “iCimamlilo.”
    1. variabilis Harv. Common all over.
        variabilis var glaucescens. Common all over.
        variabilis var latifolia. Common all over.
    2. longisepala Krause.

    magna E.M. Midlands. Not common.

12. **PLECTRONIA** L. “umVutwamini.” “inQwelambilu.”
    2. ciliata D. Dieter. Coast to Drakensberg.
    4. pauciflora Klotzsch. Midlands.
    6. ventosa L. Coast and Midlands. Thorn veld and bush.
    7. gueinzii (Sond.) Coast and Midlands. Climber. “um-Nyisi.”
    8. obovata (Kl.) Coastbelt. Common. “Xulalembile” or “umBonemfane.”
    9. mundii Sim. Midlands. “Sandulane.”

    4. macrocalyx Sond. Krantzkloof.
    5. pygmaea Schltr. Lidgetton.
    6. venosa Sond. (edulis Vahl.) Coastbelt.

14. **PACHYSTIGMA** Hochst. (Fadogia Schweinfurth.)
    humilis (Wood & Evans). Van Reenen.

15. **PAVETTA** L. “umKedeza.”
    1. assimilis Sond. Drakensberg.
    2. caffra L.f. Coastbelt and Midlands.
3. cooperi Harv. & Sond. Midlands.
5. edentula Sond. Qudeni.
6. gerrardii Harv. Tugela Valley.
7. lanceolata Eck Coast and Midlands. Common. "Sam-pasu."
16. PSYCHOTRIA L. "iBiqongo." "iZele."
   1. capensis Natke. Coastbelt and Midlands. Dense shade bearer.
   2. bachmannii Krause. Ellesmere. 2,000 ft.
17. GALOPINA Thb. (Herbs.)
   1. circaeoides Thb. Drakensberg.
   2. oxyspermum Steud. Near Durban.
18. ANTHOSPERMUM L. (Herbs.)
   1. calycophyllum Sond. Zululand.
   2. hispidulum E.M. Izingolweni.
   3. humile N.E.Br. Ulundi, 6-7,000 ft.
   4. lanceolatum Thb. Common all over.
   5. pumilum Sond. Mooi River.
   6. rigidum E. & Z. Van Reenen.
19. HYDROPHYLAX L. (Herbaceous.)
20. SPERMACOCE L. (Herb.)
   natalensis Hochst. Weed. Common all over.
21. MITRACARPUS Zuccarini.
   dregeanus E.M. Coastbelt.
22. RICHARDSONIA Kunth.
23. RUBIA L. "imPindiza." "inTambiso."
   2. petiolaris DC. Greytown.
24. GALIUM Tourn.
   1. aparine L. Common ruderal.
   2. garipense Sond. Mooi River.
   3. horridum Thb.
   4. rotundifolium L.
      rotundifolium var hirsutum Sond. Olivier's Hoek.
   5. subvillosum Sond. Weenen County and Drakensberg.

FAMILY 143—VALERIANACEAE.

Herbs or undershrubs. Leaves opposite or all radical exstippleate. Inflorescence cymose. Calyx not distinctly developed at

**VALERIANA** L.

*capensis* Thb. Common in vleis all over Natal.

**FAMILY 144—DIPSACEAE.**

Herbs or undershrubs. Leaves opposite, extipulate. Flowers in heads surrounded by general involucre, and each flower with a separate involucel or epicalyx. Petals united below. Stamens 2—4 in the tube exserted, separate. Ovary inferior, 1 celled. Ovule 1 pendulous, inverted. Style simple. Seed endospermic. 2 genera 6 species

Involucre bracts in several rows. Involucel 4 angled, 8 furrowed with 4—8 toothed crown.

**CEPHALARIA.**

Involucre bracts in 2 rows. Calyx crowned with 5 bristles.

**SCABIOSA.**

1. **CEPHALARIA** Schrad.
   1. *attenuata* R. & S. Common all over.
   2. *rigida* R. & S.
      *ustulata* var *pilosa*. Drakensberg.

2. **SCABIOSA** L.
   1. *columbaria* L. Common.
      *columbaria* L. var *dissecta* Sond. Common all over.
   2. *africana* L. Van Reenen.

**FAMILY 145—CUCURBITACEAE.**

Herbs with prostrate or climbing very long stems and simple or branched tendrils. Leaves broad. Flowers unisexual or polygamous, regular or nearly so. Calyx of 5 united sepals. Petals 5, usually united, continuous with top of calyx tube. Stamens 4—5, 4 of them united in pairs rarely all free or united. Ovary inferior, ovules inverted. Fruit a berry or gourd, sometimes dehiscent, more rarely dry and indehiscent. Seeds endospermic. 12 genera 31 species.

1. Stamens 5. One of them sterile. Filaments free. Anthers more or less cohering. Seeds winged. **11 GERRARDANTHUS.**
   Stamens united in pairs or all united in a column, hence apparently 1, 2 or 3. Rarely all free, but then all fertile, though sometimes one or more celled. 2. 2. Anther cells straight or slightly flexuous, rarely shortly inflexed at the base or apex. 3. Anther cells much curved or twisted U or S-shaped. 7. 3. Disc at base of style distinctly developed. **9 MELOTHRIA.**
Disc at base of style indistinct or wanting. 4.
4. Stamens inserted at the throat of the calyx.

**4 MOMORDICA.**
Stamens inserted in the calyx tube.

5. Male flowers solitary or in fascicles or heads. Stamens with a lengthened apical connective. 5 **CUCUMIS.**
Male flowers in racemes.

Staminodes in female flowers small or wanting. Connective prolonged, or, if not, fruit oblong without a beak.

8 **KEDROSTIS.**

7. Corolla campanulate. Anthers cohering. Filaments sometimes all united in a column. 7 **COCCINIA.**
Corolla more or less rotate. 8.

8. Calyx tube of male flowers long, cylindrical, funnel-shaped. 9. Calyx tube of male flowers short, top or bell-shaped. 11.

9. Anthers connate. Female flowers without staminodes. 2 **PEPONIUM.**
Anthers free or loosely cohering. Female flowers with staminodes.

10. Flowers small, yellow or red. Anthers cohering. 1 **TROCHOMERIA.**

Flowers large, white. Climbing herb. 12 **LAGENARIA.**

11. Stamens inserted at the throat of the calyx. 4 **MOMORDICA.**
Stamens inserted in the tube of the calyx. 12.

12. Flowers dioecious. Stigma 1, 3 lobed. Leaf stalk with 2 glands at the apex. 3 **SPHAEROSICYOS.**

13. Stamens with a lengthened 2 cleft apex. Tendrils simple or wanting. Connective of stamens not prolonged at apex. Tendrils branched. 5 **CUCUMIS.**

6 **CITRULLUS.**

1. **TROCHOMERIA** Hook.
1. hookeri Harv. Coast and Midlands.
3. pectinata Bth. & Hk.f. Zululand.

2. **PEPONIUM** Naud. (Peponia Naud.)
mackenii Naud. In bush, near Durban. Rare.

3. **SPHAEROSICYOS** Hk.f.
4. **MOMORDICA** L.
   1. charantia L. Near Durban.
   2. balsaminea L.

5. **CUCUMIS** L.
   2. dissectifolius Naud. Mooi River.
   3. figarei Del. Inanda.
   4. hirsutus Sond. Coast and Midlands. “umTangasana.”
   5. metuliferus E. & Z. Umzimvubo.

6. **CITRULLUS** Neck.
   vulgaris Schrad. Umlaas Valley.

7. **COCCINIA** Wight & Arn.
   1. hirtella Cogn. Midlands and Drakensberg.
   2. mackenii Cogn.
   3. palmata Cogn. Coast and Midlands.
   4. sp. nov. Near Mooi River.

8. **KEDROSTIS** Medic.
   1. foetidissima Cogn. Coast and Midlands.
   2. glauca Cogn. Near Estcourt, 3-4,000 ft.
   3. longipedunculata Cogn. Inanda.

9. **MELOTHRIA** L.
   1. membranifolia Cogn. Inanda.
   2. parvifolia Cogn. Near Durban.
   4. obtusiloba Cogn.
   5. punctata Cogn. Common in light bush all over.

10. **TOXANTHERA** Hk.f.
    natalensis Hk.f. Inanda.

11. **GERRARDANTHUS** Harv.
    2. tomentosa Hk.f. Inanda.

12. **LAGENARIA** Seringe.
    vulgaris Ser.

**FAMILY 148—CAMPANULACEAE.**

Herbs or rarely shrubs. Leaves alternate, rarely opposite, entire toothed or lobed exstipulate. Petals united below. Stamens as many as petals. Ovary inferior or half inferior, rarely (Lightfootia) superior, 2—10 celled. Ovules many, rarely few, apical or basal. Style simple. Fruit a capsule, rarely a berry, nut or drupe. Endosperm fleshy. 5 genera 62 species.

   Anthers free. Flowers regular or irregular.

2 CYPHIA.
Flowers regular or nearly so.

3. Capsule opening by an apical lid or pores.  

5 ROELLA
Capsule opening by apical loculicidal valves.

4. Petals free or nearly so. Narrow.  

3 LIGHTFOOTIA.
Petals united below in a tube.  

4 WAHLENBERGIA.

1. LOBELIA L.
1. anceps L.f. Common on coastbelt.
2. bergiana Cham.
3. cochlearifolia Diels. n’Kandhla.
5. decipiens Sond. Common in wet places all over.
6. erinus L. Groenberg, 2,000 ft.
7. laxa MacOwan. Weenen, 4-5,000 ft.
8. leptocarpa Gressel.
9. dregeana A.DC. Common in upper districts.
11. ottoniana A.DC. Jolivet, 3,000 ft.
12. patula L. var pteropoda. Inanda and Zululand.
13. preslii A.DC. Mawakqa Mt. 6-7,000 ft., and Drakensberg.
14. radicans Thb. Near Durban.
15. scabra Thb. Murchišon Flats.
17. tomentosa L. Ingwavuma, Zululand. Open sandy country.
18. van-reenensis K. Schum.
19. sp. n’Kandhla, 4-5,000 ft. (Wood 8863.)

2. CYPHIA Bergius.
1. elata Harv. Common all over.
2. longifolia N.E.Br. Midlands.
3. corylifolia Harv. Midlands and Drakensberg.
7. assimilis Sond. Uncertain.
8. linarioides E. & Z. Alexandra County.

3. LIGHTFOOTIA L’Herit.
1. capensis Buck. Camperdown.
2. corymbosa O. Ktze. Krantzkloof.
3. fasciculata Spreng.
5. buttoni Sond. Midlands and Drakensberg.

4. WAHLENBERGIA Schrad.
1. capillata v. Brehmer. Polela, 4-5,00—6,000 ft.
2. pinifolia N.E.Br. On damp rocks. Weenen County, 5-6,000 ft.
5. depressa Wood & Evans. Drakensberg, 4—6,000 ft.
7. capitacea A.DC. Coast and Midlands.
9. epacridea Sond. Midlands and Zululand.
10. capensis (L.) A.DC. Midlands.
11. zeyheri Buck. Midlands.
zeyheri var natalensis Sond. Midlands.
12. cernua A.DC. Doubtful.
13. caledonica Sond. Midlands.
dinteri var rotundicapsula v. B. Newcastle.
dinteri var paucilaciniata v. B. Midlands.
dinteri var virgulta v. B. Umgeni.
   (undulata Sond.) ("Shwaqa.")
   grandiflora var fissa v. B.
   grandiflora var lata v. B. Van Reenen.
   paucidentata var tysoni Schinz. Drakensberg.
22. undulata A.DC. Doubtful.
24. denudata A.DC. Kokstad.
25. congestifolia v. Brehmer.
   congestifolia var glabra v. B. Alexandra County.
27. montana A.DC. Midlands and Drakensberg.
   montana var angustisepala v. Brehmer. Van Reenen.
28. oppositifolia A.DC. Common all over.
   oppositifolia var crispa v. Brehmer. Midlands.
29. arenaria A.DC.

5. ROELLA L.
  glomerata A.DC. Near Durban.

FAMILY 147—GOODENIACEAE.

Shrubs or trees. Leaves alternate, undivided, extipulate.
Flowers irregular, hermaphrodite. Calyx truncate, or 5 toothed.
Corolla 5 lobed, slit open behind. Stamens 5, free from corolla.
Anthers free. Ovary inferior, 2 celled. Ovules solitary in each
cell, erect. Style simple. Stigma capitate, surrounded by a fringed
cup. Fruit a drupe. Endosperm fleshy. 1 genus 1 species.

**SCAEVOLA L.**

*thunbergii* E. & Z. (*lobelia* Murr). A common fleshy-leaved strand plant growing in the sand, often within reach of the sea.

**FAMILY 148—COMPOSITAE.**

Mostly herbs and shrubs, but including every variety of growth form. Leaves usually simple, exstipulate. Flowers arranged in heads, surrounded by an involucre of bracts (rarely spikelike or one flowered). Heads containing all hermaphrodite flowers or several sterile (male) or consisting of central (disc) hermaphrodite or male flowers and marginal (ray) female or neuter flowers. Rarely heads unisexual. Calyx limb (pappus) of scales or hairs. Corolla of united petals 3—5 lobed or strap-shaped (ligulate) or wanting. Stamens usually 5 inserted on corolla tube. Anthers connate, opening inwards. Ovary 1 celled, inferior. Ovule 1 erect inverted. Style 2 cleft. Seed exendospermic. 95 genera 479 species.

1. Flowers all ligulate (strap-shaped) (*Cichorieae*).
   2. Disc flowers tubular, with or without ray flowers.
   3. Pappus plumose (bristles conspicuously feathery).

**90 HYPOCHAERIS.**

Pappus of bristles smooth, rough, or shortly ciliate.

3. Fruit ending in a beak.
   4. Fruit not beaked, but sometimes narrowed at apex.
   5. Fruit compressed.

4. Fruit terete or angular, many ribbed.
   5. Fruit much narrowed at top.
   6. Fruit not much narrowed at top.

6. Outer fruits transversely wrinkled or hairy. Inner fruits smooth and glabrous. Stem trailing.
   7. Fruits all alike. Erect plants.

**92 LAUNAEA.**

Fruits terete or angular. Leaves usually all radical

**88 HIERACIUM.**

8. Styles of hermaphrodite flowers at or below point of division thickened or provided with a ring of long hairs. Involucre bracts in several rows.
   9. Styles not thickened nor provided with long hairs at or below the point of division.


10. Receptacle with scales between the flowers. Flowers in clusters.

**82 PLATYCARPHA.**

Receptacle without scales, or if scales present, then flowers not in clusters.
11. Fruits with a basal point of attachment.  
   Fruits with a lateral or oblique point of attachment.  
12. Leaves prickly.  
   Leaves unarmed.  
13. Involucral bracts free, the inner scarious at apex.  
   Involucral bracts united at least at base.  
14. Ray flowers neuter, without achenes or pappus.  
   Ray flowers female, producing achenes.  
15. Pappus of several narrow diaphanous scales.  
16. Involucral bracts united at base only. Receptacle with deep pits.  
   Involucral bracts united to the middle or beyond.  
17. (8) Anthers tailed.  
   Anthers entire, auricled or sagittate, rarely shortly mucronate at the base, but not tailed.  
18. Corolla of hermaphrodite flowers irregular, 2 lipped or deeply divided.  
   Corolla of hermaphrodite flowers toothed or cleft or flowers unisexual.  
20. Receptacle with scales between flowers at least towards margins.  
   Receptacle glabrous or hairy without scales.  
21. All the flowers hermaphrodite.  
23. Style branches truncate. Marginal rows of stigmatic papillae not confluent at tip.  
   Style branches rounded or blunt. Marginal rows of stigmatic papillae confluent at tip.  
24. Pappus of 2—3 keeled scales.  
   Pappus of 10—16 scales, all or half of them awned.  
25. Female flowers 3—6, hermaphrodite 1—2.  
   Female flowers fewer than the hermaphrodite.  
27. (8) Anthers tailed.  
   Anthers entire, auricled or sagittate, rarely shortly mucronate at the base, but not tailed.  
28. Corolla of hermaphrodite flowers irregular, 2 lipped or deeply divided.  
   Corolla of hermaphrodite flowers toothed or cleft or flowers unisexual.  
30. Receptacle with scales between flowers at least towards margins.  
   Receptacle glabrous or hairy without scales.  
31. All the flowers hermaphrodite.  
32. Corolla of marginal flowers, strap-shaped.  
33. Style branches truncate. Marginal rows of stigmatic papillae not confluent at tip.  
   Style branches rounded or blunt. Marginal rows of stigmatic papillae confluent at tip.  
34. Pappus of 2—3 keeled scales.  
   Pappus of 10—16 scales, all or half of them awned.  
35. Female flowers 3—6, hermaphrodite 1—2.  
   Female flowers fewer than the hermaphrodite.  
Hermaphrodite flowers fertile.  
27. Scales between flowers long, deciduous.  
Scales between flowers, short, persistent.  

24 HELICHRYSUM.  
Flowers not dioecious.  
29. Involucral bracts of male heads in 1 row, of female in 2 rows.  
Pappus none.  
Involucral bracts in several rows. Pappus of bristles.  

15 BRACHYLAENA.  
30. Inner flowers hermaphrodite but sterile (male).  
Inner flowers hermaphrodite and fertile.  
31. Corolla of outer flowers strap-shaped.  
Corolla of outer flowers thread-shaped.  
32. Pappus of bristles. Shrubs.  
Pappus absent.  
33. Marginal fruits of several kinds. (If curved then Calendula L. marigold). Fruits straight. Heads small.  

73 OLIGOCARPUS.  
Marginal fruits all alike.  
34. Fruits with 3 wings and a cupular appendage.  

72 TRIPTERIS.  
Fruits without wings or appendages.  
35. Involucral bracts in 1 row or nearly so. Fruits 3 angled, usually tubercled.  
Involucral bracts in 2 or more rows. Fruits smooth.  

75 OSTEOSPERMUM.  
17 BLUMEA.  
36. Pappus of bristles.  
Pappus wanting, at least in marginal fruits.  
37. All fruits without a pappus.  
Outer fruits without, inner with a pappus.  
38. Heads in glomerules. Female corolla shortly toothed.  

21 AMPHIDOXA.  

19 DENEKIA.  
39. Style branches of hermaphrodite flowers hairy outside from tip to below point of division. See 36, 37, 38.  
Style branches hairy only in their upper part.  
40. Style branches blunt or rounded. Marginal rows of stigmatic papillae confluent at apex.  
Style branches usually truncate. Marginal rows of stigmatic papillae not confluent at apex.  
41. Pappus of 3—5 scales.  
Pappus of bristles, or of scales and bristles.  
42. Pappus of scales united below and 7 or more bristles.  

36 PULICARIA.
Pappus of bristles. 43.

Ray flowers white, blue or red. Shrubs. 35 PRINTZIA.
Ray flowers yellow or wanting (Bojeria). 34 INULA.

Corolla of marginal flowers strap-shaped. 45.
Corolla of marginal flowers thread-shaped, or marginal flowers 0. 47.

Pappus of scales united below. Heathlike plants. 28 NESTLERA.

Pappus 0 or of bristles. Not heath-like plants. 46.

Pappus wanting. 71 DIMORPHOTHECA.
Pappus of bristles. 33 ATHRIXIA.

Hermaphrodite flowers fewer than the female. 48.
Hermaphrodite flowers as many as or more than female, or latter 0. 50.

Outer flowers without, inner with plumose pappus. 21 AMPHIDOXA.

Inner and outer flowers with pappus. 49.

Heads 4—8, flowered, cylindrical. 22 ACHYROCLINE.
Heads many flowered. 23 GNAPHALIUM.

Heads 1 flowered. Pappus plumose. Heathlike shrubs. 32 STOEBE.

Heads more than 1 flowered. 51.

Pappus bristles in 3 or more rows. 52.
Pappus bristles in 1 row.

Habit heath-like. Leaves rolled in on upper face. 27 METALASIA.

Habit not heath like. 24 HELICHRYSUM.

(17) Hermaphrodite disc flowers sterile, their style without a stigma, usually entire or short toothed. 54.
Hermaphrodite flowers, at least some of them, fertile. 74.

Anthers sagittate, with acuminate halves. Pappus wanting, rarely cup-shaped. Receptacle glabrous, rarely bristly. 55.
Anthers entire or shortly auricled at the base. 59.

Outer fruits of several kinds (see 33.) 73 OLIGOCARPUS.
Outer fruits all alike. 56.

Fruit with 3 wings, and an apical appendage. 72 TRIPTERIS.
Fruit without distinct wings or appendages. 57.

Fruits smooth or indistinctly ribbed. Rayflowers yellow. Involucre of 2 or more rows. 75 OSTEOSPERMUM.
Fruits 3 angled, usually tubercled. 58.

Involucral bracts in 1 row or 2 indistinct rows. 71 DIMORPHOTHECA.

Involucral bracts in several rows. Rays blue or white. 74 GARULEUM.

Receptacle with chaffy scales. 59.
Receptacle glabrous, or hairy without scales. 62.
60. Heads with female and male (apparently hermaphrodite) flowers. Female corollas strap-shaped or thread-shaped.

Heads unisexual.

61. Female heads 2 flowered.
   Female heads 1 flowered.

62. Pappus of outer fruits 0, or if present, not of bristles.
   Pappus of outer fruits consisting of bristles.

63. Outer flowers with a strap-shaped corolla.
   Corolla of outer flowers tubular or wanting.

64. Corolla of outer flowers very shortly strap-shaped, of inner 4-toothed. Involucre in 2 rows. (Cenia.)
   Corolla of outer flowers distinctly strap-shaped. Involucre rarely in 2 rows and then corolla of inner flowers 5-toothed.

65. Style branches pointed or style undivided. Flowers blue, rarely white.
   Style branches truncate. Fruits 5—10 ribbed.

39 PARTHENIUM.

40 XANTHIUM.

52 AMBROSIA.

53 CHrysanthemum.

58 COTULA.

62 ARTEMESIA.

65 CINERARIA.

68. Involucre bracts free in 1 row.
   Involucre bracts in 2 or more rows.

69. Outer corollas thread-shaped (see 64 and 66).
   Outer corollas strap-shaped.

70. Stem woody at the base.
   Stem herbaceous.

71. Involucral bracts in 2 rows.
   Involucral bracts in 3 or more rows.

72. Involucral bracts in several rows.
   Involucral bracts in 1 row, sometimes surrounded by smaller ones.

73. Style of central flowers 2 cleft (Othonnopsis).
   Style of central flowers undivided.

74. (53) Style branches of hermaphrodite flowers with hairs on the outer surface and below point of division. Stigmatic papillae on inner surface.
   Style branches hairy chiefly in upper part, not below point of division. Stigmatic papillae marginal.

75. Pappus wanting.
   Pappus of scales or bristles.

76. Pappus of scales.
   Pappus of bristles.

77. 81 BERKHEYA.
77. Marginal flowers female, with thread-shaped corollas.

18 LAGGERA.

All flowers alike with corollas 5 cleft.

78. Style branches long, blunt semicylindrical, hairy in upper part on both sides. Flowers all hermaphrodite, red, blue, or white. Leaves opposite.

2 VERNONIA.

Style branches rather flat, scantily hairy on inner surface or flowers yellow, or partly female, or leaves alternate. 79.


3 ADENOSTEMMA.

Anthers with an apical appendage. Pappus of numerous bristles or of scales. 80.

80. Pappus of 5—10 scales. Herb.

4 AGERATUM.

Pappus of numerous bristles. Climber.

81. Style branches with short subequal hairs on upper part, on outer, rarely inner surface.

5 MIKANIA.

Style branches bearing a crown of long hairs, with or without shorter ones above or below, or above and below. 92.

82. Corolla of marginal flowers present, but very short, not overtopping involucre.

83. Corolla of marginal flowers overtopping involucre or wanting.

84. Female flowers in 1 row. Pappus deciduous. Shrubby plants.

12 NOLLETIA.

Female flowers in 2 or more rows.

85. Corolla of marginal flowers strap-shaped, but shorter than style, or thread-shaped.

11 CONYZA.

Corolla of marginal flowers strap-shaped, but longer than style.

86. Ray flowers yellow.

10 NIDORELLA.

Ray flowers red or white (see 71).

12a ERIGERON.

87. Involucral bracts in 1 row or 2 very unequal rows.

64 GYNURA.

Involucral bracts in 2 subequal or 3 or more rows.

88. Ray flowers yellow or wanting.

89. Ray flowers red, blue or white.

90. (a) Pappus bristles in 1 row. Fruits compressed.

13 CHRYSOCOMA.

(b) Pappus bristles in 1 row. Fruits turgid.

13a PENTHERIELLA.

(c) Pappus bristles in 2 or 3 rows.

14 HETEROMMA.
90. Stem woody, at least at base, or, if herbaceous, much branched from base. Pappus in 1 row, rarely in 2. Marginal flowers in 1—2 rows. 8 FELICIA.
   Stem herbaceous, not much branched from base. 91.

91. Involucral bracts in 2 rows. Marginal flowers usually in several rows. (Weeds.) 9 ERIGERON.
   Involucral bracts in 3 or more rows. Marginal flowers in 1—2 rows. 7 ASTER.

92. Pappus of thin, hairlike, simple or toothed, but not feathery bristles, rarely outer fruits without a pappus. Receptacle without scales between the flowers. 93.
   Pappus of strong, awnlike or feathery bristles or of scales sometimes united, or wanting. 97.

93. Involucral bracts in 1 row, united below. 68 EURYOPS.
   Involucral bracts free, nearly or quite to the base. 94.

94. Involucral bracts with a leaf-like crest along the middle nerve. 63 LOPHOLAENA.
   Involucral bracts not crested and winged. 95.

95. Style branches with an awl-shaped hairy appendage without a distinct crown of longer hairs. 64 GYNURA.
   Style branches truncate with a terminal tuft of hairs, or with a hairy appendage overtopping a crown of longer hairs. 96.

96. Fruits, at least the outer, compressed dorsally. 65 CINERARIA.

66 SENECIO.

97. Involucral bracts (at least the inner ones) scarious at tips and edges. Pappus of minute scales or wanting. Style branches truncate with a terminal crown of hairs. 98.
   Involucral bracts rarely scarious at the edges, and if so, then pappus of bristles or style branches ending in a hairy appendage. 110.

98. Anthers arrow-shaped. Halves pointed at base. 71 DIMORPHOTHECA.
   Anthers not arrow-shaped. Halves blunted or rounded at base. 99.

99. Receptacle with scales between the flowers. 100.
   Receptacle glabrous or hairy without scales. 101.

100. Leaves opposite or whorled. Heads solitary at ends of branches. 55 EUMORPHIA.
   Leaves alternate. Heads usually in corymbs without ray flowers. 54 ATHANASIA.

101. Marginal flowers with a strap-shaped corolla 102.
   Marginal flowers not with a strap-shaped corolla. 104.

102. Involucral bracts in many rows imbricate, the outer much shorter. 56 CHYSANTHEMUM.

Involucral bracts in few rows, about equal. 103.
103. Ray flowers yellow, shortly strap-shaped.  
   Ray flowers white, long strap-shaped.  

104. Flowers 4 merous.  
   Flowers 5 merous.  

105. Involucre bracts in several rows, the outer shorter. Inner fruits 4 angled. Heads small.  

58 COTULA. 

57 MATRICARIA. 

106. Pappus ring or crown-shaped.  
   Pappus wanting.  

57 MATRICARIA. 

58 COTULA. 

107. Heads in leafy racemes, spikes or elongated panicles.  

62 ARTEMESIA. 


57 MATRICARIA. 


60 GYMNOPENTZIA. 

61 PENTZIA. 

110. Receptacle with scales between the flowers.  
   Receptacle glabrous, rarely hairy, without scales.  

111. Pappus of 5—6 large, usually spirally rolled scales, and often 5—6 bristles inside.  
   Pappus wanting or crown-shaped or of small scales, or if of large scales, then numbers either 1—2 or 8—16.  

76 URSINIA. 

51 TRIDAX. 

112. Pappus of feathery bristles.  
   Pappus of simple bristles or scales or wanting.  

113. Pappus at least on inner fruits of 8—16 large scales.  

53 GALINSOGA. 

Pappus of 1—2 large scales, or of small scales or bristles, or wanting.  

41 ZINNIA. 

114. Marginal flowers persistent in fruit.  
   Marginal flowers not persistent.  

115. Inner fruits compressed from front to back.  
   Inner fruits not or laterally compressed.  

49 COSMOS. 

116. Ray flowers large white or red. Fruits beaked.  
   Ray flowers if present small. Fruit with prongs.  

48 BIDENS. 

117. Inner fruits much compressed laterally.  

47 SPILANTHES. 

41 ZINNIA. 

118. Inner involucre bracts embracing outer fruits.  

42 SIEGESBECKIA. 

Inner involucre bracts not embracing outer fruits. 

119.
119. Receptacle scales very narrow almost bristle like.

43 ECLIPTA.

Receptacle scales broad or rather broad, convex or keeled. 120.

120. Pappus cup-shaped with or without free bristles, or wanting.

44 WEDELIA.

Pappus of free caducous bristles or scales. 121.

121. Pappus bristles 1—4, broadened below. 46 HELIANTHUS.
Pappus bristles thin, usually numerous. Leaves opposite.

45 MELANTHERA.

122. Involucral bracts free in 1—2 rows. 71 DIMORPHOTHECA.

Involucral bracts united below. 123.

123. Pappus wanting.
Pappus of 3—6 scales.

1. ETHULIA L. "umSokosoko.”
   conyzoides L. Common weed. Coast and Midlands.

2. VERNONIA Schreb.
   1. angulifolia DC. Common. Coast and Midlands.
   2. anisochaetoides Sond. Coastbelt.
      "uHlungahlunga."
   5. dregeana Sch. Bip. In moist places. Coast and Midlands
      hirsuta var flanagani Phillips. Drakensberg.
10. monocephala Harv. Upper districts.
13. pinifolia Less. Coast to Drakensbreg.
15. senegalensis Less. Zululand.
17. sutherlandi Harv. Klip River.
18. vernonella Harv. Near Verulam.

3. ADENOSTEMMA Forst.
   2. caffrum DC. Doubtfully distinct. Inanda.
   3. dregei DC. Doubtfully distinct. Inanda.

4. AGERATUM L.
   conyzoides L. Common weed. Coast and Midlands.
5. **MIKANIA** Willd. "umDlonzo."
   1. capensis DC. (scandens Willd.) Coast and Midlands.
   2. natalensis DC. (scandens Willd.) Coast and Midlands.

6. **DICHROCEPHALA** L’Herit.
   latifolia DC. Annual weed.

7. **ASTER** L. (Including **Diplopappus** DC.)
   1. asper Nees. (Felicia asper O. Hoffm.) Common in grass-veld all over Natal. "uDlutshana" or "umHlungwane."
      asper var pleiocephalus. Common in Midlands.
   2. erigeroides Harv. Coast and Midlands. "isiTelelo."
   3. filifolus Vent.
   5. natalensis Harv. Summit of Table Mountain, Drakensberg.
   7. quinquenervis Klatt. Edge of wood; Polela, 5-6,000 ft.
   8. serrulatus Harv. Zululand.
   9. uliginosus Wood & Evans. Damp places, Drakensberg, 11,000 ft.

10. **FELICIA** Cass.
    1. amelloides Schltr. Drakensberg, 8,700 ft.
    2. drakensbergensis Wood & Evans. Sources of Tugela, 11,000 ft.
    3. laevigata Sond. Drakensberg.
    4. linearis N.E.Br. Amawahqa, 6-7,000 ft.
    5. lingulata Klatt.
    7. muricata Nees. Midlands and Drakensberg.
    8. pinnatifida Wood & Evans. Sources of Tugela, 11,000 ft.

9. **ERIGERON** L.
   1. canadensis L. Weed. Common all over.
   2. linifolius Willd. Weed. Coast and Midlands.

10. **NIDORELLA** Cass.
    1. anomala Steetr. Midlands. Moist places.
    2. auriculata DC. Coast, Midlands and Zululand.
    4. hottentotica DC. Zululand.
    5. linifolia DC.
    6. resedaefolia DC. Itafamasi, 1,500 ft.

11. **CONYZA** Less.
    2. incisa Ait. Inanda, 2,000 ft. "uMachakazi."
    5. pinnatifolobata DC. Midlands and Drakensberg. Common.
    6. podocephala DC. Drakensberg.
12. NOLLETIA Cass.
   2. *rarifolia* Steetz. Midlands and Drakensberg.

13. CHRYSOCOMA L.

13a. PENTHERIELLA O. Hoffm. and Muschler.
   *krookii* O. Hoffm. and Muschler. Van Reenen.

14. HETEROMMA Bth.
   1. *decurrens* Bth. Van Reenen, 6,000 ft.
   2. *simplicifolia* Wood & Evans. Polela, Drakensberg, 7,000 feet.

15. BRACHYLAENA R.Br. “isiDuli.”
   1. *dentata* DC. Noodsberg, 3,000 feet.
   2. *discolor* DC. Coast up to 2,000 ft. Common. Tree. “um-Pahla.”
   5. *uniflora* Harv. Qudeni, Zululand, 6,000 ft.

16. TARCHONANTHUS L.
   1. *camphoratus* L. Common tree in coast scrub and occasional in Midland Thorn veld.
   3. *trilobus* DC. Inanda and Zululand.

17. BLUMEA DC.
   1. *lacera* DC. Common up to 2,000 ft.

18. LAGGERA Sch. Bip.
   *alata* Sch. Bip. Coast and Midlands.

18a. PLUCHEA Cass.
   *dioscorides* DC. Lower Tugela, 1—300 ft.

19. DENEKIA Thb.
   1. *capensis* Thb. Common in moist places all over.
   2. *glabrata* DC. Vlei near Howick, 4-5,000 ft.

20. SPHAERANTHUS L.
   *peduncularis* DC. Moist places. Midlands.

21. AMPHIDOXA DC.
   *gnaphaloides* DC. In damp ground. Coast and Midlands.

22. ACHYROCLINE Less.
   sp. (Wood 523) Swampy ground, Inanda.

23. GNAPHALIUM L.
   1. *luteo-album* L. Coast to Drakensberg.
   2. *purpureum* L. Common weed.
   3. *undulatum* L. Weed.
24. HELICHRYSUM Adans.

1. natalitium DC. Coast and Midlands.
2. stenopterum DC. Coast and Midlands.
3. gerrardi Harv. Inanda.
4. odoratissimum (L.) Less. Drakensberg.
5. infaustum Wood & Evans. Drakensberg, 6—9,000 ft.
    infaustum var discolor Moeser. Mont Aux Sources
8. subglomeratum Less. Midlands and Drakensberg.
11. oligopappum Bolus. Midlands, 3-4,000 ft.
12. alticolum Bolus var montanum. Mont Aux Sources, 9,500 feet.
13. callicomum Harv. Midlands and Drakensberg.
14. dasyccephalum O. Hoffm. Van Reenen.
18. fruticosum (Forsk) Vatke. Insiswa, 6,500 ft.
20. pedunculare (L.) DC. Midlands.
22. thapsus O. Hoffm. Midlands, 4-5,000 ft.
    allioides var dilatatum Moeser. Coastbelt.
    nudifolium var leioptodium (DC.) Moeser. Pinetown.
25. subulifolium Harv. Mooi River.
26. miconiae folium DC. Midlands.
27. krebssianum Less. Midlands and Drakensberg.
28. calocephalum Klatt. Doubtful; confused with last.
29. undatum (Thb.) Less.
    undatum var pallidum. Drakensberg foothills.
30. mundtii Harv. Drakensberg, 6,500 ft.
31. acutatum DC. Coastbelt grassveld.
    acutatum var rhombifolium Moeser. Inanda.
32. lanatum Harv. Drakensberg.
33. oreophilum Klatt. Midlands and Drakensberg.
34. kuntzei O. Hoffm. Charlestown.
35. dregeanum Sond. Drakensberg.
36. simillimum DC. Midlands and Drakensberg.
37. athrixifolium O. Hoffm. Colenso, 3-4,000 ft. Somkeli.
38. rugulosum Less. Midlands.
39. rosum (Berg) Less. var concolorum.
42. auronitens Sch. Bip. All over in wet places. "in Kondhlwane."
43. obductum Bolus. Noodsbeng, 2—3,000 ft.
44. trilineatum DC. var tomentosum Harv. Drakensberg.
45. hypoleucum Harv. Midlands and Drakensberg. In kloofs.
46. capilaceum Less. Midlands and Drakensberg.
47. ericaefolium Less var vulgare Harv. Durban.
ericaefolium var albidulum DC. Midlands.
ericaefolium var appressifer Harv. Botha's Hill.
49. caespititium Sond. Mt. Gilboa and Drakensberg.
50. argyrospheaeum DC. Zululand.
51. leptolepis DC. Zululand.
53. declinatum Less. Uncertain.
54. serpyllifolium (Berg) Less. Uncertain.
55. diffusum DC. Drakensberg.
56. auriculatum (Thb.) Less. Doubtful.
57. lepidossimum S. Moore. Izinolweni.
58. petiolatum DC. Midlands. Insiswa.
59. chionosphaeeum DC. Mont Aux Sources, 8—10,000 ft.
60. randii S. Moore. Drakensberg, 7—10,000 ft.
61. appendiculatum (L.f.) Less. Midlands and Drakensberg.
appendiculatum var discolor (DC.) Harv. Coast to Drakensberg.
62. ascendens (Thb.) Less. Coast to Drakensberg.
      ascendens var cephaloideum Moeser. Common all over.
63. longifolium DC. Coast and Midlands.
64. pannosum DC. Midlands.
65. sessile DC. Drakensberg.
66. squamosum Thb. Common all over.
67. argyroloepis MacOwan. Byrne, 3,000 ft.
68. confertifolium Klatt. Insiswa, 6,000 ft.
69. scapiforme Moeser. Midlands and Drakensberg.
70. marginatum DC. Midlands and Drakensberg, to 10,000 ft.
71. album N.E.Br. Drakensberg, 7—10,000 ft.
72. adenocalpurn DC. Coast to Drakensberg. Common.
73. elegantissimum DC. Mont Aux Sources, 9,500 ft.
74. decorum DC. Coastbelt. Common.
75. foetidum (L.) Cass. Coast to Drakensberg. Common.
76. setosum Harv. Midlands.
77. fulgidum (L.) Willd. Coast to Drakensberg. Common.
      fulgidum var moconealum DC. Coast to Drakensberg.
78. cooperi Harv. Coast to Drakensberg.
79. fulvum N.E.Br. Drakensberg.
80. haygarthii Bolus. Van Reenen.
81. epapposum Bolus. Uncertain.
82. flanaganii Bolus. Mont Aux Sources, 9,500 ft.
84. opacum Klatt. Amajuba Mt., 6—7,000 ft.
85. polycladum Klatt. Uncertain.
86. retortoides N.E.Br. Drakensberg.
87. woodii N.E.Br. Rocks near Emberton, 2,100 ft.
88. setigerum Bolus. Mont Aux Sources.
     setigerum var minor. Van Reenen.
89. homolochrysum S. Moore. Noodsberg, 2—3,000 ft.
90. pondoense Schltr. Fairfield, Alexandra County.
91. bellidiatrum Moeser. Mont Aux Sources, 9,000 ft.
92. obvallatum DC. Ingwavuma N.E. Zululand.

25. LEONTONYX Cass.
     coloratus var intermedius. Zululand.
   2. squarrosus DC. Drakensberg.

26. CASSINIA R.Br.

27. METALASIA R.Br.
     muricata Less. Common in Drakensberg.

28. NESTLERA Spreng.
     virgata N.E.Br. Drakensberg.

29. RELHANIA L'Herit.
     pungens L'Herit. Midlands.

30. MACOWANIA Oliv.
     glandulosa N.E.Br. Tabanhlope.

31. PETALACTELLA N.E.Br.
     woodii N.E.Br. Drakensberg.

32. STOEBE L.
   1. cinerea Thb. Common all over, usually on rocks.
   2. tortilis DC. Murchison Flats, 1—2,000 ft.

33. ATHRIXIA Ker-Gawl.
   1. angustissima DC. Drakensberg, 5—6,000 ft.
   2. arachnoidea Wood & Evans. Polela, 6,000 ft.
   3. asteroides Bolus & Schltr. Karkloof, 4—5,000 ft.
   5. fontana MacOwan. Midlands, 3—4,000 ft., usually in moist places.
   6. gerrardi Harv. Very common on Drakensberg.
   7. phylicoides DC. Common all over.
   8. pinifolia N.E.Br. Bushman's Caves, Drakensberg
   9. sp. (Evans 513). Umzimkulwana, 5—6,000 ft.
34. INULA L. (Bojeria DC.)
   lanceolata (Harv.) O. Hoffm.
35. PRINTZIA Cassini.
   1. asteroides Schltr. Ixopo, 4—5,000 ft.
   2. densifolia Wood & Evans. Nr. York, 3—4,000 ft.
   3. laxa, N.E.Br. Drakensberg.
   4. pyrifolia Less. Inanda and Drakensberg
36. PULICARIA Gaertn.
   capensis DC. Coastbelt.
37. GEIGERIA DC. Costbelt.
   1. burkei Harv. Zululand.
   2. passerinoides Harv. Zululand and Drakensberg.
   3. protensa Harv. Zululand.
   4. natalensis Wood & Evans. Stony hill above Greytown.
38. CALLILEPIS DC.
   laureola DC. Common all over. "imPila."
39. PARTHENIUM L.
   hysterophorus L. Near Verulam. Introduced.
40. XANTHIUM (Tourn) L. "uNonqamunqamana."
   1. spinosum L. Common weed. Introduced. "iliGcume."
   2. strumarium L. Common weed. Introduced.
   3. occidentale.
   4. italicum.
41. ZINNIA L.
   pauciflora L. Common in waste places. Introduced.
42. SIEGESBECKIA L.
   orientalis L. Common weed. Introduced.
43. ECLIPTA L.
   erecta L. Common weed.
44. WEDELLIA Jacq. "ubuHlungwane."
45. MELANTHERA Rohr.
   browniei Sch. Bip. Inanda, 1,800 ft.
46. HELIANTHUS L.
   1. annuus L. Mostly in cultivation. Introduced.
   2. giganteus L.
47. SPILANTHES Jacq.
   africana DC. (acmella L.) Common weed.
48. BIDENS (Tourn) L. "uQadolo."
   2. bipinnata L. Rarer. Introduced.
49. COSMOS Cav.
   bipinnatus Cav. Weed. Introduced.
50. *TAGETES* L.  
1. *erecta* L. Weed.  

51. *TRIDAX* L.  

52. *AMBROSIA* L.  
*artemisiaefolia* L. Camperdown, 2,000 ft.

*parviflora* Cav. Common weed.

54. *ATHANASIA* L.  
2. *coronopifolia* Harv. Nottingham Road, 4—5,000 ft.  
3. *dregana* Harv. Ingele Mt., 3,000 ft.  
9. *natalensis* Schltr. Fairfield, Alexandra County, 2—3,000 feet.

55. *EUMORPHIA* DC.  
*sericea* Wood & Evans. Drakensberg, 8—10,000 ft.

56. *CHRYSANTHEMUM* (Tourn) L.  
1. *osmitoides* Harv.  

57. *MATRICARIA* L.  
1. *nigellaefolia* DC. Common in moist places.  

1. *anthemoides* L.  
3. *hispida* (Bth. & Hk.) Midlands.

59. *SCHISTOSTEPHIUM* Less. (Under *Tanacetum* L.)  
2. *rotundifolium* Fenzl. Coast to Inanda, and Zululand.  
3. *griseum* (Harv.) Hutchin. Near Pinetown, 1,000 ft.  
5. *hippiaefolium* Hutchin. Makwaqa Mt.  

60. *GYMNOPENTZIA* Bth.  
*pilifera* N.E.Br. Bushman’s Caves. Drakensberg, 6-7,000 feet.
61. PENTZIA Thb.
  1. asteroides Schltr.
  2. cooperi Harv. Below Mont Aux sources, 9—10,000 ft.
  3. pinnatifida Oliv. Midland grassveld.

62. ARTEMESIA L. “umHlonyane.”
   afr. Jacq. Common around bush, all over.

63. LOPHOLAENA DC.
   1. dregeana DC. Lower Umzimkulu grassveld, 300 ft.
   2. platyphylla Bth. Noodsberg, 2—3,000 ft.

64. GYNURA Cassini.

65. CINERARIA L.
   1. albitus N.E.Br. Byrne, Polela, Zululand.
   2. atriplicifolia DC. Coast and Midlands.
   3. decipiens Harv. Inanda.
   4. deltoidea Sond.
   5. lobata L’Herit. Drakensberg.
   6. lyrata DC. Near Mooi River, 3—4,000 ft.
   7. othonnoides Harv.
   8. geifolia L. Van Reenen, 5—6,000 ft.
   9. montana Bolus. Drakensberg, 5—6,000 ft.

66. SENECIO L.
   1. achillaefolius DC. Near Greytown, 4—5,000 ft.
   2. adenophyton Schltr. and Muschler. Alexandra County.
   3. albanensis DC. Hilton Road.
   5. barbatus DC. Liddesdale, 4—5,000 ft. Drakensberg, 9,500 ft.
   7. bryoneaefolius Harv. Ismont, 2,000 ft.
   8. bupleuroides DC. Common all over.
   9. burchellii DC. Near Byrne, 2—3,000 ft.
   10. caudatus DC. Vleis. Eisdumbeni and Inanda, 2,000 ft.
   11. caulopteris Harv. & Sond. Umhlanga, 3—5,000 ft.
   13. concolor DC. Damp places. “iliDambisa.”
   14. crenatus Thb. Zululand, 2,000 ft.
   15. crenulatus DC. Illovo, 1,800 ft.
   16. crenulatus var discoideus. Near York, 4,000 ft.
   17. decurrents DC. Midlands and Drakensberg.
   18. drakensbergensis Klatt. Drakensberg.
22. *fulgens* Nichols. Inanda, 2,000 ft.
24. *galpini* Hk.f.
25. *glaberrimus* DC. Umzimkulu.
27. *harveianus* MacOwan. Greytown, 3—4,000 ft.
29. *hieracioides* DC. Drakensberg.
30. *isatideus* DC. Near Estcourt and Drakensberg.
32. *kuntzei* O. Hoffm.
33. *lanceus* Ait. Coastbelt.
34. *latifolius* DC. Very common all over.
35. *lasiorhiza* DC. Inanda and Zululand.
36. *launayaefolius* O. Hoffm. Drakensberg, 4,000 ft.
37. *leontodontis* DC. Zululand.
38. *longifolius* DC. Umkomanzi.
41. *mikanioides* Ott.
42. *napifolius* MacOwan. In ravine, South Downs, 4—5,000 ft.
43. *nudiusculus* DC. Van Reenen’s Pass, 5—6,000 ft.
44. *oblongoideus* DC. Alexandra County, 1,800 ft.
45. *othonnaeflorus* DC. Vlei, Van Reenen, 5—6,000 ft.
46. *oxyodontus* DC. Midlands, 2,000 ft., and Zululand, 2,000 ft.
47. *oxyriaefolius* DC. Murchison Flats, 1—2,000 ft.
49. *paniculatus* Berg.
50. *paucicalyculatus* Klatt. Biggarsberg and Drakensberg.
51. *pellucidus* DC. Inanda, 1,800 ft.
52. *picridifolius* DC. Coastbelt vleis and Zululand.
54. *prostratus* Klatt. Insiswa Mt., 6,800 ft.
55. *pterophyllus* DC. var *apterus*. Coast and Midlands. Common.
57. *purpureus* L. Inanda, 1,800 ft.
58. *quinquelobus* DC. var *helminthoideus*. Inanda, 1,800 ft.
59. *rhomboideus* Harv. Coast to Drakensberg.
60. *rhyncolaenrus* DC. Coast and Midlands.
61. *rigidus* L. Near Harding, 3—4,000 ft.
62. *rudatisii* Schltr. & Muschler. Alexandra County, 1,800 ft.
63. *sandersonii* Harv. Midlands and Drakensberg.
64. *segmentatus* Oliv. Fields Hill, 1,500 ft.
65. *serra* Sond.
66. *seminivea* Wood & Evans. Mont Aux Sources, 10—11,000 feet.
67. *serratuloides* DC. Coast and Midlands.
68. *speciosus* Willd. Coast and Midlands.
70. *subrubriflorus* O. Hoffm. Drakensberg.
71. *tamoides* DC. Coast and Midlands. Climber.
73. *thyrsoides* DC. Drakensberg, 5—9,000 ft.
74. *trachylepous* Klatt.
75. *tugelensis* Wood & Evans. Mont Aux Sources, 10—11,000 feet.
76. *tysonii* MacOwan. Near Richmond, 2—3,000 ft.
77. *venosus* Harv. Vlei near Richmond, 2—3,000 ft.
78. *viscidus* N.E.Br. (subrubiflorus O. Hoffm?) Van Reenen, 5—6,000 ft.
79. *sp.* with nearly terete fleshy leaves. (Wood 9624), Greytown.
80. *reptans* Turcz. Summit of Mont Aux Sources, 10,000 ft.
84. *montanus* Phillips. Mont Aux Sources, 9,500 ft.

67. **HERTIA** Less. (**Othonnopsis** Jaub. & Schacht.)
   - *natalensis* O. Hoffm. Near Mooi River, 4—5,000 ft.

68. **EURYOPS** Cassini.
   2. *natalensis* Schltr. & Muschler. Alexandra County, 1,800 ft.
   5. *setiloba* N.E.Br. Nottingham Road, 4—5,000 ft.

69. **GAMOLEPIS** Less.

70. **OTHONNA** L.
2. *disticha* N.E.Br.

71. **DIMORPHOTHECA** Moench.
3. *cuneata* DC.
4. *fruticosa* DC. Common on sea beach.
5. *nudicaulis* DC. var *latifolia* H. Van Reenen, 5—6,000 ft.

72. **TRIPTERIS** Less.
*natalensis* Harv. Zululand. "uMadintsana."

73. **OLIGOCARPUS** Less.

74. **GARULEUM** Cass.
3. *woodii* Schinz. Charlestown, 5—6,000 ft.
4. *sp.* (Wood 4385). Weenen County, 5,000 ft.

75. **OSTEOSPERMUM** L.
1. *calendulaceum* Harv.
2. *caulescens* Harv. Mooi River, 4—5,000 ft.
4. *grandidentatum* DC. Inanda, 1,800 ft. "iXoboxobo."
5. *helichrysoideus* DC. Umzimkulu.
7. *lanceolatum* DC.
8. *moniliferum* L. Common all over. Dominant in many places on seaside of sand dunes. "Etolonja."
10. *nervatum* DC. Coast and Midlands. "uMasigeolo."
11. *sonchifolium* DC. Klip River County.
12. *sp.* (Wood 9807) Zululand.

76. **URSINIA** Gaertn.
1. *alpina* N.E.Br. Damp rocks, Ulundi, 5—6,000 ft.
2. *brevicaulis* Wood & Evans. Drakensberg, 6,000 ft.
3. *apiculata* DC.
4. *natalensis* N.E.Br. 'nKandhla, Zululand, 4—5,000 ft.
5. *punctata* B. & M. Oliver's Hoek, Drakensberg.
6. *foeniculata* Poir. Weenen County, 5,000 ft., and Zululand.
7. *montana* DC. Drakensberg.

77. **HAPLOCARPHA** Less.
*scaposa* Harv. Grassveld, Drakensberg and Upper Districts.

79. **VENIDIUM** Less.
   2. *microcephalum* DC. Buffalo River.

80. **GAZANIA** Gaertn.
   1. *armerioides* DC. Drakensberg.
   2. *bracteata* N.E.Br.
   3. *caespitosa* Bolus.

81. **BERKHEYA** Ehrh. (incl **Stobaea** Thb.)
   2. *carlinoides* Willd.
   3. *debilis* MacOwan. Midlands. “uLimilwenkomo” or “uLimilwenyathi.”
   10. *montana* Wood & Evans, Drakensberg.
   12. *radula* Drakensberg.
   16. *umbellata* DC.
   17. *seminivea* Harv.
   18. *purpurea* Bth & Hk.f. Drakensberg.
   19. *acanthopoda* (DC.) (**Stobaea**).
   20. *discolor* (DC.) (**Stobaea**). Lower Umkomaas, 150 ft.
   21. *echinacea* (Harv.) (**Stobaea**). Charlestown, 5—6,000 ft.
   23. *gerrardi* (Harv.) (**Stobaea**). Emyati.
   24. *multijuga* (DC.) (**Stobaea**). Summits of Mont Aux Sources.
   25. *mackenii* (Harv.) (**Stobaea**). Highlands.
   26. *platyptera* (Harv.) (**Stobaea**). Coast and Midlands.
27. *rhapontica* (DC.) (*Stobaea*). Inanda.
30. *bilabiata* N.E.Br. Van Reenen, 5—6,000 ft.

82. **PLATYCARPHA** Less.
   *glomerata* Less. Inanda. Rare.

83. **CENTAUREA** L.
   1. *solstitialis* L.Introduced weed.
   2. *melitensis* L.Introduced weed.

84. **CNICUS** L.
   *lanceolatus* Willd. Introduced weed.

85. **DICOMA** Cassini (Grassveld.)
      *anomala* var *circioides*. Drakensberg, 5—6,000 ft.
      *anomala* var *microcephala*. Ladysmith 3—4,000 ft.
      *anomala* var *sonderi*. Drakensberg, 6,500 ft.
   3. *macrocephala* DC. Upper Tugela, 4—5,000 ft.
   4. *sessiliflora* Harv.
   5. *speciosa* DC.

86. **ANISOCHAETA** DC.
   *mikanioides* DC. Inanda. Fairly common.

87. **GERBERA** Gronovius.
   5. *parva* N.E.Br. Drakensberg, 6—9,000 ft.

88. **HIERACIUM** L.
      *capense* var *microcephala*. Upper Tugela, 4—5,000 ft.

89. **CREPIS** L.

90. **HYPOCHAERIS** L.
   1. *glabra* L. Near Durban.
   2. *radiata* L. Mt. Gilboa, 4—5,000 ft.

91. **LACTUCA** L.
3. *indica* L. Inanda, 1,800 ft.

92. **LAUNAEA** Cassini.
   *bellidifolia* Cass. Sand dunes, near sea.

93. **SONCHUS** L.
   1. *ecklonianus* DC. Phoenix, 120 ft.
   4. *rarifolius* Oliv. & Hiern. Weenen County, 4,500 ft.
ERRATA.

Page 2.—Line 8 from top: For “gentleman” read “gentlemen.”
Page 9.—No. 19: For “1 JUNCAEAE” read “19 JUNCAEAE.”
Page 10.—No. 33, end of line: For “39” read “34.”
Page 42.—No. 26: For “KOELERIA ers” read “KOELERIA Pers”
Page 44.—Under CHLORIS: For “umTaka” read “umYaka.”
Page 48.—Under CYPERUS L. add “4. corymbosus L. Coastbelt.”
Page 49.—No. 14: For “Stevd” read “Steud.”
Page 58.—No. 25: For “Van Reneen” read “Van Reenen.”
Pages 63 and 66: For “VELLOSIA” read “VELLOZIA.”
Page 69.—No. 9: For “K. Kah.” read “C. Koch.”
Page 69.—No. 11: For “Nuller” read “Miller.”
Page 76.—No. 23: For “Thonars.” read “Thouars.”
Page 84.—Last line: For “Hads.” read “Huds.”
Page 107,—No. 75: For “MILLETIA” read “MILLETTIA.”
Page 109.—No. 9: For “C. & Z.” read “E. & Z.”
Page 130.—Under ELAEODENDRON: For “capensis” read “capense” and for “albanensis” read “albanense.”
Page 138.—No. 21: For “Melvern” read “Malvern.”
Page 214.—No. 10. 1. For “Steepr.” read “Steetz.”
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