



**MATERIALS
FOR A CATALOGUE
OF
THREATENED PLANTS OF INDIA**

**BOTANICAL SURVEY OF INDIA
DEPARTMENT OF ENVIRONMENT
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Some work on rare, threatened and endemic plants of India has been done in several Institutions for the last few years. It was felt that in connection with the IUCN Plants Campaign Programme in India, consolidating the list on threatened plants would be useful. It will facilitate further work as also conservation of certain species.

We are fully conscious that the list in the following pages is not exhaustive and will grow as studies progress.

We are grateful to Dr. T. N. Khoshoo, Secretary, Department of Environment, Govt. of India for encouraging us to put this data together and to several other colleagues in Botanical Survey of India and other Institutions, on whose publications or personal communications, this list is based.

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INTRODUCTION

It is common knowledge that a number of plants (and also the animals) in our country and the world are threatened with depletion or extinction.

The IUCN Threatened Plants Committee has given following tentative list of threats to plants.

1. Grazing
2. Regeneration of scrub (and lack of grazing)
3. Changes in arable farming
4. Ploughing of old grassland
5. Forestry
6. Traditional rural practices
7. Flooding
8. Drainage
9. Water pollution
10. Air pollution
11. Industrialization and urbanization
12. Road building
13. Tourism and tourist development—coastal
14. Tourism and tourist development—inland
15. Dam construction
16. Mining and quarrying
17. Pressure from introduced plants
18. Collectors for horticulture
19. Collectors for botany
20. Critically low population—say below 100 individuals (hence IUCN category—Endangered)
21. Natural causes
22. Lack of pollinators
23. Other threats

There has been much inconsistency all over the world in the use of various terms to define rarity such as the terms: *endangered, vulnerable, rare, threatened, etc.*, and the International Union for Conservation of Nature and Natural Resources (IUCN) has now issued guidelines on this subject.

DEFINITIONS OF CATEGORIES/STATUS

INTERNATIONAL UNION FOR CONSERVATION OF NATURE AND NATURAL RESOURCES—THREATENED PLANTS COMMITTEE

The Red Data Book Categories

The Red Data Book Categories are used by IUCN to indicate the degree of threat to individual species in their *wild habitats*. They are used for both flora and fauna. Below are given formal definitions of the categories together with additional information to clarify and interpret them for use by botanists.

EXTINCT (Ex)

This category is only used for species which are no longer known to exist in the wild after *repeated* searches of the type localities *and other known or likely places*. As interpreted by IUCN, this includes species that are extinct in the wild but surviving in cultivation.

ENDANGERED (E)

“Taxa in danger of extinction and whose survival is unlikely if the causal factors continue operating. Included are taxa whose numbers have been reduced to a critical level or whose habitats have been so drastically reduced that they are deemed to be in immediate danger of extinction”.

This is interpreted to mean including species with populations so critically low that a breeding collapse due to lack of genetic diversity becomes a possibility, whether or not they are threatened by man. An example would be a perennial reduced to 100 specimens occurring on one inaccessible cliff where no man-made threats are likely, but where a land-slide could remove the whole population.

VULNERABLE (V)

“Taxa believed likely to move into the Endangered category in the near future if the causal factors continue operating.

Included are taxa of which most or all the populations are decreasing because of over-exploitation, extensive destruction of habitat or other environmental disturbance; taxa with populations that have been seriously depleted and whose ultimate security is not yet assured; and taxa with populations that are still abundant but are under threat from serious adverse factors throughout their range”.

RARE (R)

“Taxa with small world populations that are not at present Endangered or Vulnerable but are at risk.”

“These taxa are usually localized within restricted geographical areas or habitats or are thinly scattered over a more extensive range.”

The categories 'Rare' and 'Vulnerable' have often been confused in the past or thought to be simply stages on a linear scale of increasing degrees of threat to species in danger. This is not the case because they represent the state of plants in fundamentally different situations, both of which can lead to the 'Endangered' category.

The 'Rare' species has a small world population but is under no known or immediate threat. It is not endangered but is simply at risk because of the size of its population. It may have a very restricted distribution, e.g. it may be endemic to a small island or a single mountain. Alternatively it may have a wider distribution but may be severely restricted by its habitat.

The borderline between 'Rare' and 'neither rare nor threatened' (nt—see below) is a difficult one. Considering the following factors may be helpful:

(1) *Area of distribution:*

When considering the area of distribution, the density of the population must also be borne in mind. Nevertheless, a plant which is restricted to a small area is obviously more at risk than one of a similar population which is more widely spread, and this should be taken into account.

In conclusion, most of the 'Rare' species will not only be endemic to a single mountain range or island but will also be either confined to one part of that area or not be very common throughout their range, unless the island is *extremely* small. When assigning Red Data Book Categories to lists of island endemics, 'Rare' should only be used for those species that have *very restricted* distributions and/or *low* population densities, and ofcourse that are under no immediate or known threat to their survival.

(2) *Population Size:*

It was once considered that any species with less than 20,000 individuals should be considered 'Rare'. The figure is perhaps in the correct order of magnitude and as such is a useful guide. However, there can be no hard and fast rule since some species have a much greater reproductive capacity than others. The situation is complex and each case must be decided on its own merits.

When a species of such a limited distribution comes under threat and starts to become depleted, it should be transferred to the 'Vulnerable' category if threatened over part of its range, or to the 'Endangered' category if all the population is under threat.

In contrast, the 'Vulnerable' species is one that is (or was) more widespread but has become *depleted*. The critical difference between a 'Rare' species and 'Vulnerable' one is that the former has a relatively stable population while the latter is on the decline.

INDETERMINATE (I)

“Taxa known to be Extinct, Endangered, Vulnerable or Rare but where there is not enough information to say which of the four categories is appropriate.”

This category is used for species reported as “? Extinct” or “possibly Extinct” or “probably Extinct” on the assumption that they are either ‘Extinct’ or ‘Endangered’.

INSUFFICIENTLY KNOWN (K)

“Taxa that are suspected but not definitely known to belong to any of the above categories because of the lack of information.”

The key word here is *suspected*. An ‘Insufficiently Known’ species does not have to be *proved* to be in any of the three categories—‘Endangered’, ‘Vulnerable’ or ‘Rare’. Also considered as ‘Insufficiently Known’ may be species of a complex genus, much of which is thought to be in some danger and whose members are not easily distinguished by field characters. An ‘Insufficiently Known’ species can always be transferred to another category when further information becomes available. It is hoped that listing a species as ‘Insufficiently known’ will stimulate others to find out its true status.

OUT OF DANGER (O)

“Taxa formerly included in one of the above categories, but which are now considered relatively secure because effective conservation measures have been taken or the previous threat to their survival has been removed.”

“In practice, Endangered and Vulnerable categories may include, temporarily, taxa whose populations are beginning to recover as a result of remedial action, but whose recovery is insufficient to justify their transfer to another category.”

Rescued species are put into the ‘Rare’ category if the threat has been completely averted, or the ‘Vulnerable’ category if the species is still partly under threat. When deciding on the category, it may be helpful to consider the following:

- (1) Is the plant conserved throughout its range or only in one part?
- (2) How well is it protected in that part?
- (3) What is the status of the reserve in which it occurs?
- (4) How permanent is its protection likely to be?

If only a few specimens survive, the species should still be considered ‘Endangered’. Some species will in due course recolonize their former habitats and become common, so they will no longer remain ‘Rare’ or ‘Vulnerable’. The category ‘Out of Danger’ should then be used.

“For species which are neither rare nor threatened, the symbol ‘nt’ is used.”

Only species in the categories ‘Extinct’, ‘Endangered’, ‘Vulnerable’, ‘Rare’ or ‘Indeterminate’ are included in the Red Data Book and on lists of rare and threatened species. (The categories ‘Insufficiently Known’ and ‘nt’ are required where full lists of endemic species are given).

SPECIES ONLY KNOWN FROM OLD RECORDS

These fall into only 3 categories:

(1) ‘Extinct’. As mentioned above, this is only used for plants not found in the wild after thorough and recent searches of their likely habitat.

(2) ‘Indeterminate’ is the category used for species known only from small areas (e.g. mountain localities) where they have not been recorded for a long time, but where the area has not been thoroughly botanised. However, the area has been botanised to an extent that if the species was refound, it would definitely fall into one of the 3 categories: ‘Endangered’, ‘Vulnerable’, or ‘Rare’. In these cases one must be certain that it could not be abundant and widespread enough to be ‘nt’. One cannot ofcourse apply the categories ‘Endangered’, ‘Vulnerable’ or ‘Rare’ themselves since the species could turn out to be any one of them, or ‘Extinct’.

(3) ‘Insufficiently Known’ is used when the area from which the plant was recorded has been worked in detail to such a small extent that it is a possibility that the species is ‘nt’. Often these areas are under considerable threat (e.g. the Amazon basin) and so it is hoped that more information on the individual species will become available in the near future.

Where full screenings of floras for rare and threatened species are being undertaken, it is felt that ‘Insufficiently Known’ is the best category for those species that are taxonomically uncertain or whose exact delineation is uncertain. Many of these will be species known only from type collections in which it is uncertain whether or not they are good species. It is best to include such taxa on country lists until they have been definitely shown to be not specifically distinct. However, taxonomically clear species only known from *dubious* records in the country concerned (but obviously occurring elsewhere) are best omitted from such lists as are species predicted to occur in the country but not yet actually found there.

The IUCN is preparing a World Red Data Book to include all species of plants and animals which are believed to be threatened and have also suggested to various nations to prepare their own Red Data Books, or lists of threatened plants.

For inclusion of species in the Red Data Book, there is a prescribed proforma which requires information on several aspects.

PROFORMA FOR THE IUCN PLANT RED DATA BOOK.

STATUS

DESCRIPTION

HABITAT AND ECOLOGY

CONSERVATION MEASURES TAKEN

CONSERVATION MEASURES PROPOSED

BIOLOGY AND POTENTIAL VALUE

CULTIVATION

DISTRIBUTION

REFERENCES

Work on Threatened plants in India

India with its mainland area of about 3,267,500 sq. km extends from south to north for 3,200 km between 8°4' and 37°6' N and from west to east for 3000 km between 68°7' and 97°25' E. It is situated in the southern peninsula of the Asian Continent with its triangular peninsula extending into the Indian Ocean and has sometimes been called as a subcontinent. The world's loftiest and longest mountain ranges, viz., the Himalayas, extending for a distance of about 2,500 km from east to west along its northern borders and the 5,700 km long coast line of the peninsula, the great plains of the Ganga-Brahmaputra basin, the extremely arid Thar desert in Rajasthan, the uplands in the Deccan plateau surrounded by the hill ranges of the Vindhya-Satpura system in the north, the western ghats along the western coast line and the eastern ghats along the east coast converging with the Nilgiri mountains in the south, and the extensive riverine systems form the salient physiographic features. Besides the mainland area, the Lakshwadweep (Laccadive & Minicoy islands) in the Arabian sea and the Andaman and Nicobar groups of islands in the Bay of Bengal are also within the territory of India.

It is estimated that there are about 15,000 species of vascular plants in the Indian flora. The flora of northeastern India (Sikkim, Arunachal Pradesh, Nagaland, Tripura, Manipur, Mizoram, Meghalaya and Assam) has considerable admixture of floristic elements of Malesian, Burmese, Sino-Tibetan, Japanese and to a lesser degree even of Australian regions; while the flora in Kashmir, Ladakh and other dry and higher regions of the northwest Himalayas has a relationship with the floristic elements of the Mediterranean and Western- and Middle- Asian mountains. Similarly, one finds certain elements common to the floras of western India and the ghats of the peninsular region and Sri Lanka and eastern parts of South Africa. The flora of Andaman group of islands has more in common with the flora of Burma while the Nicobar group of islands show affinity with the floras of Indonesia, Java, etc.

In spite of such migration of floristic elements from other contiguous or neighbouring regions and from some distant lands, India has a rich percentage of endemic elements in its flora. The high Himalayan ranges in the north with very varied and specialised ecological conditions and niches have not only acted as effective barriers to the influx of species from northern Asian countries, but have also given rise to conditions ideal for evolution of several new species in isolation and thus have contributed to a high percentage of endemism in the flora. These species could not migrate to the north because of the dry Tibetan plateau or to the south due to the warmer alluvial plains and therefore had to remain confined to narrow range. Similarly, the peninsular India with sea as its natural barrier on three sides, has also several endemic species in its flora. The islands of India are also rich in endemics. As endemics are relatively confined to narrow limits of distribution and any disturbance either in their populations or range of distribution would lead to dwindling and even total disappearance of certain species, it is important to consider the endemic content of the flora of India and their habitats or range of distribution as an essential component of studies on rare, threatened and endangered species. The available data, however, largely relate to the dicotyledons. According to Chatterjee (1962) the Himalayas have the largest number of endemics with 3169 species of dicotyledons and about 1000 of monocotyledons; the peninsular India has about 2045 endemic dicotyledons and about 500 endemic monocotyledons. Balakrishnan & Vasudeva Rao (1981) have estimated about 10% of the nearly 2000 known species of flowering plants in the flora of Andaman & Nicobar islands, to be endemic. Jain & Mehrotra (1982) consider that out of the known 3,525 (appr.) species of monocotyledons, approx. 1,275 species are endemic to India, amounting to about 36% of endemism for the monocotyledonous flora. With more and more detailed revisionary studies on families and genera of flowering plants in India and in the neighbouring countries, these estimates in the percentage and numbers of endemics are bound to become more precise. But the fact remains that the flora is very rich in endemism.

In 1978 Henry et al., published an account of rare plants of south India.

In the 11th meeting of the National MAB Committee held on 16th May 1978, the need for preparing a State-of-the-Art Report on threatened plants was felt and accordingly a small illustrated booklet entitled "Threatened Plants of India—A State-of-the-Art Report (Jain & Sastry 1980) has been published.

In order to collect data on rare plants resources and to develop materials for the Red Data Book of Indian Flora, work is being done in several institutions such as the Botanical Survey of India, National Botanical Research Institute, Lucknow, National Bureau of Plant Genetic Resources, New Delhi and the Forest Research Institute, Dehra Dun.

The following list is an enumeration of regionwise plant species considered to be rare or threatened. The status has been indicated for several species where data were available for such evaluation. Endemism, absence of collections in Herbaria, failure to relocate in the field and over-exploitation have been the primary considerations.

For convenience of reference, Bentham and Hooker's system of classification is broadly followed and the genera and species under each family are arranged alphabetically.

ENUMERATION

PENINSULAR INDIA (by E. Vajravelu P. Daniel)

RANUNCULACEAE

Clematis bourdillonii Dunn

Distrib.: Travancore, Kerala. Endemic.

C. theobromina Dunn

Distrib.: Coonoor and Naduvattam, Nilagiri, Tamil Nadu.

Thalictrum dalzellii Hook.

Distrib.: Bababudan hills, Karnataka.

DILLENACEAE

Dillenia retusa Thunb.

Distrib.: Bolampatti and Anamalai hills, Coimbatore Dt., Tamil Nadu; warmer parts of Sri Lanka.

ANNONACEAE

Alphonsea zeylanica Hook. f. & Thoms.

Distrib.: Courtallum, Tirunelveli Dt. Tamil Nadu.

Desmos viridiflorus (Bedd.) Safford

Distrib.: Aholayar, Anamalai hills, Coimbatore Dt., Tamil Nadu.

Goniothalamus thwaitesii Hook. f. & Thoms.

Distrib.: Travancore, Kerala; Tirunelveli hills, Tamil Nadu; Sri Lanka.

G. wynaadensis Bedd.

Distrib.: Devala and Cheambadi hills in Wynaad, Nilagiri, Tamil Nadu. Endemic.

Milium nilagirica Bedd.

Distrib.: Wynaad, Nilagiri and Anamalai hills, Coimbatore Dt., Tamil Nadu. Endemic.

Orophea thomsoni Bedd.

Distrib.: Anamalai hills, Coimbatore Dt. and Tirunelveli hills, Tamil Nadu. Endemic.

O. uniflora Hook. f. & Thoms.

Distrib.: Coorg, Karnataka; Wynaad to Travancore, Kerala and Tirunelveli hills, Tamil Nadu.

Phaenthus malabaricus Bedd.

Distrib.: Wynaad and Tambracherry Ghat, Kerala. Endemic.

Polyalthia rufescens Hook. f. & Thoms.

Distrib.: Cochin and Travancore, Kerala.

Popowia beddomeana Hook. f. & Thoms.

Distrib.: Travancore, Kerala; Tirunelveli hills, Tamil Nadu. Endemic.

Segeraea grandiflora Dunn

Distrib.: Travancore, Kerala. Endemic.

S. laurifolia (Grah.) Blatt.

Distrib.: Malabar and Travancore, Kerala; Anamalai hills, Coimbatore Dt., Tirunelveli hills, Tamil Nadu; Concan, Karnataka.

Uvaria eucinta Bedd. ex Dunn

Distrib.: Ganjam hills, Orissa. Endemic.

U. macropoda Hook. f. & Thoms.

Distrib.: Ganjam hills, Orissa, South Arcot Dt., Tamil Nadu; and Sri Lanka.

Xylopia parvifolia Hook. f. & Thoms.

Distrib.: Travancore, Kerala; Sri Lanka.

MENISPERMACEAE

Coscinium fenestratum (Gaertn.) Colebr.

Distrib.: Nilagiri, Tamil Nadu; Travancore, Kerala and Sri Lanka.

Cyclea fissicalyx Dunn ex Gamble

Distrib.: Wynnad in Malabar, Kerala. Endemic.

CAPPARACEAE

Capparis fusifera Dunn

Distrib.: Tirunelveli hills, Tamil Nadu; Travancore, Kerala. Endemic.

C. rotundifolia Rottl.

Distrib.: Nellore, Andhra Pradesh; Point Calimere, Thanjavur, Tamil Nadu; Concan, Karnataka; Sri Lanka.

VIOLACEAE

Hybanthus travancoricus (Bedd.) Melch.

Distrib.: Tirunelveli hills, Tamil Nadu; Travancore, Kerala. Endemic.

BIXACEAE

Asteriastigma macrocarpa Bedd.

Distrib.: Travancore, Kerala. Endemic.

CARYOPHYLLACEAE

Arenaria neelgerrensis Wight & Arn.

Distrib.: Nilagiri, Tamil Nadu; Jammu to Kashmir.

ELATINACEAE

Elatine ambigua Wight

Distrib.: Madras, Tamil Nadu, Specimens: Nil.

HYPERICACEAE

Cratoxylon polyanthum Korth.

Distrib.: Vizakapatanam, Andhra Pradesh.

Hypericum humifusum L.

Distrib.: Nilagiri, Tamil Nadu.

H. japonicum Thunb. var. **major** Fyson

Distrib.: Nilagiri, Tamil Nadu. Endemic. Specimens: Nil.

CLUSIACEAE (GUTTIFERAE)

Calophyllum trapezifolium Thw.

Distrib.: Travancore hills, Kerala; Tirunelveli hills, Tamil Nadu.

Garcinia imberti Bourd.

Distrib.: South Travancore hills, Kerala. Endemic.

Specimens: Nil.

G. indica Chois.

Distrib.: Coorg, South Canara, Karnataka; Wynaad, Kerala.

G. talbotii Raiz. ex Sant.

Distrib.: South Canara, Karnataka; Coimbatore, Tamil Nadu.

Poeciloneuron pauciflorum Bedd.

Distrib.: Travancore hills, Kerala; Tirunelveli hills, Tamil Nadu.

DIPTEROCARPACEAE

Hopea erosa (Bedd.) van Slooten

Distrib.: Tirunelveli Ghat, Tamil Nadu. Endemic.

H. jacobi C.E.C. Fischer

Distrib.: Coorg, Karnataka. Endemic.

Vateria macrocarpa B. L. Gupta

Distrib.: Muthukulam, Bolampatti Range, Coimbatore Dt., Tamil Nadu.

MALVACEAE

Abutilon ramosum Guill. & Perr.

Distrib.: Cochin, Kerala; Concan, Karnataka.

Decaschistia rufa Craib

Distrib.: Tiruvallur, Kambakkam hills, Chengalpattu Dt., Tamil Nadu.

Specimens: Nil.

D. triloba Wight

Distrib.: South Canara, Mysore, Karnataka.

STERCULIACEAE

Eriolaena lushingtonii Dunn

Distrib.: Kurnool hills, Andhra Pradesh.

Pterospermum reticulatum Wight & Arn.

Distrib.: Travancore hills, Kerala.

Sterculia populnifolia Roxb.

Distrib.: Deccan hills, Eastern Ghats.

TILIACEAE

Grewia heterotricha Mast.

Distrib.: South Canara and Coorg, Karnataka; Coimbatore and Nilagiri, Tamil Nadu.

ELAEOCARPACEAE

Elaeocarpus amoenus Thw.

Distrib.: Southern Provinces of Western Peninsular India and Sri Lanka.

MALPIGHIACEAE

Aspidopteris canarensis Dalz.

Distrib.: Karnataka; Malabar, Kerala; Tirunelveli, Tamil Nadu.

BALSAMINACEAE

Hydrocera triflora Wight & Arn.

Distrib.: Carnatic, Tamil Nadu.

Impatiens acaulis Arn.

Distrib.: Nilagiri, Tamil Nadu; Malabar, Kerala and Concan, Karnataka.

- I. aliciae** C.E.C. Fischer
Distrib.: Travancore, Kerala. Endemic. Specimens: Nil.
- I. anaimudica** C.E.C. Fischer
Distrib.: Anaimudi, Kerala. Endemic. Specimens: Nil.
- I. barberi** Hook. f.
Distrib.: Cadamany, Karnataka.
- I. cochinica** Hook. f.
Distrib.: Kavalay in Cochin, Kerala. Endemic.
- I. coelotropis** C.E.C. Fischer
Distrib.: Anaimudi, Kerala. Endemic.
- I. concinna** Hook. f.
Distrib.: Malabar, Kerala.
- I. crenata** Bedd.
Distrib.: Anamalai hills, Coimbatore Dt., Tamil Nadu. Endemic.
- I. dassysperma** Wight
Distrib.: Mysore hills, Karnataka; Courtallum, Tirunelveli Dt., Tamil Nadu.
- I. dendricola** C.E.C. Fischer
Distrib.: Thandiadumolu, Coorg, Karnataka. Endemic.
- I. johnii** Barnes
Distrib.: Kalaar valley, Idikki Dt., Kerala. Endemic.
- I. laticornis** C.E.C. Fischer
Distrib.: Kundha, Nilagiri, Tamil Nadu, Endemic.
- I. lawii** Hook. f. et Thoms.
Distrib.: Bababudan Hills to Malabar, Kerala.
- I. leptura** Hook. f.
Distrib.: Travancore, Kerala.
- I. lucida** Heyne
Distrib.: South Canara, Karnataka to Travancore, Kerala.
- I. macrocarpa** Hook. f.
Distrib.: Travancore hills, Kerala. Endemic.
- I. munnarensis** Barnes
Distrib.: Munnar, Idikki, Kerala. Endemic.

I. munronii Wight

Distrib.: Sispara, Niligiri, Tamil Nadu.

I. nataliae Hook. f.

Distrib.: Kumsi in Shimoga Dt., Karnataka.

I. neo-barnesii C.E.C. Fischer

Distrib.: Kundha, Nilagiri, Tamil Nadu. Endemic.

I. nilagirica C.E.C. Fischer

Distrib.: Kundha, Nilagiri, Tamil Nadu. Endemic.

I. pallidiflora Hook. f.

Distrib.: Devicolam, Idikki, Kerala. Endemic.

I. pandata Barnes

Distrib.: Anaimudi Slopes, Kerala. Endemic.

I. platyadena C.E.C. Fischer

Distrib.: Anaimudi, Kerala. Endemic.

I. rivulicola Hook. f.

Distrib.: Puraia Valley, Travancore, Kerala. Endemic.

I. setosa Hook. f.

Distrib.: Agamalai near Palghat Cherry.

I. stocksii Hook. f.

Distrib.: Thandiadamolu, Brahmagiri in Coorg, Karnataka. Endemic.

I. verucunda Hook. f.

Distrib.: Periakanal and Devicolam, Kerala.

I. viridiflora Wight

Distrib.: Sivagiri hills, Tirunelveli Dt., Tamil Nadu. Endemic.

I. wightiana Bedd.

Distrib.: Anamalai hills, Tamil Nadu. Endemic.

RUTACEAE

Atalantia missionis (Wight) Oliver

Distrib.: Chengalpettu, Nilagiri, Anamalai hills, Coimbatore Dt., Tamil Nadu; Cuddapah, Andhra Pradesh; Quilon, Kerala.

BURSERACEAE

Boswellia ovalifoliolata Balak. & Henry

Distrib.: Nallamalai hills, Kurnool and Tirupathi hills, Chittoor Dt., Andhra Pradesh.

MELIACEAE

Aglaia barberi Gamble

Distrib.: Anamalai hills, Coimbatore Dt. and Tirunelveli hills, Tamil Nadu; Travancore, Kerala.

A. canarensis Gamble

Distrib.: South Canara, Karnataka. Endemic.

A. maiae Bourd.

Distrib.: Travancore hills, Kerala. Endemic.
Specimens: Nil.

Dysoxylon beddomei Hiern

Distrib.: Peermade and Cardomom hills, Kerala.

D. ficiforme (Wight) Gamble

Distrib.: Koni and Ranni valleys, Kerala. Endemic.

OLACACEAE

Anacolosa densiflora Bedd.

Distrib.: Anamalai hills, Coimbatore Dt., Tamil Nadu; Travancore hills, Kerala. Endemic.

Olax nana Wall. ex Benth.

Distrib.: Vizakapatanam, Andhra Pradesh and North-western India.

O. zeylanica L.

Distrib.: Peninsular India; Sri Lanka.

AQUIFOLIACEAE

Ilex gardneriana Wight

Distrib.: Sispara, Nilagiri, Tamil Nadu. Endemic.

CELASTRACEAE

Euonymus angulatus Wight

Distrib.: Sispara, Nilagiri and Bolampatii hills, Coimbatore Dt., Tamil Nadu; Coorg, Karnataka.

E. paniculatus Wight ex Laws.

Distrib.: Sivagiri hills, Tirunelveli Dt., Tamil Nadu. Endemic.

E. serratifolius Bedd.

Distrib.: Wynaad, Carcoor ghat—Malabar, Travancore hills, Kerala; Nilagiri, Tamil Nadu.

Microtropis deniflora Wight

Distrib.: Western slopes of Nilagiri, Tamil Nadu. Endemic.

HIPPOCRATEACEAE

Loeseneriella bourdillonii (Gamble) Raju

Distrib.: Colatoorpolay (Kolathupuzha), Travancore, Kerala.

Salacia beddomei Gamble

Distrib.: Anamalai hills, Coimbatore Dt., Tamil Nadu.

S. macrosperma Wight

Distrib.: Wynaad, Nilagiri, Tamil Nadu; Concan, Karnataka.

S. malabarica Gamble

Distrib.: S. Canara-Travancore. Rare.

RHAMNACEAE

Zizyphus horrida Roth

Distrib.: Kurnool, Andhra Pradesh; Mysore, Karnataka.

VITACEAE

Ampelocissus arnottiana Planch.

Distrib.: South Canara, Karnataka to Tirunelveli in Tamil Nadu.

A. eriocladus (Wight & Arn.) Planch.

Distrib.: Tirunelveli hills, Tamil Nadu.

Cayratia roxburghii (Wight & Arn.) Gagnep.

Distrib.: Courtallum, Tirunelveli hills, Tamil Nadu. Endemic.

Leea aquata L.

Distrib.: Ganjam forests, Orissa.

L. cinera Laws.

Distrib.: Palghat Cherry, Malabar, Kerala.

L. venkobarrowii Gamble

Distrib.: Anamalai hills, Coimbatore Dt., Tamil Nadu; Travancore, Kerala.

SABIACEAE

Sabia malabarica Bedd.

Distrib.: Anamalai hills, Coimbatore Dt., Tamil Nadu; Palghat, Kerala.

ANACARDIACEAE

Buchanania barberi Gamble

Distrib.: Travancore, Kerala. Endemic.

B. lanceolata Wight

Distrib.: Quilon, Travancore, Kerala. Endemic.

Nothopegia aureo-fulva Bedd. ex Hook. f.

Distrib.: Tirunelveli hills, Tamil Nadu. Endemic.

N. colebrookiana (Wight) B1.

Distrib.: Tirunelveli hills, Nilagiri hills, Tamil Nadu.

CONNARACEAE

Ellipanthus neglectus Gamble

Distrib.: Travancore hills, Kerala; Tirunelveli hills, Tamil Nadu. Endemic.

FABACEAE (PAPILIONACEAE)

Cajanus sericus (Benth.) van der Maesen

Distrib.: Vizakapatanam hills, Andhra Pradesh; Concan, Karnataka.

Crotalaria bidiei Gamble

Distrib.: Nilagiri-Wynaad hill, Tamil Nadu.

C. bourneae Fyson

Distrib.: Palani hills, Madurai Dt. and Nilagiri hills, Tamil Nadu. Endemic.

C. clarkei Gamble

Distrib.: Nilagiri, Palani and Tirunelveli hills, Tamil Nadu. Endemic.

C. clavata Wight & Arn.

Distrib.: Coimbatore south wards, Tamil Nadu.

C. conferta Fyson

Distrib.: Palani hills, Madurai Dt., Tamil Nadu. Endemic.

C. digitata Hook.

Distrib.: Kolli hills, Salem Dt. and Palani hills, Madurai Dt., Tamil Nadu.

C. filipes Benth.

Distrib.: South Canara, Karnataka.

C. fysonii Dunn var. **glabra** Gamble

Distrib.: Palani hills, Madurai Dt., Tamil Nadu. Endemic.

C. globosa Wight & Arn.

Distrib.: Courtallum hills, Tirunelveli Dt. and Dindugal hills, Madurai Dt., Tamil Nadu.

C. longipes Wight & Arn.

Distrib.: Kolli hills, Salem Dt. and Nilagiri hills, Tamil Nadu.

C. lutescens Dalz.

Distrib.: South Canara, Karnataka. Endemic.

C. pedicularis Grah. ex Wight & Arn.

Distrib.: Anamalai hills, Coimbatore Dt. and Nilagiri hills, Tamil Nadu; Travancore, Kerala.

C. priestleyoides Benth. ex Baker

Distrib.: Anamalai hills, Coimbatore Dt. and Nilagiri hills, Tamil Nadu; Bababudan hills, Karnataka.

C. rigida Heyne ex Roth.

Distrib.: Krishna, Andhra Pradesh to Nagapatanam, Coimbatore to Tirunelveli, Tamil Nadu.

C. sandoorensis Bedd. ex Gamble

Distrib.: Sandur hills, Bellary Dt., Karnataka. Endemic.

Desmodium wightii Grah. ex Wight & Arn.

Distrib.: Nilagiri and Palani hills, Tamil Nadu.

D. wynaadense Bedd. ex Gamble

Distrib.: Anamalai and Nilagiri hills, Tamil Nadu; Travancore hills, Kerala.

Dolichos ciliatus Klein

Distrib.: East Coast, Tamil Nadu.

Indigofera constricta (Thw.) Trimen

Distrib.: Cochin, Kerala; Nikund Ghat, Karnataka; Sri Lanka.

Rhynchosia beddomei Baker

Distrib.: Bellary hills, Karnataka; Cuddapah, Andhra Pradesh.

R. velutina Wight & Arn.

Distrib.: Nilagiri, Thanjavur and Tirunelveli in Tamil Nadu.

Sesbania paludosa (Roxb.) Prain

Distrib.: Travancore, Kerala.

Smithia venkobarrowii Gamble

Distrib.: Peermade, Travancore hills, Kerala. Endemic.

Tephrosia calophylla Bedd.

Distrib.: Coimbatore hills, Nilagiri, Tamil Nadu. Endemic.

T. pentaphylla (Roxb.) Sweet

Distrib.: Bellary Dt., Karnataka.

T. senticosa (L.) Pers.

Distrib.: Horsleykonda hills, Cuddapah, Andhra Pradesh; Kottayam, Kerala.

CAESALPINIACEAE

Cynometra beddomei Prain

Distrib.: Wynaad, Kerala.

C. bourdillonii Gamble

Distrib.: Parapar river, South Travancore, Kerala. Endemic.

C. travancorica Bedd.

Distrib.: Tirunelvili hills, Tamil Nadu; Travancore hills, Kerala.

Humboldtia bourdillonii Prain

Distrib.: Peermade Ghat, Travancore, Kerala.

H. decurrens Bedd. ex Oliver

Distrib.: Ponmudi, Travancore, Kerala.

H. laurifolia Vahl

Distrib.: Malabar, Kerala.

H. unijuga Bedd.

Distrib.: Tirunelveli hills, Tamil Nadu; South Travancore hills, Kerala.

MIMOSACEAE

Acacia campbellii Arn.

Distrib.: Godavary to Nellore, Guddapah, Andhra Pradesh.

A. hohenackeri Craib

Distrib.: Kundha, Coonoor hills, Nilagiri Dt., Tamil Nadu.

A. wightii Baker

Distrib.: Travancore, Kerala; Tirunelveli hills, Tamil Nadu.

Albizia thomsoni Brandis

Distrib.: Cuddapah, Andhra Pradesh; Ganjam forest, Orissa; Coimbatore, Tamil Nadu.

Inga cynometroides (Bedd.) Baker

Distrib.: South Travancore hills, Kerala.

ROSACEAE

Rubus fockei Gandhi

Distrib.: Coimbatore and Nilagiri hills, Tamil Nadu; Attapadi hills, Kerala; Bababudan hills, Karnataka.

R. wightii Gamble

Distrib.: Sivagiri hills, Tirunelveli Dt., Tamil Nadu.

Specimens: Nil.

Parinari indicum Bedd.

Distrib.: Nilagiri hills, Tamil Nadu.

P. travancoricum Bedd.

Distrib.: Courtallum, Tirunelveli Dt., Tamil Nadu; Travancore, Kerala. Endemic.

CRASSULACEAE

Kalanchoe olivacea Dalz. & Gibs.

Distrib.: Attakatti and Kadamparai in Anamalai hills, Coimbatore Dt., Tamil Nadu.

MYRTACEAE

Eugenia cotinifolia Jacq. ssp. **codyensis** (Munro ex Wight) Ashton

Distrib.: Coorg, South Canara, Karnataka; Nilagiri hills, Tamil Nadu; Travancore, Kerala.

E. discifera Gamble

Distrib.: Travancore hills, Kerala. Endemic.

E. jossinia Duthie

Distrib.: Sivagiri and Courtallum hills, Tirunelveli Dt., Tamil Nadu.

E. singampattiana Bedd.

Distrib.: Singampatti hills, Tirunelveli Dt., Tamil Nadu. Endemic.

Jambosa beddomei (Duthie) Gamble

Distrib.: Trichnagudi, South Tirunelveli, Tamil Nadu. Endemic.

J. bourdillonii Gamble

Distrib.: Travancore hills, Kerala. Endemic.

J. courtallensis Gamble

Distrib.: Courtallum hills, Tirunelveli Dt., Tamil Nadu. Endemic.

J. rama-varma (Bourd.) Gamble

Distrib.: Travancore hills, Kerala; Tirunelveli hills, Tamil Nadu. Endemic.

Meteoromyrtus wynaadensis (Bedd.) Gamble

Distrib.: Devala, South Wynaad, Nilagiri, Tamil Nadu.

Syzygium benthamianum (Wight ex Duthie) Gamble

Distrib.: Sispara, Nilagiri hills, Tamil Nadu.

S. chavaran (Bourd.) Gamble

Distrib.: North Travancore, Kerala. Endemic.

S. myhendrae (Bedd. ex Brandis) Gamble

Distrib.: Travancore hills, Kerala; Tirunelveli hills. Tamil Nadu.

S. occidentalis (Bourd.) Gandhi

Distrib.: Periyar river bank, Idikki Dt., Kerala.

S. palghatense Gamble

Distrib.: Palghat hills, Kerala. Endemic.

S. stocksii (Duthie) Gamble

Distrib.: Wynaad hills, Kerala & S. Canara.

S. travancoricum Gamble

Distrib.: Travancore, Kerala. Endemic.

MELASTOMATACEAE

Kendrickia walkeri Hook. f.

Distrib.: Anamalai hills, Coimbatore Dt., Tamil Nadu; Sri Lanka.

Memecylon flavescens Gamble

Distrib.: Nilagiri hills, Tamil Nadu.

M. madgolense Gamble

Distrib.: Madgol hills, Vizakapatanam Dt., Specimens: Nil.

M. sisparensense Gamble

Distrib.: Nilagiri hills, Tamil Nadu. Endemic.

M. wightiana Triana

Distrib.: Malabar, Travancore coast, Kerala.

Osbeckia aspera (L.) Bl.

Distrib.: Travancore coast, Kerala.

O. lawsoni Gamble

Distrib.: Travancore hills, Kerala. Endemic.

O. stellata Ham. ex Ker-Gawl. var. **hispidissima** (Wight) Hansen

Distrib.: Ganjam hills, Orissa; Madgol hills, Vizakapatanam Dt., Andhra Pradesh; Wostara, Karnataka.

O. travancorica Bedd. ex Gamble

Distrib.: Lower hills of Travancore, Kerala.

Sonerila barnesii C. E. C. Fischer

Distrib.: Nadugani, Tirunelveli hills, Tamil Nadu.

S. elegans Wight

Distrib.: Nilagiri hills, Tamil Nadu. Endemic.

S. nemakadensis C. E. C. Fischer

Distrib.: Travancore, Kerala.

S. pulneyensis Gamble

Distrib.: Palani hills, Madurai Dt., Tamil Nadu. Endemic.

LYTHRACEAE

Lagerstroemia rottleri Cl.

Distrib.: South India? Specimens: Nil.

L. thomsonii Koehne

Distrib.: Mysore and Carnatic. Specimens: Nil.

Rotala occultiflora Koehne

Distrib.: Malabar coast, Kerala.

CUCURBITACEAE

Carollocarpus gracillipes (Naud.) Cogn.

Distrib.: Carnatic near Pondicherry.

Melothria amplexicaulis (Law.) Cogn.

Distrib.: Chengalpattu, Coimbatore, Madurai, Tamil Nadu.

Momordica subangulata Bl.

Distrib.: South Canara in Karnataka to Wynaad in Kerala.

Luffa umbellata (Klein) Roem.

Distrib.: Travancore coast, Kerala.

Trichosanthes lepiniana (Naud.) Cogn.

Distrib.: Nilagiri hills, Tamil Nadu; Pondicherry.

T. perrottetiana Cogn.

Distrib.: Carnatic at Pondicherry.

T. villosula Cogn.

Distrib.: Nilagiri hills, Tamil Nadu.

BEGONIACEAE

Begonia aliciae C. E. C. Fischer

Distrib.: Travancore hills, Kerala.

B. canarana Miq.

Distrib.: From South Canara, Karnataka to Malabar, Kerala.

B. cordifolia (Wight) Thw.

Distrib.: Malabar, Kerala to Tirunelveli hills, Tamil Nadu.

B. subpeltata Wight

Distrib.: Malabar, Kerala.

B. trichocarpa Dalz.

Distrib.: Bababudan hills, Concan, Karnataka.

APIACEAE (UMBELLIFERAE)

Heracleum aquilegifolium Cl.

Distrib.: Anamalai hills, Coimbatore Dt., Tamil Nadu; Concan, Karnataka.

H. ceylanicum Gardn.

Distrib.: Palani hills, Madurai Dt., Tamil Nadu; Sri Lanka.

Peucedanum anamallayense Cl.

Distrib.: Anamalai hills, Coimbatore Dt., Tamil Nadu. Endemic.

Pimpinella pulneyensis Gamble

Distrib.: Palani hills, Madurai Dt., Tamil Nadu. Endemic.

Schultzia benthami Cl.

Distrib.: Canara coast, Karnataka.

ARALIACEAE

Schefflera bourdillonii Gamble

Distrib.: Travancore hills, Kerala. Endemic.

RUBIACEAE

Coffea crassifolia Gamble

Distrib.: Anamalai hills, Tamil Nadu; Travancore hills, Kerala. Endemic.

Hedyotis anamalayana (Gamble) Rolla Rao & Hemadri

Distrib.: Anamalai hills, Tamil Nadu. Endemic.

H. barberi (Gamble) Henry & Subr.

Distrib.: Tirunelveli hills, Tamil Nadu. Endemic.

H. beddomei Hook. f.

Distrib.: Palghat hills, Kerala. Endemic.

H. bourdillonii (Gamble) Rolla Rao & Hemadri

Distrib.: Hills of Travancore, Kerala. Endemic.

H. ramarowii (Gamble) Rolla Rao & Hemadri

Distrib.: Chimunjee and Ponmudi hills, Travancore, Kerala. Endemic.

H. shuteri (Hook. f.) Rolla Rao & Hemadri

Distrib.: East coast near Madras, Tamil Nadu. Endemic.

H. stocksii (Hook. f. & Thoms.) Rolla Rao & Hemadri

Distrib.: Bababudan hills, Mysore, Karnataka. Endemic.

H. travancorica Bedd.

Distrib.: Travancore hills, Kerala; Tirunelveli hills, Tamil Nadu. Endemic.

H. villostipulata (Gamble) Rolla Rao & Hemadri

Distrib.: Travancore hills, Kerala. Endemic.

H. wynaadensis (Gamble) Rolla Rao & Hemadri

Distrib.: Chambra peak forests, Wynaad. Endemic.

Ixora johnsonii Hook. f.

Distrib.: Near Wennamalai, Cochin, Ernakulam Dist., Travancore, Kerala. Endemic.

I. lawsoni Gamble

Distrib.: Mannanthody, Kerala; Coorg, Karnataka.

I. saulierei Gamble

Distrib.: Palani hills, Tamil Nadu. Endemic.

I. thwaitesii Hook. f.

Distrib.: Forests of Malabar, Kerala and Sri Lanka.

Knoxia linearis Gamble

Distrib.: Mahendragiri hills, Tamil Nadu. Endemic.

K. zeylanica L.

Distrib.: Wynaad, Kerala and Sri Lanka.

Lasianthus blumeanus Wight

Distrib.: Courtallum hills, Tirunelveli Dist., Tamil Nadu.

L. capitulatus Wight

Distrib.: Bruhmagiri hills, Karnataka; Atamalai hills, Coimbatore Dist., Nilagiri hills, Palani hills, Tamil Nadu.

L. ciliatus Wight

Distrib.: Nilagiri hills, Tamil Nadu. Endemic.

L. dichotomus Wight

Distrib.: Sivagiri hills, Courtallum hills, Tamil Nadu. Endemic.

L. oblongifolius Bedd.

Distrib.: Papanasam hills, Tamil Nadu. Endemic.

L. obovatus Bedd.

Distrib.: Athramalai hills, Travancore, Kerala.

L. truncatus Bedd.

Distrib.: Mahendragiri hills, Ganjam Dist., Orissa; Vizakapatanam, Andhra Pradesh.

Morinda reticulata Gamble

Distrib.: Travancore hills, Kerala. Endemic.

Neanotis carnosa (Dalz.) W. H. Lewis

Distrib.: Seashore at Malwan, Mangalore, South Canara, Karnataka. Endemic.

N. monosperma (Wall. ex Wight & Arn.) W. H. Lewis

Distrib.: Nilagiri hills and Palani hills, Tamil Nadu; Bababudan hills, Mysore, Karnataka. Endemic.

N. montholonii (Hook. f.) W. H. Lewis

Distrib.: From Mysore and Concan, Karnataka to Malabar, Kerala. Endemic.

N. rheedii (Wall. ex Wight & Arn.) W. H. Lewis

Distrib.: West coast and hills of South Canara and Mysore, Karnataka to Cochin, Kerala and Anamalai hills, Tamil Nadu. Endemic.

Oldenlandia albonervia (Bedd.) Gamble

Distrib.: Travancore hills, Kerala; Tirunelveli hills, Tamil Nadu. Endemic.

Ophiorrhiza barnesii C. E. C. Fischer

Distrib.: Kalaar High Range, Idikki Dist., Kerala. Endemic.

O. caudata C. E. C. Fischer

Distrib.: Kalaar High Range, Idikki Dist., Kerala. Endemic.

O. codyensis Gamble

Distrib.: Coorg, Sampaji Ghat, Karnataka. Endemic.

O. incarnata C. E. C. Fischer

Distrib.: Near Nadugani in *Pandanus* swamps, Nilagiri hills, Tamil Nadu. Endemic.

O. munnarensis C. E. C. Fischer

Distrib.: Munnar ghat-road, High Range, Idikki Dist., Kerala. Endemic.

O. pykarensis Gamble

Distrib.: Pykara falls, Nilagiri hills, Tamil Nadu. Endemic.

O. roxburghiana Wight

Distrib.: Palani hills, Periya shola, Tamil Nadu. Endemic.

Pavetta concinna Brem.

Distrib.: Attrimalai hills, Tirunelveli Dist., Tamil Nadu. Endemic.

P. hohenackeri Brem.

Distrib.: Sispara hills, Nilagiri, Tamil Nadu. Endemic.

P. nemoralis Brem.

Distrib.: Kavalai, Cochin, Kerala.

Plectronia ficiformis (Hook. f.) Gamble

Distrib.: Palani hills, Sivagiri hills, Tamil Nadu; Mysore, Karnataka.

P. pergracilis (Bourd.) Gamble

Distrib.: Colatoorpolay, Travancore, Kerala. Endemic.

Psychotria barberi Gamble

Distrib.: Anamalai hills, Tamil Nadu; Travancore hills, Kerala. Endemic.

P. globicephala Gamble

Distrib.: Courtallum hills, Tirunelveli Dist., Tamil Nadu. Endemic.

Saprosma fragrans Bedd.

Distrib.: Nilagiri hills, Tirunelveli hills, Tamil Nadu; Malabar, Kerala. Endemic.

Wendlandia angustifolia Wight

Distrib.: Cuddapah forests, Andhra Pradesh; Courtallum and Kannikatti hills, Tamil Nadu. Endemic.

W. lawii Hook. f.

Distrib.: Bababudan hills, Mysore, Karnataka. Endemic.

VALERIANACEAE

Valeriana beddomei Cl.

Distrib.: Anamalai hills, Palani hills, Tamil Nadu. Endemic.

ASTERACEAE (COMPOSITAE)

Ageratum houstonianum Mill.

Distrib.: Nilagiri hills, Palani hills, Tamil Nadu. Endemic.

Anaphalis barnesii C. E. C. Fischer

Distrib.: High Range, Idikki Dist., Kerala. Endemic.

A. beddomei Hook. f.

Distrib.: Palani hills, Tamil Nadu. Endemic.

Centratherum courtallense (Wight) Benth.

Distrib.: Anamalai hills, Courtallum hills, Tamil Nadu; Travancore hills, Kerala.

C. mayurii C. E. C. Fischer

Distrib.: Kemmangundi hills, Mysore, Karnataka.

C. ritchiei Hook. f.

Distrib.: Canara and Concan, Karnataka. Endemic.

C. tenue Cl.

Distrib.: Concan, Karnataka. Endemic.

Helichrysum perlanigerum Gamble

Distrib.: Anamalai hills, Tamil Nadu. Endemic.

Myriactis wightii DC. var. **bellidioides** Hook. f.

Distrib.: Sispara, Nilagiri hills, Tamil Nadu. Endemic.

Notonia shevaroyensis Fyson

Distrib.: Shevaroy hills, Salem Dist., Tamil Nadu. Endemic.

Senecio dalzellii Cl.

Distrib.: Bababudan hills, Mysore, Karnataka. Endemic.

S. kundaicus C. E. C. Fischer

Distrib.: Kundah, Nilagiri hills, Tamil Nadu. Endemic.

S. mayurii C. E. C. Fischer

Distrib.: Kemmangandi hills, Mysore, Karnataka. Endemic.

Vernonia beddomei Hook. f.

Distrib.: South Travancore, Kerala. Endemic.

V. bourdillonii Gamble

Distrib.: Travancore hills, Kerala. Endemic.

V. fysoni Calder

Distrib.: Palani hills, Tamil Nadu. Endemic.

V. heynii Bedd. ex Gamble

Distrib.: Travancore hills, Kerala. Endemic.

V. membranacea Bedd. ex S. Moore

Distrib.: Sispara, Nilagiri hills, Tamil Nadu; Attraimalai, Trivandrum Dist., Kerala.

V. multibracteata Gamble

Distrib.: Peermade, Idikki Dist., Kerala. Endemic.

V. peninsularis (Cl.) Hook. f.

Distrib.: Anamalai hills, Courtallum hills and Palani hills, Tamil Nadu.

V. pulneyensis Gamble

Distrib.: Banks of Pambar river, Kodaikanal, Madurai Dist., Tamil Nadu. Endemic.

V. recurva Bedd. ex S. Moore

Distrib.: Anamalai hills, Coimbatore Dist., Tamil Nadu. Endemic.

V. saligna DC. var. **nilghirensis** Hook. f.

Distrib.: Nilagiri hills, Tamil Nadu; Wynaad, Kerala. Endemic.

V. salvifolia Wight

Distrib.: Courtallum hills, Tamil Nadu; Peermade hills, Travancore, Kerala. Endemic.

V. shevaroyensis Gamble

Distrib.: Shevaroy hills, Salem Dist., Tamil Nadu. Endemic.

Youngia nilagiriensis Babcock

Distrib.: Sispara, Nilagiri hills, Tamil Nadu. Endemic.

CAMPANULACEAE

Cephalostigma flexuosum Hook. f. & Thoms.

Distrib.: Bababudan hills, Mysore, Karnataka; North Coimbatore hills, Tamil Nadu; Ramandrug, Bellary, Karnataka.

MYRSINACEAE

Antistrophe serratifolia (Bedd.) Hook. f.

Distrib.: Anamalai hills, Coimbatore Dist., Tamil Nadu. Endemic.

Ardisia amplexicaulis Bedd.

Distrib.: Tirrihoot hills, Wynaad, Travancore hills, Kerala. Endemic.

Embelia gardneriana Wight

Distrib.: Sispara Ghat, Nilagiri hills, Tamil Nadu. Endemic.

Rapanea striata Mez

Distrib.: Bababudan hills, Mysore, Karnataka. Endemic.

R. thwaitesii Mez

Distrib.: Palani hills, Madurai Dist., Tamil Nadu.

SAPOTACEAE

Isonandra montana (Thw.) Gamble

Distrib.: Travancore hills, Kerala.

Madhuca bourdillonii (Gamble) Raiz.

Distrib.: Ariyankavu and Shendurni Valleys, Travancore, Kerala.

EBENACEAE

Diospyros affinis Thw.

Distrib.: Tirunelveli hills, Tamil Nadu and Sri Lanka.

SYMPLOCACEAE

Symplocos anamallayana Bedd.

Distrib.: Anamalai hills, Tamil Nadu. Endemic.

S. barberi Gamble

Distrib.: Tirunelveli hills, Tamil Nadu. Endemic.

S. villosa Brand.

Distrib.: Peermade hills, Travancore, Kerala. Endemic.

OLEACEAE

Jasminum wightii Cl.

Distrib.: Bolampatty valley, Coimbatore Dist., Tamil Nadu. Endemic.

Ligustrum decaisnei Cl. var. **beddomei** Gamble

Distrib.: Kiggatnad, Coorg, Karnataka.

APOCYNACEAE

Rauvolfia beddomei Hook. f.

Distrib.: Tirunelveli hills, Tamil Nadu; Travancore hills, Kerala. Endemic.

ASCLEPIADACEAE

Brachystelma bournea Gamble

Distrib.: Eastern slopes of Palani hills, Madurai Dist., Tamil Nadu. Endemic.

Caralluma diffusa (Wight) N. E. Br.

Distrib.: Coimbatore hills, Tamil Nadu; Travancore hills, Kerala.

Ceropegia barnesii Bruce & Chatterjee

Distrib.: Nilagiri hills, Tamil Nadu; South Canara, Karnataka.

C. beddomei Hook. f.

Distrib.: Peermade hills, Cochin hills, Kerala.

C. brevicollis Hook. f.

Distrib.: Anamalai hills, Tamil Nadu; Travancore hills, Kerala.

C. intermedia Wight var. **wightii** Hook. f.

Distrib.: Palani and Tirunelveli hills, Tamil Nadu.

Frerea indica Dalz.

Distrib.: Western ghats near Pune. Endemic, Endangered due to habitat loss.

Gymnema elegans Wight & Arn.

Distrib.: Nilagiri hills, Salem hills to Tirunelveli hills, Tamil Nadu.

Oianthus beddomei Hook. f.

Distrib.: Beigoor forests, Mysore, Karnataka; Wynaad, Kerala.

Streptocaulon kleinii Wight & Arn.

Distrib.: Deccan Peninsula.

Toxocarpus beddomei Gamble

Distrib.: Palghat hills, Kerala. Endemic.

T. palghatensis Gamble

Distrib.: Palghat hills, Kerala. Endemic.

Utleria salicifolia Bedd. ex Hook. f.

Distrib.: Anamalai hills, Tamil Nadu.

LOGANIACEAE

Strychnos colubrina L.

Distrib.: Veligonda hills, Nellore, Andhra Pradesh; South Canara, Karnataka to Travancore, Kerala.

GENTIANACEAE

Exacum anamalayanum Bedd.

Distrib.: Anamalai hills, Palani hills, Tamil Nadu. Endemic.

E. courtallense Arn. var. **courtallense**

Distrib.: Tirunelveli hills, Tamil Nadu. Endemic.

Swertia beddomei Cl.

Distrib.: South Canara, Mysore, Karnataka; Sispara, Nilagiri hills, Tamil Nadu; Travancore hills, Kerala.

BORAGINACEAE

Cordia octandra A. DC.

Distrib.: Travancore hills, Kerala. Endemic.

Ehretia wightiana Wall. ex G. Don

Distrib.: Courtallum hills, Tirunelveli Dist., Tamil Nadu. Endemic.

Paracaryum coelastinum (Lindl.) Benth.

Distrib.: Bababudan hills, Mahabaleswar to Mysore, Karnataka.

P. malabaricum Cl.

Distrib.: Canara and Mysore, Karnataka. Endemic.

CONVOLVULACEAE

Convolvulus flavus Willd.

Distrib.: Hills of Coimbatore, Nilagiri and Palani, Tamil Nadu.

Merremia quinata (R. Br.) van Ooststr.

Distrib.: Coimbatore hills at Tattakarai Ghat, Tamil Nadu.

Neuropeltis racemosa Wall. ex Roxb.

Distrib.: Tambracheri Ghat, Malabar, Kerala.

SOLANACEAE

Solanum kurzii Bruce ex Prain

Distrib.: Coimbatore hills, Tamil Nadu.

SCROPHULARIACEAE

Adenosma malabaricum Hook. f.

Distrib.: Malabar coast, Kerala. Endemic.

Lindernia minima (Benth.) Mukherjee

Distrib.: Vandalur, Chegalpet, Palayankottai, Tirunelveli, Tamil Nadu.

OROBANCHACEAE

Christisonia saulieri Dunn

Distrib.: Kodaikanal hills, Madurai Dist., Tamil Nadu. Endemic.

C. subacaulis (Benth.) Gardn.

Distrib.: Courtallum, Tirunelveli hills, Tamil Nadu. Endemic.

LENTIBULARIACEAE

Utricularia baouleensis A. Chev.

Distrib.: Arcot, Madras, Madurai, Anamalai hills, Tamil Nadu.

U. lilliput Pellegrin

Distrib.: Tirunelveli hills, Tamil Nadu.

GESNERIACEAE

Didymocarpus fischeri Gamble

Distrib.: Anamalai hills, Tamil Nadu. Endemic.

D. meeboldii Sm. & Ramas.

Distrib.: Madurai hills, Tamil Nadu; Peermade Ghat, Travancore hills, Kerala.

ACANTHACEAE

Adhatoda beddomei Cl.

Distrib.: Travancore hills, Kerala. Endemic.

Andrographis beddomei Cl.

Distrib.: Lankamalai hills, Cuddapah, Nallamalai hills, Kurnool, Andhra Pradesh.

Dicliptera beddomei Cl.

Distrib.: Nallamalai hills, Kurnool, Andhra Pradesh. Endemic.

Didyplosandra andersonii (Bedd.) Brem.

Distrib.: Anamalai hills, Tamil Nadu. Endemic.

Hygrophila pinnatifida (Dalz.) Sreem.

Distrib.: Canara, Concan, Mangalore, Karnataka.

Justicia salsoloides T. Anders.

Distrib.: Carnatic and Mysore, Karnataka.

Nilgirianthus campanulatus (Wight) Brem.

Distrib.: Coorg, Karnataka. Endemic.

N. circarensis (Gamble) Brem.

Distrib.: Vizagapatnam hills, Andhra Pradesh. Endemic.

Phlebophyllum canaricum (Bedd.) Brem.

Distrib.: South Canara, Karnataka. Endemic.

P. lanatum (Nees) Brem.

Distrib.: Mysore, Karnataka; Sispara, Nilagiri hills, Tamil Nadu. Endemic.

Rungia linifolia Nees

Distrib.: Aglatti, Mysore, Concan southwards, Karnataka. Endemic.

Stenosiphoneum setosum T. Anders.

Distrib.: Mysore, Karnataka. Endemic.

Strobilanthes dupeni Bedd. ex Cl.

Distrib.: Top of Nelliampatti Ghat, Kerala; Anamalai, Tamil Nadu.

S. urceolaris Gamble

Distrib.: Nilagiri hills, Palani hills, Tamil Nadu. Endemic.

Thunbergia bicolor (Wight) Lindau

Distrib.: Nilagiri hills, Tamil Nadu. Endemic.

VERBENACEAE

Premna paucinervis (Cl.) Gamble

Distrib.: Anamalai hills, Coimbatore Dist., Tamil Nadu. Endemic.

LAMIACEAE (LABIATAE)

Acrocephalus palniensis Mukerjee

Distrib.: Upper Palani hills, Madurai Dist., Tamil Nadu. Endemic.

A. sericeus Benth.

Distrib.: Palani hills, Tirunelveli hills, Tamil Nadu.

A. suffruticosus Wight

Distrib.: Sispara, Nilagiri hills, Tirunelveli hills, Tamil Nadu.

A. wightii Hook. f.

Distrib.: Anamalai hills, Tamil Nadu. Endemic.

Dysophylla rugosa Hook. f.

Distrib.: Palayamkottai, Tirunelveli Dist., Tamil Nadu.

Leucas pubescens Benth.

Distrib.: Palani hills, Nilagiri hills, Tamil Nadu.

L. wightiana Benth.

Distrib.: Kanniyakumari, Tamil Nadu.

Plectranthus beddomei Raiz.

Distrib.: Courtallum, Tirunelveli hills, Tamil Nadu. Endemic.

P. bishopianus Gamble

Distrib.: Palani hills, Madurai Dist., Tamil Nadu.

P. bourneae Gamble

Distrib.: Coonoor, Nilagiri hills, Palani hills, Madurai Dist., Tamil Nadu.

P. deccanicus Briq.

Distrib.: Nilagiri hills, Palani hills, Tamil Nadu.

Pogostemon atropurpureus Benth.

Distrib.: Sispara Ghat, Nilagiri hills, Tamil Nadu. Endemic.

P. gardneri Hook. f.

Distrib.: Sispara, Nilagiri hills, Tamil Nadu; Wynaad, Kerala.

P. paludosus Benth.

Distrib.: Sispara, Ootacamund, Nilagiri hills, Tamil Nadu.

P. travancoricus Bedd.

Distrib.: Attraimalai, Travancore hills, Kankulam, Kerala.

Teucrium plectranthoides Gamble

Distrib.: Sengaltheri, Tirunelveli hills, Tamil Nadu. Endemic.

NYCTAGINACEAE

Boerhaavia crispa Heyne ex Hook. f.

Distrib.: Deccan Peninsula.

AMARANTHACEAE

Aerva wightii Hook. f.

Distrib.: Courtallum, Naterikal, Tirunelveli hills, Tamil Nadu. Endemic.

Psilostachys sericea (Koen. ex Roxb.) Hook. f.

Distrib.: Nellore, Andhra Pradesh; Coromandel Coast and Gujarat.

PODOSTEMONACEAE

Hydrobryopsis sessilis (Willis) Engl.

Distrib.: Beltangudi, South Canara, Karnataka.

Podostemon subulatus Gard.

Distrib.: Anamalai hills, Tamil Nadu and Sri Lanka.

Zeylanidium johnsonii (Wight) Engl.

Distrib.: Mountain streams, Malabar, Kerala.

ARISTOLOCHIACEAE

Apama barberi Gamble

Distrib.: Kannikatti, Tirunelveli hills, Tamil Nadu. Endemic.

PIPERACEAE

Piper barberi Gamble

Distrib.: Tirunelveli hills, Tamil Nadu. Endemic.

P. haprium Buch.—Ham. ex Hook. f.

Distrib.: Tirunelveli hills, Tamil Nadu; Travancore hills, Kerala.

MYRISTICACEAE

Myristica fatua Houtt. var. **magnifica** (Bedd.) Sinclair

Distrib.: Canara, Karnataka; Colatoorpolay, Travancore hills, Kerala; Tirunelveli hills, Tamil Nadu.

M. malabarica Lam.

Distrib.: South Canara, Karnataka; North Malabar, Kerala.

LAURACEAE

Actinodaphne bourneae Gamble

Distrib.: Kodaikanal, Palani hills, Tamil Nadu. Endemic.

A. campanulata Hook. f. var. **campanulata**

Distrib.: Tirunelveli hills, Tamil Nadu.

A. campanulata Hook. f. var. **obtusa** Gamble

Distrib.: Travancore, Kerala. Endemic.

A. lanata Meissn.

Distrib.: Nilagiri hills, Tamil Nadu.

A. salicina Meissn.

Distrib.: Sispara, Nilagiri hills, Tamil Nadu.

Alseodaphne semecarpifolia Nees var. **angustifolia** Meissn.

Distrib.: Lower Palani hills, Tamil Nadu.

Beilschmedia bourdilloni Brandis

Distrib.: South Canara, Karnataka to Travancore, Kerala.

B. wightii (Nees) Benth. ex Hook. f.

Distrib.: Anamalai hills, Palani hills, Tamil Nadu; Travancore hills, Kerala.

Cinnamomum perrottetii Meissn.

Distrib.: Nilagiri hills, Tamil Nadu. Endemic.

C. riparium Gamble

Distrib.: Anamalai hills, Tamil Nadu; Coorg, Karnataka; Travancore hills, Kerala.

C. travancoricum Gamble

Distrib.: Chimunji forests, Travancore, Kerala. Endemic.

Cryptocarya stocksii Meissn.

Distrib.: Anamalai hills, Tamil Nadu; Bababudan hills, Karnataka; Travancore hills, Kerala.

Litsea mysorensis Gamble

Distrib.: Bisli Ghat, Aglatti, Karnataka; Wynaad, Kerala. Endemic.

L. travancorica Gamble

Distrib.: Travancore hills, Kerala. Endemic.

PROTEACEAE

Helicia nilagirica Bedd.

Distrib.: Devala, Southeast Wynaad, Nilagiri, Tamil Nadu; Walaghat, Kerala. Endemic.

H. travancorica Bedd. ex Hook. f.

Distrib.: Tirunelveli hills, Tamil Nadu; Travancore hills, Kerala. Endemic.

THYMELIACEAE

Gyrinops walla Gaertn.

Distrib.: Tirunelveli hills, Tamil Nadu and Sri Lanka.

EUPHORBIACEAE

Blachia reflexa Benth.

Distrib.: Coorg, Karnataka; Nilagiri hills, Tamil Nadu; Travancore hills, Kerala.

Chamaesyce linearifolia (Roth) Sojak

Distrib.: Cumbum, Kurnool Dist., Andhra Pradesh.

Corton scabiosus Bedd.

Distrib.: Cuddapah hills, Nallamalai hills, Kurnool, Andhra Pradesh. Endemic.

Cyclostemon malabaricus Bedd.

Distrib.: Travancore hills, Kerala; Tirunelveli hills, Tamil Nadu. Endemic.

Fahrenheitia integrifolia (Airy Shaw) Airy Shaw

Distrib.: Anamalai hills, Tamil Nadu; Attapadi hills, Travancore hills, Kerala.

Glochidion bourdillonii Gamble

Distrib.: Travancore hills, Kerala.

G. pauciflorum Gamble

Distrib.: Hills of Nilagiri and Palani, Tamil Nadu.

Lasiococca comberi Haines

Distrib.: Vizakapatanam hills, Andhra Pradesh.

Macaranga flexuosa Wight

Distrib.: Courtallum, Tirunelveli hills, Tamil Nadu.

Meineckia longipes (Wight) Webster

Distrib.: Anamalai hills, Tirunelveli hills, Tamil Nadu; Quilon, Malabar, Kerala.

Micrococca wightii (Wall. ex Hook. f.) Prain var. **hirsutum** (Hook. f.) Prain

Distrib.: Tirunelveli hills, Tamil Nadu. Endemic.

Phyllanthus narayanaswamii Gamble

Distrib.: Rumpa hills, Godavari, Andhra Pradesh. Endemic.

Reidia beddomei Gamble

Distrib.: Tirunelveli Dist., Tamil Nadu; Travancore hills, Kerala. Endemic.

R. gageana Gamble

Distrib.: Travancore hills, Kerala; Tirunelveli hills, Tamil Nadu. Endemic.

R. megacarpa Gamble

Distrib.: Devala, Southeast Wynaad, Nilagiri, Tamil Nadu.

R. stipulacea Gamble

Distrib.: Anamalai hills, Palani hills, Tamil Nadu.

CYCADACEAE

Cycas beddomei Dyer

Distrib.: Cuddapah hills, Andhra Pradesh. Endemic.

HYDROCHARITACEAE

Halophila stipulacea (Forsk.) Aschers.

Distrib.: East Coast, Tamil Nadu.

BURMANNIACEAE

Haplothismia exanulata Airy Shaw

Distrib.: Travancore—Cochin, Kerala. Endemic.

ORCHIDACEAE

Bulbophyllum albidum (Wight) Hook. f.

Distrib.: Nilagiri hills, Tamil Nadu. Endemic.

B. fusco-purpureum Wight

Distrib.: Nilagiri hills, Tamil Nadu. Endemic.

B. mysorensis J. J. Smith

Distrib.: Mysore hills, Karnataka. Endemic.

Chrysoglossum hallbergii Blatter

Distrib.: High Wavy Mountains, Madurai, Tamil Nadu. Endemic.

Coelogyne angustifolia Wight

Distrib.: Nilagiri hills, Tamil Nadu. Endemic.

C. mossiae Rolfe

Distrib.: Nilagiri hills, Palani hills, Tamil Nadu. Endemic.

Disperis monophylla Blatter ex C. E. C. Fischer

Distrib.: High Wavy Mountains, Madurai, Tamil Nadu.

Eria albiflora Rolfe

Distrib.: Nilagiri hills, Tamil Nadu. Endemic.

Eulophia cullenii (Wight) C. E. C. Fischer

Distrib.: Anamalai hills, Palani hills, Tamil Nadu; Travancore hills, Kerala.

Habenaria barnesii Summerh. ex C. E. C. Fischer

Distrib.: Nilagiri hills, Tamil Nadu; Travancore hills, Kerala. Endemic.

H. denticulata Reich. f.

Distrib.: Nilagiri hills, Tamil Nadu. Endemic.

H. fimbriata Wight

Distrib.: Nilagiri hills, Tamil Nadu. Endemic.

H. richardiana Wight

Distrib.: Anamalai hills, Nilagiri hills, Tamil Nadu; Travancore, Kerala. Endemic.

Hetaeria ovalifolia (Wight) Benth.

Distrib.: Courtallum, Tirunelveli hills, Tamil Nadu. Endemic.

Liparis beddomei Ridley

Distrib.: Palani hills, Tamil Nadu. Endemic.

L. biloba Wight

Distrib.: Nilagiri hills, Tamil Nadu. Endemic.

L. duthiei Hook. f.

Distrib.: Nilagiri hills, Tamil Nadu. Endemic.

L. platyphylla Ridley

Distrib.: Anamalai hills, Tamil Nadu. Endemic.

Nervilia biflora (Roxb.) Schltr.

Distrib.: Malabar, Wynaad, Kerala.

Paphiopedilum druryi (Bedd.) Pfitz.

Distrib.: Travancore hills, Kerala. Endemic. Populations much depleted. Endangered.

Peristylus brachyphyllus A. Rich.

Distrib.: Bababudan hills, Karnataka; Nilagiri hills, Tamil Nadu.

P. secundus (Lindl.) Rathakrish.

Distrib.: Bababudan hills, Karnataka; Nilagiri hills, Palani hills, Tamil Nadu; Travancore hills, Kerala.

Rhynchostylis latifolia C. E. C. Fischer

Distrib.: Cadamany, Mysore, Karnataka. Endemic.

Vanilla walkeriae Wight

Distrib.: Coimbatore hills, Tamil Nadu; Travancore hills, Kerala.

V. wightiana Lindl. ex Hook. f.

Distrib.: Travancore, Kerala.

ZINGIBERACEAE

Amomum hypoleucum Thw.

Distrib.: Anamalai hills, Tamil Nadu; Sri Lanka.

A. microstephanum Baker

Distrib.: Anamalai hills, Tamil Nadu; Concan, Karnataka. Endemic.

Boesenbergia pulcherrima (Wall.) Kuntze

Distrib.: Western Ghats, Karnataka, Kerala. Endemic.

Curcuma decipiens Dalz.

Distrib.: Western Ghats. Endemic.

C. montana Rosc.

Distrib.: Circars; Concan, Karnataka.

Elettaria cardamomum (L.) Maton var. **major** (Smith) Thw.

Distrib.: Western Ghats, Tamil Nadu. Sri Lanka

Kaempferia galanga L.

Distrib.: West Coast. Endemic.

K. rotunda L.

Distrib.: Trivandrum, West Coast, Kerala. Endemic.

Zingiber cernuum Dalz.

Distrib.: Bababudan hills, Concan, Karnataka. Endemic.

MARANTACEAE

Stachyphrynium spicatum (Roxb.) K. Schum.

Distrib.: Yeddicara forests, Malabar; Concan, Karnataka.

HAEMODORACEAE

Ophiopogon intermedius Don var. **gracilipes** Hook. f.

Distrib.: Nilagiri hills, Tamil Nadu.

Peliosanthes courtallensis Wight

Distrib.: Nilagiri hills, Courtallum hills, Tamil Nadu. Endemic.

AMARYLLIDACEAE

Pancratium parvum Dalz.

Distrib.: Bababudan hills, Concan, Karnataka. Endemic.

DIOSCOREACEAE

Dioscorea belophylla Voight

Distrib.: Western Ghats. Endemic.

D. intermedia Thw.

Distrib.: Malabar, Travancore, Kerala; Sri Lanka

D. kalkapershadii Prain & Burk.

Distrib.: Shevaroy hills, Salem Dist., Tamil Nadu. Endemic.

D. oppositifolia L. var. **dukhunensis** Prain & Burk.

Distrib.: Deccan (?).

D. wightii Hook. f.

Distrib.: Travancore hills, Kerala; Courtallum, Tirunelveli hills, Tamil Nadu

LILIACEAE

Asparagus asiaticus L.

Distrib.: Bellary, Karnataka.

A. fysoni Macbr.

Distrib.: Nilagiri hills, Tamil Nadu. Endemic.

Chlorophytum glaucum Dalz.

Distrib.: Bababudan hills, Concan, Karnataka.

C. malabaricum Dalz.

Distrib.: Southern Western Ghats.

Dipcadi montanum (Dalz.) Baker var. **madrasicum** (Fischer ex Barnes) Deb & Das Gupta

Distrib.: Tamil Nadu. Endemic.

Lilium neilgherrensis Wight

Distrib.: Hills of Anamalai, Nilagiri and Tirunelveli in Tamil Nadu; Biligirirangan hills, Karnataka.

COMMELINACEAE

Ancilema ochraceum Dalz.

Distrib.: Coorg, South Canara, Karnataka; Quilon, Kerala.

Belosynopsis kewensis Hassk.

Distrib.: Mahendra hills, Travancore, Kerala. Endemic.

Commelina subulata Roth

Distrib.: Hills of Deccan.

Cyanotis burmanniana Wight

Distrib.: Malabar, Kerala.

C. vaginata Wight

Distrib.: Malabar, Kerala.

Murdannia versicolor (Dalz.) Bruck.

Distrib.: Concan, Karnataka. Endemic.

ARECACEAE

Calamus brandisii Becc. ex Becc. & Hook. f.

Distrib.: Canara, Karnataka; Courtallum hills, Tamil Nadu. Endemic.

C. thwaitesii Becc. ex Becc. & Hook. f. var. **canarana** Becc.

Distrib.: West Coast. Endemic.

Corypha umbraculifera L.

Distrib.: Malabar Coast, Kerala; Sri Lanka.

PANDANACEAE

Pandanus canaranus Warb.

Distrib.: Mangalore, Karnataka. Endemic.

ARACEAE

Alocasia montana (Roxb.) Schott

Distrib.: Northern Circars, Andhra Pradesh. Endemic.

Amorphophallus bulbifer (Roxb.) Bl.

Distrib.: Malabar hills, Kerala; Rampa hills, Andhra Pradesh; Khasia hills and Burma.

A. dubius Bl.

Distrib.: Malabar, Kerala; Sri Lanka.

A. hohenackeri Engl.

Distrib.: South Canara near Mangalore, Karnataka. Endemic.

Arisaema barnesii C. E. C. Fischer

Distrib.: Hills of Anamalai, Nilagiri, Tamil Nadu; Biligirirangan hills, Karnataka.

A. murrayi Hook. f.

Distrib.: Nilagiri hills, Tamil Nadu; Concan, Karnataka.

A. psittacus Barnes

Distrib.: Travancore hills, Kerala.

A. pulcherum N. E. Br.

Distrib.: Sispara, Nilagiri hills, Tamil Nadu. Endemic.

A. translucens C. E. C. Fischer

Distrib.: Nilagiri hills, Tamil Nadu. Endemic.

A. tuberculatum C. E. C. Fischer

Distrib.: Nilagiri hills, Tamil Nadu. Endemic.

A. tylophorum C. E. C. Fischer

Distrib.: Nilagiri hills, Tamil Nadu. Endemic.

A. wightii Schott

Distrib.: Nilagiri hills, Tamil Nadu. Endemic.

Cryptocoryne ciliata C. E. C. Fischer

Distrib.: Coromandal coast, Tamil Nadu; Mysore, Karnataka.

C. cognata Schott

Distrib.: Concan, Karnataka. Endemic.

C. consobrina Schott

Distrib.: Western Ghats.

C. wightii Schott

Distrib.: Mysore, Karnataka; Calicut, Kerala. Endemic.

Lagenandra meeboldii (Engl.) C. E. C. Fischer

Distrib.: Agalhatti, Mysore, Karnataka; Tuppanad, South Malabar, Kerala.

Pothos armatus C. E. C. Fischer

Distrib.: Tambracheri Ghat, Malabar, Karnataka. Endemic.

P. thomsonianus Schott

Distrib.: Carnatic, Karnataka; Wynaad, Travancore hills, Kerala.

Theripphonum fischeri Sivadasan

Distrib.: Central Kerala and Southwestern Tamil Nadu.

TRIURIDACEAE

Sciaphila fanthina (Champ.) Thw.

Distrib.: Travancore, Kerala; Tirunelveli hills, Tamil Nadu; Sri Lanka.

ALISMATACEAE

Weisneria triandra (Dalz.) Mich.

Distrib.: Concan, Karnataka. Endemic.

ERIOCAULACEAE

Eriocaulon dalzellii Koen.

Distrib.: South Concan, Karnataka. Endemic.

E. gamblei C. E. C. Fischer

Distrib.: Naduvattam, Nilagiri, Tamil Nadu. Endemic.

E. margaretae Fyson

Distrib.: Rudrasiri, Mysore, Karnataka. Endemic.

CYPERACEAE

Carex christii Arn. ex Boeck.

Distrib.: Nilagiri hills, Tamil Nadu. Endemic.

C. pseudo-aperta Boeck.

Distrib.: Nilagiri hills, Tamil Nadu. Endemic.

C. vicinalis Boott

Distrib.: Nilagiri hills, Tamil Nadu. Endemic.

C. wightiana Nees

Distrib.: Courtallum hills, Tamil Nadu; Travancore, Kerala. Endemic.

Fimbristylis aggregata C. E. C. Fischer

Distrib.: Anamalai hills, Tamil Nadu. Endemic.

F. arnottiana Boeck.

Distrib.: Cannanore, Kerala. Endemic.

F. contorta C. E. C. Fischer

Distrib.: Courtallum hills, Tamil Nadu. Endemic.

POACEAE (GRAMINEAE)

Agrostis schmidii (Hook. f.) Bor

Distrib.: Nilagiri hills, Tamil Nadu. Endemic.

Andropogon longipes Hack.

Distrib.: Nilagiri hills, Tamil Nadu. Endemic.

Arthraxon depressus Stapf ex C. E. C. Fischer

Distrib.: Agalatti-Mysore, Karnataka. Endemic.

A. meeboldii Stapf

Distrib.: Mangalore, Karnataka. Endemic.

Arundinaria densiflora Munro

Distrib.: Anaimudi hills, Travancore, Kerala. Endemic.

Chrysopogon velutinus (Hook. f.) Bor

Distrib.: Cuddapah Dist., Andhra Pradesh.

Dicanthium pallidum (Hook. f.) Stapf ex C. E. C. Fischer

Distrib.: Nilagiri hills, Tamil Nadu. Endemic.

Eragrotis rottleri Stapf

Distrib.: Tranquebar, Tamil Nadu. Endemic.

- Garnotia schmidii** Hook. f.
Distrib.: Nilagiri hills, Tamil Nadu. Endemic.
- Heteropogon polystachyos** (Roxb.) Schult.
Distrib.: Peninsular India. Endemic.
- H. bellariensis** (Hack.) C. E. C. Fischer
Distrib.: Gooty Fort hill, Anantpur Dist., Andhra Pradesh. Endemic.
- Isachne angladei** C. E. C. Fischer
Distrib.: High wavy mountains, Palani hills, Tamil Nadu. Endemic.
- I. deccanensis** Bor
Distrib.: Nilagiri hills, Tamil Nadu. Endemic.
- I. fischeri** Bor
Distrib.: Travancore hills, Kerala. Endemic.
- I. gracilis** C. E. Hubb.
Distrib.: Bababudan hills, Karnataka. Endemic.
- I. meeboldii** C. E. C. Fischer
Distrib.: Mysore, Karnataka. Endemic.
- I. lisboae** Hook. f.
Distrib.: Babalbudan hills, Karnataka. Endemic.
- Limnopoa meebodii** (C. E. C. Fcher) C. E. Hubb.
Distrib.: Chalakkudi, Cochin, Kerala. Endemic.
- Ochlandra beddomei** Gamble
Distrib.: Wynaad, Nilagiri hills, Tamil Nadu. Endemic.
- O. scriptoria** C. E. C. Fischer
Distrib.: Cochin, Malabar, Travancore, Kerala. Endemic.
- O. setigera** Gamble
Distrib.: Gudalur, Nilagiri, Tamil Nadu. Endemic.
- Teinostachyum beddomei** C. E. C. Fischer
Distrib.: Nilagiri hills, Tamil Nadu; Travancore hills, Kerala. Endemic.

GUJARAT AND RAJASTHAN REGION

(by M. J. Kothari & P. K. Hajra)

BRASSICACEAE

Farsetia macrantha Blatt. & Hallb.

Distrib.: Barmer, Rajasthan. Endemic and rare.

CAPPARACEAE

Cleome gynandra L. var. **nana** (Blatt. & Hallb.) Bhandari

Distrib.: Rajasthan. Endemic. Rare.

MALVACEAE

Abutilon bidentatum Hochst. var. **major** (Blatt. & Hallb.) Bhandari

Distrib.: Rajasthan. Endemic. Rare.

A. fruticosum Guill. & Perr. var. **chrysocarpa** Blatt. & Hallb.

Distrib.: Rajasthan. Endemic. Rare.

A. pakistanicum Jafri et Ali

Distrib.: Rajasthan, Maharastra; Pakistan (Sind). Rare.

Pavonia arabica Hochst. ex Steud. var. **massuriensis** Bhandari

Distrib.: Rajasthan. Endemic..

P. ceratocarpa Mast.

Distrib.: Kutch: Bhuj, Gujarat; Pakistan (Sind.) Rare.

Sida tiagii Bhandari

Distrib.: Gujarat-Kutch, Rajasthan. Endemic.

STERCULIACEAE

Melhania futteyporensis var. **major** (Blatt. & Hallb.) Santapau

Distrib.: Western Rajasthan. Endemic. Rare.

M. magnifolia Blatt. & Hallb.

Distrib.: Western Rajasthan. Endemic. Rare.

ZYGOPHYLLACEAE

Tribulus rajasthanensis Bhandari & Sharma

Distrib.: Gujarat and Rajasthan. Endemic. Rare.

GERANIACEAE

Monsonia heliotropioides (Cav.) Boiss.

Distrib.: North-west Rajasthan; Sind (Pakistan), Egypt. Rare.

Bhandari (1978) has mentioned in his field notes "a very rare plant, observed on grassy slopes at Jaisalmer". It was not found during a recent tour to Rajasthan. The rarity is due to overgrazing.

BURSERACEAE

Commiphora wightii (Arn.) Bhandari

Distrib.: Gujarat, Rajasthan; Pakistan, Arabia.

The plant is becoming rare due to over-exploitation for commercial uses. It is a source of Guggul—Gum resin, which is used as an incense and in medicines.

RHAMNACEAE

Zizyphus truncata Blatt. & Hallb.

Distrib.: Rajasthan. Endemic.

The species is so far known from Jodhpur and Barmer districts. It is becoming rare due to over-exploitation for commercial uses.

FABACEAE

Alysicarpus monilifer (L.) DC. var. **venosus** Blatt. & Hallb.

Distrib.: Rajasthan. Endemic and rare.

This variety is known only from its type locality. It was not found during a recent visit to Badabag, Jaisalmer.

Indigofera caerulea Roxb. var. **monosperma** (Sant.) Santapau

Distrib.: Gujarat, Rajasthan. Endemic.

Psoralea odorata Blatt. & Hallb.

Distrib.: W. Rajasthan; Pakistan. Rare.

Rhynchosia schimperi (Hochst.) Boiss.

Distrib.: W. Rajasthan; Pakistan, Arabia, Egypt. Rare

Tephrosia collina Sharma var. **lanuginocarpa** Sharma

Distrib.: Kutch, Gujarat, Rajasthan. Endemic. Rare.

T. falciformis Ramaswamy

Distrib.: Rajasthan; Pakistan. Rare.

T. jamnagerensis Santapau

Distrib.: Gujarat. Endemic and rare.

COMBRETACEAE

Anogeissus sericea Brandis var. **nummularia** King ex Duthie

Distrib.: Rajasthan, Punjab & Gujarat. It is becoming rare due to exploitation for commercial uses.

LYTHRACEAE

Ammania desertorum Blatt. & Hallb.

Distrib.: Rajasthan, Gujarat; Pakistan. Rare.

MOLLUGINACEAE

Gisekia pharnacioides L. var. **pseudopaniculata** Jeffrey

Distrib.: Rajasthan; Africa. Rare.

RUBIACEAE

Oldenlandia glauca Blatter

Distrib.: Mt. Abu, Rajasthan. Endemic. Very Rare.

This species is so far known from the Type.

ASTERACEAE

Blumea bovei (DC.) Vatke

Distrib.: Gujarat; Pakistan. Rare.

Helichrysum cutchicum (C.B.Cl.) Rolla Rao et Deshpande

Distrib.: Gujarat. Endemic. Rare.

Pulicaria rajputanae Blatt. & Hallb.

Distrib.: Rajasthan. Endemic. Rare.

PLUMBAGINACEAE

Limonium stocksii (Boiss.) O. Ktze.

Distrib.: Kutch, Saurashtra; Pakistan. Rare.

APOCYNACEAE

Wrightia dolichocarpa Bahadur et Bennet

Distrib.: Nagar Haveli and Goa. Rare.

ASCLEPIADACEAE

Caralluma edulis (Edgew.) Benth. & Hook.

Distrib.: W. Rajasthan; Pakistan. Rare.

The species is known in India from W. Rajasthan only. It is becoming rare due to its edible young shoots.

Glossonema varians (Stocks) Benth. ex Hook. f.

Distrib.: Gujarat, Rajasthan; West Asia. Rare.

BORAGINACEAE

Heliotropium calcareum Stocks

Distrib.: Gujarat, Rajasthan; Pakistan. Rare. In Rajasthan, after Macdam (1890), there is no information on the species. From Kutch it is reported only from a solitary locality.

H. rariflorum Stocks

Distrib.: Gujarat, Rajasthan, Punjab; Pakistan, Nibia, Sudan. Rare.

CONVOLVULACEAE

Convolvulus auricomus A. Rich. var. **ferruginosus** Bhandari

Distrib.: Rajasthan. Endemic and rare; known from Type collection only.

C. blatteri Bhandari

Distrib.: Rajasthan. Endemic and rare.

C. scindicus Stocks

Distrib.: Rajasthan; Pakistan. Rare.

C. stocksii Boiss.

Distrib.: Gujarat, Rajasthan; Pakistan. Rare.

The species is scattered with small populations in Gujarat and Rajasthan. It is becoming rare due to overgrazing in the grasslands of Kutch.

Ipomoea cairica (L.) Sweet var. **semine-glabra** (Blatt. & Hallb.) Bhandari

Distrib.: Rajasthan. Endemic. Rare. Known only from Type (1919).

I. kotschyana Hochst. ex Choisy

Distrib.: Gujarat—Kutch; Sudan. Very rare.

SOLANACEAE

Withania coagulans (Stocks) Dunal

Distrib.: Rajasthan; Pakistan, Afghanistan. Rare.

The species in India is becoming rare due to over-exploitation for economic uses. The fruits of the plants are used in coagulating milk.

SCROPHULARIACEAE

Anticharis glandulosa Asch. var. **caerulea** Blatt. & Hallb.

Distrib.: Rajasthan. Endemic and rare.

Campylanthus ramosissimus Wt.

Distrib.: Gujarat-Kutch; Pakistan. Rare.

Veronica anagallis-aquatica L. var. **bracteata** Blatt. & Hallb.

Distrib.: Rajasthan. Endemic and rare.

V. beccabunga L. var. **attenuata** Blatt. & Hallb.

Distrib.: Rajasthan. Endemic and rare.

ACANTHACEAE

Dicliptera abuensis Blatt. & Hallb.

Distrib.: Rajasthan. Endemic. Presumably Extinct.

The species is known only from the Type collection (1916). During a recent visit to Mt. Abu, the species was searched in the Type locality but could not be collected.

Strobilanthes hallbergii Blatter

Distrib.: Rajasthan. Endemic.

The species is so far known from Type collection made in 1916 from Mt. Abu and could not be collected.

EUPHORBIACEAE

Dalechampia scandens L. var. **cordofana** (Hochst.) Muell.—Arg.

Distrib.: Gujarat; Trop. Africa. Rare.

The variety is scattered in small populations in Gujarat.

Euphorbia jodhpurensis Blatt. & Hallb.

Distrib.: Rajasthan—Jodhpur, Barmer; Pakistan. Rare.

HYDROCHARITACEAE

Hydrilla polysperma Blatter

Distrib.: Rajasthan. Mt. Abu. Endemic and rare.

The species is known only from Type collection made in 1916.

ORCHIDACEAE

Dendrobium microbulbon A. Rich.

Distrib.: Gujarat (Dangs), Maharashtra, S. India. Rare in Dangs forest.

Eulophia ramentacea Lindl. ex Wight

Distrib.: Gujarat (Panchmahals), Western Ghats, Deccan, N. Kanara.

The species is rare and so far known from Panchmahals only in Gujarat.

LILIACEAE

Chlorophytum borivilianum Sant. & Farnand.

Distrib.: The species is restricted to Gujarat (Dangs) and Maharashtra (Borivili) with scattered and small populations. Rare.

Dipcadi erythraeum Webb. & Berth.

Distrib.: Gujarat-Kutch; Pakistan to Egypt.

The species is so far known from a solitary locality in Gujarat (Bhuj) with small populations.

ARECACEAE

Hyphaene dichotoma (White) Furtado

Distrib.: The species is restricted to the Western coastal region (Gujarat, Maharashtra).

LEMNACEAE

Lemna minima Blatt. & Hallb.

Distrib.: Mt. Abu (Type locality), Rajasthan. Endemic. Very Rare.

The species is so far known from Type collection.

L. maxima Blatt. & Hallb.

Distrib.: Mt. Abu, Rajasthan. Endemic. Very Rare.

The species is known from Type collection.

CYPERACEAE

Cyperus dwarakensis Sahnı et Naıthani

Distrib.: Gujarat. Endemic and rare—Along the sea-coast.

POACEAE

Cenchrus prieurii (Kunth) Maire var. **scabra** Bhandari

Distrib.: Rajasthan. Endemic. Rare.

C. rajasthanensis Kanodia et Nanda

Distrib.: Rajasthan. Endemic. Rare.

Ischaemum kingii Hook. f.

Distrib.: Mt. Abu, Rajasthan. Endemic. Rare.

During a recent visit to Mt. Abu, the species could not be located.

I. santapauı Bor

Distrib.: Dangs, Gujarat and Karjat in Maharashtra. Endemic. Very Rare.

WESTERN HIMALAYAS

(by P. K. Hajra)

RANUNCULACEAE

Aconitum atrox (Bruhl) Mukherjee

Distrib.: N.W. Himalaya; Nepal. Rare.

A. deinorrhizum Holmes et Stapf

Distrib.: W. Himalaya. Endemic. Rare.

A. falconeri Stapf

Distrib.: Garhwal. Endemic. Rare.

A. kashmiricum Stapf ex Coventry

Distrib.: Kashmir. Endemic. Rare.

MAGNOLIACEAE

Michelia kisopa Buch.-Ham. ex DC.

Distrib.: W. Himalaya and Sikkim. Endemic. Rare.

BERBERIDACEAE

Berberis kashmiriana Ahrendt.

Distrib.: Kashmir. Endemic. Rare.

B. lambertii Parker

Distrib.: N.W. Himalaya. Endemic. Rare.

PAPAVERACEAE

Meconopsis latifolia Prain

Distrib.: Kashmir. Endemic. Rare.

Papaver himalaicum Cretz.

Distrib.: Kashmir. Endemic. Rare.

BRASSICACEAE

Arabis tenuirostris Schulz

Distrib.: Kashmir. Endemic. Rare.

A. stewartiana Jafry

Distrib.: W. Himalaya. Endemic. Rare.

Draba dasyastra Gilg et Schulz

Distrib.: Endemic to Kashmir. Rare.

Erophila tenerrima (Schulz) Jafry

Distrib.: Endemic to Kashmir. Rare.

VIOLACEAE

Viola himalayensis W. Beck.

Distrib.: Endemic to Kashmir. Rare.

V. kunawarensis Royle

Distrib.: N.W. Himalaya. Endemic. Rare.

CARYOPHYLLACEAE

Cerastium thomsoni Hook. f.

Distrib.: W. Himalaya. Endemic. Very Rare.

Dianthus minimus Javeed

Distrib.: Endemic to Kashmir. Very Rare.

Stellaria depressa Schmid.

Distrib.: Endemic to Kashmir. Rare

Silene kumaonensis Williams

Distrib.: Garhwal Himalaya. Endemic. Very Rare.

GERANIACEAE

Geranium tuberaria Camb.

Distrib.: W. Himalaya. Endemic. Rare.

BALSAMINACEAE

Impatiens harrissii Hook. f.

Distrib.: W. Himalaya. Extremely Rare.

I. meeboldii Hook. f.

Distrib.: Endemic to Kashmir. Very Rare.

I. pahalgamensis Hook. f.

Distrib.: Endemic to Kashmir. Rare.

RHAMNACEAE

Rhamnella gilgitica Mansf. & Melch.

Distrib.: Endemic to Kashmir. Very Rare.

ACERACEAE

Acer molle Pax.

Distrib.: W. Himalaya. Endemic. Rare.

ANACARDIACEAE

Rhus punjabensis Stewart

Distrib.: N.W. Himalaya. Endemic. Very Rare.

FABACEAE

Amphicarpaea anomalus Bunge

Distrib.: Ladakh. Endemic and extremely Rare.

A. flemingii Ali

Distrib.: Punjab. Endemic. Rare.

A. edgeworthii Benth.

Distrib.: W. Himalaya. Endemic. Rare.

Astragalus anomalus Bunge

Distrib.: Ladakh. Endemic. Rare.

A. bakerii Ali

Distrib.: Kashmir. Endemic. Rare.

Alysicarpus meeboldii Sch.

Distrib.: Endemic to Kashmir. Very Rare.

Hedysarum astragaloides Benth. ex Bak.

Distrib.: Kashmir, Himachal Pradesh. Endemic.

Indigofera cedrorum Durnn

Distrib.: Kashmir, Himachal Pradesh. Endemic. Rare.

I. simlensis Ali

Distrib.: Himachal Pradesh. Endemic. Rare.

Thermopsis inflata Camb.

Distrib.: Kashmir and Himachal Pradesh. Endemic. Rare.

Vicia benthamiana Ali

Distrib.: Kashmir. Endemic. Very Rare.

ROSACEAE

Alchimella cashmiriana Rothmaler

Distrib.: W. Himalaya. Endemic. Rare.

Cotoneaster cashmirensis Klotz

Distrib.: Kashmir. Endemic. Rare.

Potentilla kashmirica Hook. f.

Distrib.: Kashmir. Endemic. Rare.

Rubus almorensis Dunn

Distrib.: Uttar Pradesh. Endemic. Rare.

Spiraea diversifolia Dunn

Distrib.: Uttar Pradesh. Endemic. Rare.

PHILADELPHACEAE

Deutzia amurensis Airy Shaw

Distrib.: N.W. Himalaya. Endemic. Rare.

CRASSULACEAE

Sedum duthie Frodestrom

Distrib.: Uttar Pradesh, Kumaon. Endemic. Rare.

ONAGRACEAE

Epilobium glaciale Raven

Distrib.: Jammu and Kashmir. Endemic. Rare.

RUBIACEAE

Clarkella nana Hook. f.

Distrib.: Uttar Pradesh, Kumaon-Garhwal. Endemic. Rare.

Galium confertum Royle

Distrib.: Himachal Pradesh. Endemic. Rare.

ASTERACEAE

Artemisia dolichocephala Pamp.

Distrib.: Kashmir. Endemic. Rare.

Catamixis beccharoides Thoms.

Distrib.: Garhwal and Siwaliks. Endemic. Threatened.

Cousinia falconeri Hook. f.

Distrib.: Jammu and Kashmir. Endemic. Rare.

Lactuca filicina Duthie

Distrib.: Kumaon. Endemic. Rare.

Saussurea atkinsoni Clarke

Distrib.: Jammu and Kashmir, Himachal Pradesh. Endemic. Rare.

S. bracteata Decne

Distrib.: Ladakh; Hazara. Very Rare.

S. clarkei Hook. f.

Distrib.: Jammu and Kashmir. Endemic. Rare.

S. foliosa Edgew.

Distrib.: Garhwal, Kumon. Endemic. Rare.

S. roylei (DC.) Sch.-Bip.

Distrib.: Kashmir to Uttar Pradesh. Endemic. Rare.

PRIMULACEAE

Androsace aizoon Duby

Distrib.: Jammu and Kashmir. Endemic. Rare.

A. mucronifolia Watt

Distrib.: Jammu and Kashmir. Endemic. Rare.

Primula clarkei Watt

Distrib.: Kashmir. Endemic and endangered.

P. drumondiana Craib.

Distrib.: Himachal Pradesh. Endemic. Rare.

LAMIACEAE

Ajuga brachystemon Maxim.

Distrib.: W. Himalaya. Endemic. Rare.

Elscholtzia densa Benth.

Distrib.: Kashmir to Uttar Pradesh. Endemic. Rare.

Nepeta camestris Benth.

Distrib.: Kashmir to Uttar Pradesh. Endemic. Rare.

N. paucifolia Mukerjee

Distrib.: Jammu and Kashmir. Endemic. Rare.

ORCHIDACEAE

Aphyllorchis gollani Duthie

Distrib.: Uttar Pradesh (Tehri-Garhwal). Endemic. Extremely rare.

Archineottia microglottis (Duthie) Chen

Distrib.: Uttar Pradesh. Endemic. Rare.

Bulbophyllum hookeri (Duthie) J. J. Sm.

Distrib.: Uttar Pradesh to Assam. Rare.

B. raui Arora

Distrib.: Uttar Pradesh (Kumaon) Endemic.

Calanthe pachystalix Reichb. f. ex Hook. f.

Distrib.: Uttar Pradesh (Mussoorie); Nepal. Rare

Corallorhiza trifida Chatel

Distrib.: Uttar Pradesh (Kumaon), Kashmir; Nepal, North China, Siberia, Europe, North America and Greenland. Rare in India.

Cymbidium mackinnonii Duthie

Distrib.: Uttar Pradesh (Mussoorie). Endemic. Known from Type.

C. macrorhizon Lindl.

Distrib.: Kashmir, Uttar Pradesh, Sikkim, Meghalaya and Nagaland. Rare.

Cypripedium cordigerum D. Don

Distrib.: Kashmir, Uttar Pradesh (Garhwal — Kumaon); Nepal and Bhutan. Becoming rare due to habitat destruction.

C. elegans Reichb. f.

Distrib.: Uttar Pradesh (Garhwal), Sikkim; Nepal; Bhutan and S. E. Tibet. Habitats of the species under stress.

C. himalaicum Rolfe

Distrib.: Uttar Pradesh (Garhwal — Kumaon), Sikkim; Nepal, Bhutan and S. E. Tibet. Populations threatened due to trade and loss of habitat.

Dendrobium denneanum A. F. G. Kerr

Distrib.: Uttar Pradesh (Kumaon), Sikkim, Meghalaya; Nepal and Burma. Rare.

D. gamblei King & Pantl.

There is no specimen in BSD.

Distrib.: Uttar Pradesh (Dhera Dun), Western Ghats (Nilgiris)?. Rare.

D. normale Falconer

Distrib.: Uttar Pradesh (Garhwal & Kumaon). Endemic. Rare.

Didickea cunninghamii King et Pantl.

Distrib.: Uttar Pradesh (Garhwal); Sikkim. Endemic. Threatened.

Diplomeris hirsuta Lindl.

Distrib.: Uttar Pradesh (Kumaon), W. Bengal (Kalimpong), Arunachal Pradesh (Kameng); Nepal, Bhutan. Rare.

Epipogium roseum (D. Don) Lindl.

Distrib.: Himalaya (Kashmir-Sikkim), Meghalaya; S. E. Asia. This species is becoming rare due to destruction of habitats throughout its distribution range.

Eria occidentalis Seid.

Distrib.: Uttar Pradesh. Endemic. Rare.

Eulophia hormusjii Duthie

Distrib.: Kashmir, Uttar Pradesh, Himachal Pradesh; Pakistan (Hazara). Very Rare.

E. mackinnonii Duthie

Distrib.: Uttar Pradesh. Endemic. No collections after 1898.

E. obtusa Hook. f.

Distrib.: Siwaliks. Endemic. No collections exist in BSD & DD.

Flickingeria hesperis Seid.

Distrib.: Uttar Pradesh. Endemic. Apparently rare.

Galearis stracheyi (Hook. f.) P. F. Hunt

Distrib.: Uttar Pradesh, Sikkim; Nepal, Bhutan. Endemic to Himalaya. No specimens exist in BSD & DD.

Galeola falconeri Hook. f.

Distrib.: Uttar Pradesh, Arunachal Pradesh, Sikkim. Endemic. No collections after 1899. Very rare.

Gastrochilus distichus (Lindl.) O. Ktze.

Known from solitary collection from Tehri Garhwal.

Distrib.: Uttar Pradesh (Garhwal), Sikkim, Manipur, Meghalaya. Rare.

Gastrodia orobanchoides Benth.

Distrib.: Kashmir, Himachal Pradesh, Uttar Pradesh. Endemic. Rare.

Goodyera biflora Hook. f.

Distrib.: Himachal Pradesh, Uttar Pradesh; Nepal. Endemic.

Habenaria arcuata (Lindl.) Hook. f.

Distrib.: Uttar Pradesh, Himachal Pradesh; Nepal. Endemic.

H. longifolia Buch.-Ham. ex Lindl.

Distrib.: Uttar Pradesh, Bihar, W. Bengal; Nepal. Not collected since 1904.

H. pubescens Lindl.

Distrib.: Uttar Pradesh (Kumaon, Garhwal, Mussoorie), W. Bengal, Sikkim. Nepal, Bhutan, China. Rare. No recent collections after 1901.

Hemipilia cordifolia Lindl.

Distrib.: Himachal Pradesh, Uttar Pradesh (Mussoorie, Kumaon); Nepal. Endemic. Rarely collected (1877-1937).

Herminium duthiei Hook. f.

Distrib.: Kashmir, Himachal Pradesh, Uttar Pradesh; Nepal. Endemic. Rare.

H. mackinnonii Duthie

Distrib.: Uttar Pradesh (Mussoorie) and Sikkim. Endemic. Extremely rare; only once collected in 1900.

Liparis caespitosa Lindl.

Distrib.: Uttar Pradesh to Sikkim. Endemic. Extremely rare; two collections made in the years 1896 & 1900 exist in DD.

Listera pinetorum Lindl.

Distrib.: Uttar Pradesh; Nepal, Bhutan, Tibet. Very rare.

L. tenuis Lindl.

Distrib.: Uttar Pradesh, (Garhwal), Sikkim; Nepal, Tibet. Extremely rare.

Malaxis mackinnonii (Duthie) Ames

Distrib.: Uttar Pradesh, Madhya Pradesh, Orissa, W. Bengal, Gujarat; Thailand. There is no specimen in BSD. Very rare.

Neotlia kashmiriana (Duthie) P. Beauv.

Distrib.: Kashmir; Pakistan. There is no specimen in BSD. Once collected in 1901 (DD).

Neottianthe secundiflora (Hook. f.) Schltr.

Distrib.: Uttar Pradesh (Kumaon), Sikkim; Bhutan, Nepal. Extremely rare.

Nervilia mackinnonii (Duthie) Schltr.

Distrib.: Uttar Pradesh (Garhwal, Kumaon). Endemic. Rare.

Oreorchis indica Hook. f.

Distrib.: Uttar Pradesh (Garhwal, Kumaon), Himachal Pradesh. Endemic. Rare.

O. rolfei Duthie

There is no specimen in BSD; once collected in 1900 (DD).

Distrib.: Uttar Pradesh (Tehri Garhwal). Endemic.

Saccolabiopsis pusilla (Lindl.) Seid. & Garay

Distrib.: Uttar Pradesh (Kumaon), Sikkim, Meghalaya. Extremely rare.

Vanda pumila Hook. f.

Distrib.: Uttar Pradesh (Kumaon), W. Bengal (Darjeeling district), Sikkim, Meghalaya, Jaintea Hills; Bhutan. Rare.

ZINGIBERACEAE

Cautleya petiolata Baker

There is no specimen in BSD; not collected after 1923.

Distrib.: Uttar Pradesh, Himachal Pradesh. Endemic. Rare.

Hedychium aurantiacum Roscoe

There is no specimen in BSD & DD.

Distrib.: Uttar Pradesh; Nepal, Bhutan. Endangered.

IRIDACEAE

Iris duthie Foster

There is no specimen in BSD & DD.

Distrib.: Uttar Pradesh (Kumaon). Endemic. Endangered.

I. milesii Foster

Distrib.: Himachal Pradesh, Jammu and Kashmir. Endemic. Extremely rare.

LILIACEAE

Allium auriculatum Kunth

Distrib.: Himachal Pradesh, Jammu and Kashmir. Endemic. Not collected after 1931. Endangered.

A. loratum Baker

There is no specimen in BSD & DD.

Distrib.: Jammu and Kashmir. Endemic. Endangered.

A. roylei Stearn

Distrib.: Jammu and Kashmir. Endemic. Endangered.

Eremurus himalaicus Baker

Distrib.: Temperate Western Himalaya; Eastern Turkestan. Rare.

Lilium polyphyllum Don

Distrib.: Jammu and Kashmir, Himachal Pradesh, Uttar Pradesh; Pakistan; Afghanistan. Rare.

Polygonatum graminifolium Hook.

Distrib.: W. Himalaya. Very rarely collected.

DIOSCOREACEAE

Dioscorea deltoidea Wall. ex Kunth

There are many collections from Himachal Pradesh, Jammu and Kashmir and Uttar Pradesh in BSD & DD.

The plant is becoming rare due to over-exploitation.

Distrib.: Jammu and Kashmir to Bhutan; Afghanistan.

ERIOCAULACEAE

Eriocaulon pumilo Hook. f.

Distrib.: Uttar Pradesh (Garhwal and Kumaon). Endemic. Extremely rare.

CYPERACEAE

Carex annulata Kukenth.

There is no specimen in BSD and DD.

Distrib.: Jammu and Kashmir; Tibet. Endangered.

C. atrata L. ssp. **pullata** (Boott) Kukenth.

Distrib.: Jammu and Kashmir, Uttar Pradesh, Sikkim; Nepal. Endemic. Rare.

C. borii Nelms

Distrib.: Jammu and Kashmir and Himachal Pradesh. Endemic. Very rare.

C. kashmirensis C. B. Clarke

Distrib.: Jammu and Kashmir; Pakistan. Rare.

C. kumaonensis Kukenth.

Distrib.: Uttar Pradesh; Nepal and China. Endangered. Not collected since 1886.

C. munroi Boot ex C. B. Clarke

There is no specimen in BSD and DD.

Distrib.: Himachal Pradesh. Endemic. Endangered.

C. myosurus Nees var. **oraestans** (C. B. Clarke) Kukenth.

There is no specimen in BSD. and DD.

Distrib.: Uttar Pradesh. Endemic. Endangered.

C. stracheyi C. B. Clarke

Distrib.: Uttar Pradesh; Nepal. Very rare.

Kobresia duthiei C. B. Clarke

Distrib.: Uttar Pradesh, Himachal Pradesh. Endemic.

K. trinervis (Nees) Boeck. var. **foliosa** (C. B. Clarke) Kukenth.

Distrib.: Uttar Pradesh. Endemic. Not collected since 1893. Endangered.

Microschoenus duthiei C. B. Clarke

Known only from Type collection.

There is no specimen in BSD.

Distrib.: Uttar Pradesh. Endemic. Endangered.

POACEAE

Agropyron duthiei Melderis

Distrib.: Uttar Pradesh, Himachal Pradesh. Endemic. Not collected since 1889.

Calamagrostis decora Hook. f.

Known only from Type collection

Distrib.: Jammu and Kashmir. Endemic.

C. garhwalensis C. E. Hubb. & Bor

Distrib.: Jammu and Kashmir, Himachal Pradesh, Uttar Pradesh; Nepal. Very rare.

C. stoliczkai Hook. f.

There is no specimen in BSD and DD.

Distrib.: Jammu and Kashmir. Endemic.

Catabrosa aquatica (L.) P. Beauv. var. **angusta** Stapf

There is no specimen in DD.

Distrib.: Jammu and Kashmir. Endemic. Extremely rare.

Catabrosella himalaica (Hook. f.) Tzvelv.

Distrib.: Jammu and Kashmir; Pakistan, Afghanistan. Rare.

Cymbopogon flexuosus (Nees ex Steud.) Wats. var. **microstachys** (Hook. f.) Bor

There is no specimen in BSD and DD.

Distrib.: Uttar Pradesh. Endemic. Endangered.

C. osmastonii Parker

Distrib.: Uttar Pradesh. Endemic. Rare.

C. ramnagarensis B. K. Gupta

Distrib.: Jammu and Kashmir. Endemic. Rare.

Deyeuxia kashmeriana Bor

Distrib.: Jammu and Kashmir; Pakistan. Rare.

D. simlensis Bor

Distrib.: Himachal Pradesh. Endemic. Endangered. Known only from Type sheet.

Elymus thomsonii (Hook. f.) Melderis

Distrib.: Uttar Pradesh, Himachal Pradesh; Nepal. Endemic. Not collected since 1883.

E. stewartii (Meld.) T. A. Cope

Distrib.: Jammu and Kashmir; Pakistan. There is no specimen in BSD and DD.

Eulalia staintonii Bor

Distrib.: Uttar Pradesh; Nepal. Endemic. Rare. There is no specimen in BSD and DD.

Festuca levingei Stapf

Distrib.: Jammu and Kashmir. Endemic. Endangered. Known only from Type collectiln.

Festuca lucida Stapf

Distrib.: Jammu and Kashmir, Himachal Pradesh, Uttar Pradesh. Endemic. Rare.

Ischnochloa falconeri Hook. f.

Distrib.: Uttar Pradesh. Endemic. Not collected since 1938.

Lophochloa clarkeana (Domin) Bor

Distrib.: Jammu and Kashmir. Endemic.
There is no specimen in BSD and DD.

Orinus thoroldii (Stapf) Bor

Distrib.: Jammu and Kashmir (Ladak); Tibet. Very rare.

Oryzopsis humilis Bor

Distrib.: Uttar Pradesh. Endemic. Extremely rare.
There is no specimen in BSD and DD.

O. stewartiana Bor

Distrib.: Himachal Pradesh. Endemic. Very rare.
There is no specimen in BSD and DD.

Poa falconeri Hoof. f.

Distrib.: Himachal Pradesh; Pakistan, Nepal. Rarely collected.

Ppseudamoena Bor

Distrib.: Uttar Pradesh (Kumaon). Endemic. Rare.

P. rhadina Bor

Distrib.: Uttar Pradesh (Tehri Garhwal). Endemic. Endangered.
Known only from Type.

P. setulosa Bor

Distrib.: Himachal Pradesh; Pakistan. Rare.

Pseudodanthonia himalaica (Hook. f.) Bor et Hubbard

Distrib.: Uttar Pradesh. Endemic. Very rare.

Puccinellia kashmiriana Bor

Distrib.: Jammu and Kashmir, Himachal Pradesh. Endemic. Very rare.

P. thomsonii (Stewart

Distrib.: Jammu and Kashmir. Endemic.
There is no specimen in BSD and DD.

Schizachyrium impressum (Hack.) A. Camus

Distrib.: Jammu and Kashmir (Kistwar) Endemic. Endangered.
Known only from type collection.

Stipa chitralensis Bor

Distrib.: Jammu and Kashmir. Endemic. Rare.
There is no specimen in BSD and DD.

Trisetum micans (Hook. f.) Bor

Distrib.: Jammu and Kashmir, Uttar Pradesh (Tehri Garhwal). Endemic.
Rare.

NORTH-EASTERN INDIA

(by A. R. K. Sastry, S. K. Katakai & A. S. Chauhan)

NYMPHAEACEAE

Nymphaea tetragona Gregori

Distrib.: Nongkhrem, Khasi Hills; Siberia, N. China. Threatened.

ANNONACEAE

Goniothalamus simonsii Hook. f. & Th.

Distrib.: Meghalaya. Endemic. Very rare.

Polyalthia simiarum Benth. & Hook. f.

Distrib.: Assam and Meghalaya; S. E. Asia. Very rare.

Unona longiflora Roxb.

Distrib.: Tura Peak and Nongkhylllem Reserve Forest in Meghalaya. Very rare.

Uvaria hamiltonii Hook. f. & Th.

Distrib.: Sikkim, Bihar, Orissa and Assam. Extremely rare.

U. lurida Hook. f. & Th.

Distrib.: Khasi Hills. Endemic. Extremely rare.

MAGNOLIACEAE

Alcimandra cathcartii Hook. f. & Th.

Distrib.: Eastern Himalaya, Khasi and Jaintia Hills and Naga Hills. Very rare.

Magnolia griffithii Hook. f. & Th.

Distrib.: Upper Assam. Endemic. Rare.

M. gustavi King

Distrib.: Upper Assam. Endemic. Rare.

M. lanuginosa Wall.

Distrib.: Central and Eastern Himalaya, Khasi and Jaintia Hills. Rare.

Manglietia insignis Bl.

Distrib.: Sikkim, Nepal and Meghalaya. Rare and confined to Sacred groves.

Michelia punduana Hook. f. & Th.

Distrib.: Khasi and Jaintia Hills. Endemic. Rare.

Pachylarnax pleiocarpa Dandy

Distrib.: Upper Assam. Endemic. Very rare.

FUMARIACEAE

Dicentra roylei Hook. f. & Th.

Distrib.: North-West Himalayas to Khasi and Jaintia Hills in in Meghalaya. Rare.

FLACOURTIACEAE

Homalium schleichii Kurz

Distrib.: Assam and Burma. Very rare.

POLYGALACEAE

Polygala tricholopha Chodat

Distrib.: Assam and Meghalaya in India. Very rare.

Salmonia aphylla Griff.

Distrib.: Confined to Meghalaya in India; Burma, Malacca. Very rare..

THEACEAE

Anneslea fragrans Wall.

Distrib.: Nagaland and Burma. Very rare.

SAURAUACEAE

Saurauia griffithii Dyer

Distrib.: Sikkim and Arunachal Pradesh. Rare.

ICACINACEAE

Apodytes benthamiana Wt.

Distrib.: Shangpung, Khasi Hills. Rare. Also in Nilgiris.

Iodes hookeriana Baill.

Distrib.: Khasi Hills and Chittagong Hills. Rare.

AQUIFOLIACEAE

Ilex embeloides Hook. f.

Distrib.: Khasi Hills. Endemic. Rare.

I. khasiana Purakaystha

Distrib.: Khasi Hills. Endemic. Endangered.

I. venulosa Hook. f.

– *Distrib.:* Khasi Hills, Arunachal Pradesh. Threatened.

CELASTRACEAE

Euonymus bullatus Wall. ex Lindl.

Distrib.: Assam and Meghalaya. Very rare and confined to Sacred Groves.

FABACEAE (PAPILIONACEAE)

Apios carnea Benth.

Distrib.: Khasi Hills, Meghalaya; Nepal. Extremely rare.

CAESALPINIACEAE

Acrocarpus fraxinifolium Wt.

Distrib.: Meghalaya, Extremely rare.

Lasiobema scandens (Linn.) de Wit var. **horsefieldii** (Wall. ex Prain) de Wit

Distrib.: Assam, Meghalaya. Endemic. Very rare.

Phanera khasiana (Baker) Thoth.

Distrib.: Khasi Hills, Meghalaya and Arunachal Pradesh. Very rare.

P. wallichii (Macbr.) Thoth.

Distrib.: Assam, Meghalaya. Extremely rare.

HAMAMELIDACEAE

Distylium indicum Benth.

Distrib.: Khasi Hills. Endemic. Rare.

ARALIACEAE

Merrilliopanax cordifolia Sastry

Distrib.: Subansiri, Arunachal Pradesh. Endemic. Rare. Known only from Types.

RUBIACEAE

Mycetia mukerjiana Deb & Dutta

Distrib.: Makum Hills, Assam. Endemic. Rare.

Nertera sinensis Hemsl.

Distrib.: Subansiri, Arunachal Pradesh; China. Very rare.

Leptodermis griffithii Hook. f.

Distrib.: Meghalaya, Eastern India. Very rare.

L. scabrida Hook. f.

Distrib.: Mishmee Hills, Arunachal Pradesh. Endemic. Rare.

ERICACEAE

Rhododendron concinnoides Hutch. et Ward

Distrib.: Arunachal Pradesh. Endemic. Endangered. Known only from Type collection.

R. edgeworthii Hook. f.

Distrib.: Eastern Himalaya; Burma, China. Very rare.

R. elliottii Watt

Distrib.: Manipur, Nagaland. Endemic. Threatened.

R. johnstoneanum Watt ex Hutch.

Distrib.: Manipur, Mizoram. Endemic. Threatened.

R. nuttallii Booth

Distrib.: Daffla Hills. Arunachal; China. Very rarely collected.

R. santapau Sastry et al

Distrib.: Subansiri, Arunachal Pradesh. Endemic. Endangered. Known from Types only.

R. subansiriense Chamberlain

Distrib.: Arunachal Pradesh. Endemic. Endangered. Known from Type only.

MYRSINACEAE

Ardisia quinquangularis A. DC.

Distrib.: Khasi Hills. Endemic. Rare.

A. rhynchophylla C. B. Cl.

Distrib.: Cherrapunji, Khasi Hills. Endemic. Threatened.

SAPOTACEAE

Sideroxylon assamicum C. B. Cl.

Distrib.: Cachar, Assam, Khasi Hills. Endemic. Rare.

STYRACACEAE

Alniphyllum fortunei (Hemsl.) Makino

Distrib.: Subansiri, Arunachal Pradesh; China. Very rare.

Bruinsmia polysperma (Clarke) van Steenis

Distrib.: Khasi Hills; Burma. Endangered.

Huodendron biaristatum (Sm.) Rehder

Distrib.: Subansiri, Arunachal Pradesh; China. Very rare.

ASCLEPIADACEAE

Hoya lobbii Hook. f.

Distrib.: Meghalaya. Endemic. Rare.

Dischidia benghalensis Colebr.

Distrib.: Sikkim, Assam; Nepal. Very rare.

D. rafflesiana Wall.

Distrib.: Assam. Very rare.

GENTIANACEAE

Swertia macrosperma C. B. Cl.

Distrib.: Nepal; Khasi Hills. Rare.

SOLANACEAE

Pauia belladonna Deb & Dutta

Distrib.: Tirap, Arunachal Pradesh. Endemic. Rare.

GESNERIACEAE

Rhynchoglossum lazulinum A. S. Rao et Josheph

Distrib.: Arunachal Pradesh. Endemic. Extremely rare.

RAFFLESIACEAE

Sapria himalayana Griff.

Distrib.: Arunachal Pradesh, Manipur, Assam. Extremely rare.

Mitrastemon yamamotoi Makino

Distrib.: Khasi Hills, Meghalaya; Japan and Sumatra. Very rare, threatened due to habitat destruction.

EUPHORBIACEAE

Trigonostemon chatterjii Deb

Distrib.: Khasi Hills. Endemic. Very rare.

URTICACEAE

Boehemeria tirapensis Deb & Dutta

Distrib.: Tirap District, Arunachal Pradesh. Endemic. Rare. Known from Types only.

NEPENTHACEAE

Nepenthus khasiana Hook. f.

Distrib.: Meghalaya. Endemic. Threatened; the habitat is now protected.

ORCHIDACEAE

Acanthephippium sylhetnese Lindl.

Distrib.: Sikkim, Arunachal Pradesh, Assam, Meghalaya. Rare.

Aphyllorchis vaginata Hook. f.

Distrib.: Khasi Hills, Meghalaya. Endemic. Rare.

Bulbophyllum lobbii Lindl.

Distrib.: Mizoram, Nagaland; Burma, Java. Rare.

Bulleyia yunnanensis Schltr.

Distrib.: Arunachal Pradesh, Darjeeling; China. Very rare.

Calanthe herbacea Lindl.

Distrib.: Sikkim. Endemic. Rare.

Corybas purpureus Jos. et Yog.

Distrib.: Meghalaya. Endemic. Habitat threatened.

Cymbidium sikkemense Hook. f.

Distrib.: Sikkim. Endemic. Rare.

C. munronianum King & Pantl.

Distrib.: Sikkim, Meghalaya, Nagaland. Rare.

- C. whiteae** King & Pantl.
Distrib.: Sikkim. Endemic. Rare.
- Dendrobium bensoniae** Reichb. f.
Distrib.: Manipur, Mizoram; Burma and Thailand. Rare.
- D. sulcatum** Lindl.
Distrib.: Assam, Meghalaya. Endemic. Rare.
- Didiciea cunnighamii** King & Pantl.
Distrib.: Sikkim and Garhwal Himalayas. Monotypic and Rare.
- Diglyphosa macrophylla** King & Pantl.
Distrib.: Sikkim. Rare.
- Diplomeris pulchella** D. Don
Distrib.: Meghalaya. Rare.
- Eria barbata** (Lindl.) Reichb. f.
Distrib.: Meghalaya; Buram and Thailand. Very rare.
- Esmeralda clarkei** Reichb. f.
Distrib.: Meghalaya, Sikkim, Arunachal Pradesh; Bhutan. Very rare.
- Eulophia candida** (Lindl.) Reichb. f.
Distrib.: Assam and Sikkim. Rare.
- Galeola cathcartii** Hook. f.
Distrib.: Sikkim. Endemic. Threatened.
- G. falconeri** Hook. f.
Distrib.: Sikkim, Arunachal Pradesh. Endemic. Rare.
- Gastrodia exilis** Hook. f.
Distrib.: Meghalaya, Endemic. Endangered.
- G. dyeriana** King & Pantl.
Distrib.: Sikkim. Endemic. Rare.
- Goodyera recurva** Lindl.
Distrib.: Khasi Hills. Endemic. Threatened.
- Liparis distans** Clarke
Distrib.: Nagaland. Endemic. Rare.
- L. pulchella** Hook. f.
Distrib.: Meghalaya, Nagaland. Endemic. Rare.
- Nervilia scottii** (Reichb. f.) Schltr.
Distrib.: Sikkim and Meghalaya. Endemic. Rare.

Paphiopedilum fairieanum (Lindl.) Stein

Distrib.: Sikkim, Arunachal Pradesh, Bhutan. Endemic. Vulnerable due to habitat destruction and exploitation.

P. spicerianum (Reichb. f.) Pfitz.

Distrib.: Assam. Endemic. Endangered; over exploited.

P. venustum (Wall. ex Sims.) Pfitz.

Distrib.: Meghalaya, Sikkim; Bangladesh. Very rare.

Pholidota calceata Reichb. f.

Distrib.: Khasi Hills, Meghalaya. Endemic. Rare.

Pleione hookeriana (Lindl.) Williams

Distrib.: Sikkim, Arunachal Pradesh; Bhutan and Nepal. Endemic. Rare.

P. laginaria Lindl.

Distrib.: Khasi Hills, Meghalaya. Endemic. Very rare.

Renanthera imschootiana Rolfe

Distrib.: Manipur, Nagaland; Burma. Threatened.

Risleya atropurpurea King & Pantl.

Distrib.: Sikkim. Endemic. Threatened.

Vanda coerulea Griffth ex Lindl.

Distrib.: Meghalaya, Manipur, Nagaland; Burma and Thailand.
Populations greatly depleted.

ZINGIBERACEAE

Hedychium calcaratum Rao and Verma

Distrib.: Khasi Hills, Meghalaya. Endemic. Threatened.

H. dekianum Rao & Verma

Distrib.: Khasi and Jaintia Hills. Endemic. Rare.

H. gracillimum Rao & Verma

Distrib.: Khasi Hills, Meghalaya. Endemic. Rare.

H. gratum Rao & Verma

Distrib.: Endemic to Khasi Hills. Rare.

H. longipedunculatum Sastry & Verma

Distrib.: Subansiri, Arunachal Pradesh. Endemic. Rare. Known from Types only.

H. marginatum Cl.

Distrib.: Nagaland. Presumably extinct.

H. rubrum Rao & Verma

Distrib.: Meghalaya. Endemic. Rare.

DIOSCOREACEAE

Dioscorea laurifolia Wall. ex Hook. f.

Distrib.: Arunachal Pradesh; S.E. Asia. Rare.

D. orbiculata Hook. f.

Distrib.: Subansiri, Arunachal Pradesh; S.E. Asia. Rare.

LILIACEAE

Smilacina fusca Wall.

Distrib.: Meghalaya. Restricted to Sacred forests.

Lilium mackliniae Sealy

Distrib.: Manipur. Endemic and Very rare.

ARACEAE

Lagenandra undulata Sastry

Distrib.: Subansiri, Arunachal Pradesh. Endemic. Rare. Known from Type collections.

ARECACEAE

Livistona jenkinsiana Griff.

Distrib.: Sikkim, Arunachal Pradesh, Meghalaya. Rare.

Phoenix rupicola T. Anders.

Distrib.: Sikkim and eastwards. Very rare.

Wallichia triandra (Joseph) Basu

Distrib.: Lohit, Arunachal Pradesh. Endemic. Rare.

W. disticha T. Anders.

Distrib.: Sikkim and Arunachal Pradesh. Endemic. Rare.

CYPERACEAE

Carex rara Boot

Distrib.: Assam and Meghalaya. Endemic. Very rare.

C. remota L.

Distrib.: North-East India. Very rare.

