



Red list of Threatened Vascular Plant Species in India

Compiled from the 1997 IUCN Red List of Threatened Plants

Ministry of Environment & Forests
Government of India



Erinocarpus nimmonii Graham



A population of *Syzygium gambleanum*
Rathakr. & Chithra



Syzygium gambleanum Rathakr. & Chithra -
A twig with flowers
(Inset : close up of fruits)

**RED LIST OF
THREATENED VASCULAR
PLANT SPECIES
IN INDIA**

**COMPILED FROM THE
1997 IUCN RED LIST OF
THREATENED PLANTS**

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FOREWORD

Red Lists and Red Data Books of Threatened Taxa form a significant component in the formulation of appropriate schemes for any given habitat. Red Lists are prepared in accordance with the guidelines given by the International Union for Conservation of Nature and Natural Resources (IUCN) and the World Conservation Union to make them globally acceptable and comparable. The Botanical Survey of India (BSI) gave serious thought as early as in 1980's to deliberate and discuss the status of threatened plants in the country and published a booklet titled "Threatened Plants of India – A state of the Art Report" based on the available data. This was followed by publication of "Indian plant Red Data Book" in 1984 and 622 Red Data sheets in three volumes as "Red Data Book of Indian Plants" during 1987-1990. Evaluation and categorization of each taxon in these Red Data books is done following the criteria of IUCN Plant Red Data Book (1978). These books have brought in considerable awareness among the botanical public and had to be reprinted in the year 2000 due to overwhelming demand. These publications prompted many to recollect and relocate certain species, which in turn are effectively conserved.

The IUCN has published 1997 Red List of threatened Plants of the World, based on 1994 IUCN criteria in the year 1998. This has necessitated a revision in the status of species included in the Red Data Book of Indian Plants. Much data needed in the revised categorisation in fact demands collaboration of different subject experts in Botanical Survey of India and other institutions across the country. The survey is currently engaged in a project titled "Revalidation of threatened plants of India" based on recent IUCN threat criteria. A computerised botanical manual of Red Data plants is now made available through Environmental Information System (ENVIS) Centre of the BSI. It is now observed that there is serious scarcity in the availability of copies of 1997 IUCN Red List. Moreover it is often experienced that more time and efforts are needed to search for individual's interested taxa in this oversized and unwieldy document that contains 33,418 species (www.unep-wcmc.org/species/plants/red_list). Therefore, a separate publication with complete list of threatened plants of India drawing them from this document is thought appropriate and Prof. C. Kameswara Rao and his colleagues have undertaken this task with the required professionalism.

I am happy that this book, being handy and envisaged for conservationists is published by ENVIS Centre of BSI and will go a long way in serving the needs of botanical fraternity of this country. The scientific Programme Advisory Committee of this organisation has also shown keen interest in early publication of this book. The book is not priced as per the condition laid down by IUCN while permitting us the partial reproduction of the Red List.

Dated
Kolkata

(M. SANJAPPA)
DIRECTOR
Botanical Survey of India

PREFACE

Peter Scott conceived the 'International IUCN Red Data Books' in 1963, to focus the attention of all concerned on the species of plants and animals that are under threat of extinction. The concept has caught the imagination of biologists the world over and a very large number of Red Lists and Red Data Books have been published for different regions of the world and for different taxonomic groups of plants and animals. Unfortunately, there was no uniformity of concepts and evaluation, leading to a lot of confusion and controversy.

The IUCN was alert to this situation and defined threat categories and provided guidelines to determine the threat status of species, which were revised in 1994. Two important considerations are that the threat status should be determined on the basis of the entire range of distribution of the concerned taxon and that it should be based on quantitative data. These two important criteria were often not the basis of a very large number of Red Lists and Red Data Books.

In 1996 the IUCN published the Red List of Threatened Animals basing on the 1994 categories.

The first ever 1997 Red List of Threatened Plants with a global coverage was published only in 1998, basing on the pre-1994 IUCN categories, at a time when even the 1994 categories are sought to be revised.

The publication of the 1997 Red List of Threatened Plants has shifted the focus of botanists from the largely arguable regional and local Red Lists and Red Data Books. The 1997 Red List includes 33,798 species of vascular plants under different categories of threat, in different parts of the world.

It is now for the botanists in different parts of the world to critically examine the entries in the 1997 Red List and prepare threatened plant lists, more scientific than before, for their own regions and needs. This will draw attention to programmes of conservation of the threatened species and will help planners, administrators and Governments, to understand the urgency and importance of conservation of the threatened species and to formulate effective measures to check the threats to taxa.

We observed that a number of botanists in India have not seen the 1997 Red List book and some have not even heard about its release. Those who wanted to find the threatened species of their own favourite families from the 1997 Red List, had to spend a considerable time and effort, in obtaining information from this massive publication. A suggestion has then emerged that the Indian taxa should be compiled from the 1997 Red List and published separately, so that the Indian botanical community and others interested in Indian botany will have an easy and handy access to the list of threatened species of vascular plants in India.

The information on the Indian taxa in the 1997 IUCN Red List was sourced in the earlier publications on the threat status by mostly the Indian authors. There has been a lot of criticism on the criteria and therefore, the validity of the listings in the Indian Red Data Books and Red Lists. The need for a critical evaluation of the lists of threatened Indian taxa cannot be overemphasised. The Red Lists, published whether

by the IUCN or others, cannot be more scientific and accurate than their sources. There has been an unfortunate over enthusiasm and a misplaced anxiety to be the first to publish Red Lists. We need to raise the levels of our perception and evaluation. It is hoped that the present compilation of threatened Indian vascular plant species, from the 1997 Red List of Threatened Plants, will draw the attention of botanists and pave way for a more realistic list.

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The Principal, SSMRV College, Bangalore and the Rashtriya Shikshana Samithi Trust, Bangalore, for permitting the project to be carried out at the PG Department of Applied Botany, SSMRV College and for infra-structural support.

The IUCN have generously permitted the reproduction of the 1997 Red List of Threatened Plants (or parts of it) for educational and non-commercial purposes.

ENVIS Centre, Botanical Survey of India have kindly undertaken the publication of the list of threatened Indian taxa and its distribution free of cost, in conformation with the condition laid down by the IUCN for reproduction of the 1997 Red List of Threatened Plants.

September, 2003

C Kameswara Rao
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CONTENTS

Foreword	iii
Preface	v
Acknowledgements	vi
I. INTRODUCTION	ix
1. BIODIVERSITY AND CONSERVATION	ix
2. CONSERVATION OF BIODIVERSITY	x
3. INTERNATIONAL ORGANISATIONS FOR BIODIVERSITY CONSERVATION	xi
3A. INTERNATIONAL UNION FOR CONSERVATION OF NATURE AND NATURAL RESOURCES (IUCN)	xi
3B. SPECIES SURVIVAL COMMISSION	xi
3C. CONVENTION ON INTERNATIONAL TRADE IN ENDANGERED SPECIES OF WILD FLORA AND FAUNA (CITES)	xii
3D. TRADE RECORDS ANALYSIS OF FAUNA AND FLORA IN COMMERCE (TRAFFIC)	xii
3E. CONVENTION ON BIOLOGICAL DIVERSITY (CBD)	xii
3F. WORLD WIDE FUND FOR NATURE (WWF)	xiii
3G. WORLD CONSERVATION MONITORING CENTRE (MCMC)	xiii
4. CONTRIBUTORS TO THE 1997 IUCN RED LIST OF THREATENED PLANTS	xiii
5. AUTHENTIC REFERENCE DOCUMENTS ON BIODIVERSITY CONSERVATION	xiii
5A. RED LISTS AND RED DATA BOOKS OF THREATENED SPECIES	xiii
5B. RED DATA BOOKS	xiv
5C. CITES APPENDICES	xv

6. SYSTEM OF CATEGORIES OF THREATENED SPECIES	xv
6A. PRE-1994 CATEGORIES OF THREATENED PLANTS	xv
6B. IUCN 1994 RED LIST CATEGORIES	xvi
6C. CITES APPENDICES	xvii
7. THREAT STATUS OF INDIAN VASCULAR PLANT SPECIES	xviii
7A. THREAT STATUS AT THE GLOBAL AND INDIAN LEVELS	xviii
7B. DEGREE OF THREAT TO GENERA AND SPECIES IN DIFFERENT FAMILIES IN INDIA	xviii
8. READING THE LISTS	xix
9. REFERENCES	xix
 II. LIST OF THREATENED SPECIES OF VASCULAR PLANTS IN INDIA	1
 III. REFERENCES (to literature entries in the list)	132

I. INTRODUCTION

1. BIODIVERSITY AND CONSERVATION

The term 'Biodiversity' is the short form of *Biological diversity*, used to convey the total number, variety and variability of living organisms in a given area, whether be it on land, in rivers and fresh water bodies, and the seas or the whole surface of the earth. Biodiversity embraces the whole of life, and includes all the micro-organisms, plants and animals, on earth. Biodiversity also refers to and includes the genes of organisms, the ecosystems they live in and the services they provide to keep the planet healthy.

The term 'biological resources' denotes those components of biodiversity that maintain the current or potential human uses.

Biodiversity is usually classified into three categories that represent three fundamental and related levels of biological organisation:

- a) Ecosystem Diversity,
- b) Species Diversity, and
- c) Genetic Diversity.

Ecosystem diversity relates to the variety of habitats, biotic communities and ecological processes in the biosphere as well as the diversity within ecosystems.

Species diversity represents the numbers and the degree of variability of families, genera and species. However, only species richness comes to be regarded for purposes of measuring species diversity.

Genetic diversity is the amount of genetic variability occurring within a species, which is the sum total of genetic information contained in the genes of all individual organisms of that species. This is the most important aspect of biodiversity.

Genetic diversity often falls into patterns that characterise subgroups, within a species, which may have distinct economically valued traits. A number of crop plant species have, in addition to the botanical varieties and scientifically recognised cultivated varieties (cultivars), a large number of local genetically different variants over the range of their geographical distribution/cultivation. These, often ambiguously called races or land races, occur in an inestimably large numbers in the case of the widely cultivated crops like rice, wheat, bajra, jowar, etc. The enormity of the problem in handling genetic variability should be evident from the existence of over 1,00,000 varieties of rice, over 15,000 varieties of the common bean and 12,000 of the potato. The genetic variability of cultivated species/varieties and their wild relatives, together forms a continued basic supply of traits for breeding new and improved varieties and for this reason these are called the 'genetic resources' of a country/region. A similar situation, largely unexplored and unexploited, though may be of a lesser magnitude, exists also in other plant species, including the medicinally important ones. A therapeutically

useful lectin (a specific class of protein), from the seed of Jack fruit (*Artocarpus heterophyllus*) showed 2,500 times more activity in a sample from Bangalore, than in a sample from Chennai (Hunter, 1986). This is one aspect of chemical diversity, a component of genetic diversity.

2. CONSERVATION OF BIODIVERSITY

Conservation is the planned management of natural resources, to retain the natural balance, diversity and evolutionary change in the environment (Lincoln et al., 1982). It is a protective measure taken a) to prevent the loss of genetic diversity of a species, b) to save a species from becoming extinct, and c) to protect an ecosystem from damage so as to promote its sustained utilisation. The aims and objectives of biodiversity/species conservation programmes are:

- a) to promote conservation of biodiversity in defined habitats and geographical areas;
- b) to identify components of biodiversity in a region for conservation and sustainable use;
- c) to promote *in situ* conservation and sustainable management of ecosystems, natural habitats and species populations;
- d) to establish and formulate strategies for *ex situ* conservation for the components of biodiversity through an integrated scientific research;
- e) to study the intrinsic and extrinsic factors causing the depletion of species/populations and to formulate and adopt scientifically oriented conservation strategies;
- f) to identify Biodiversity Conservation Regions and 'hot spot' areas (that require urgent measures) in the world for concentrated research and protection;
- g) to promote research in traditional and ethnic knowledge areas on, and utilisation of, natural resources, and to encourage equitable sharing of benefits arising out of utilisation of such knowledge systems;
- h) to promote research on wild relatives, land races and cultivars of cultivated species;
- i) to maintain database systems on economically important groups of plant and animal species as a source information on them;
- j) to evolve guidelines for the management of protected areas so as to enable the policy makers and managers to take effective measures to conserve biodiversity and species; and

k) to disseminate information on the importance of conservation and sustainable utilisation of biodiversity, through popular and scientific publications and other educational programmes.

While referring to the diversity of plants or animals without reference to their ecosystem, it is incorrect to speak of biodiversity, instead of referring to plant diversity or animal diversity, as the case may be.

The Convention on Biodiversity at Rio de Janeiro in 1992 has been the fountain head of all discussions and plans for the conservation of biodiversity the world over.

In order to achieve any or all the objectives of conservation programmes, one must know the habitats, species and other genetic resources that are under threat and those that need protection under the objectives of biodiversity conservation. It is also essential to evaluate the level of threat to each species and the subspecific categories.

3. INTERNATIONAL ORGANISATIONS FOR BIODIVERSITY CONSERVATION

3A. INTERNATIONAL UNION FOR CONSERVATION OF NATURE AND NATURAL RESOURCES (IUCN)--THE WORLD CONSERVATION UNION

The International Union for Conservation of Nature and Natural Resources (IUCN), with its headquarters at Gland, Switzerland, is the most important world body of 74 sovereign states, 105 government agencies, 674 non-governmental organisations and 32 affiliates, that is concerned with the conservation of nature, world wide. The headquarters of the IUCN is situated at Gland, Switzerland. Those interested in conservation should be aware of the activities of the IUCN, its organs and publications.

3B. SPECIES SURVIVAL COMMISSION (SSC)

The Species Survival Commission (SSC) is one of the six volunteer Commissions within the IUCN, with the mission to conserve biological diversity by developing and executing programmes to study, save, restore and manage wisely, the species and their habitats. SSC is the source of information for IUCN on the conservation of species. On behalf of the IUCN, the SSC promotes and delivers its knowledge, advice and policies to those who can influence the implementation of conservation action. The SSC has its headquarters at the IUCN.

Main goals of SSC

The SSC has six main goals:

1. to assess the conservation status of and threats to species world wide, so as to generate recommendations and strategies;
2. to identify conservation priorities for species and their habitats;
3. to promote the implementation of specific recommended actions for the survival of species;
4. to develop and promote policies for the conservation of species and their habitats;
5. to enhance the efforts of individuals working on biodiversity conservation by linking them and providing access to an international forum; and
6. to promote an understanding of the importance of the conservation of species in the well being of people.

The SSC is a force behind the 1997 IUCN Red List of threatened Plants.

3C. CONVENTION ON INTERNATIONAL TRADE IN ENDANGERED SPECIES OF WILD FLORA AND FAUNA (CITES)

CITES and SSC work in co-operation with each other. The SSC's Wildlife Trade Programme provides Parties to CITES, governments and non-governmental organisations (NGOs) with objective, authoritative assessments of biological impacts resulting from commercial trade in endangered species. CITES has established the international legal framework for the prevention of trade in endangered species and for an effective regulation of trade in others. Member states respect the recommendations of CITES presented in CITES Appendices and implement restriction on the trade of the listed species. CITES Appendix I lists species that are threatened while Appendix II includes the species that may become threatened with extinction if trade is not regulated. Those in Appendix III are species that require watching. Depending upon the need, species may be shifted from one to another Appendix. The CITES Appendices are periodically reviewed, at the Conference of the Parties (all those concerned with trade, governments, NGOs, and conservation experts).

3D. TRADE RECORDS ANALYSIS OF FAUNA AND FLORA IN COMMERCE (TRAFFIC)

TRAFFIC is the body that monitors the volume of trade in endangered species and works in co-ordination with CITES and SSC, to assess the impact of trade, the objective being sustainable management of trade.

3E. CONVENTION ON BIOLOGICAL DIVERSITY (CBD)

Another organisation, the Convention on Biological Diversity (CBD), formed at a meeting in Rio de Janeiro in 1992 and came into force, with a membership of 133

countries, in December 1993. CBD aims to protect the world's biological resources from further erosion or at least to slow that rate of erosion down. Till CBD came into force, living organisms were considered a common heritage of the humankind, but CBD accepts them as a sovereign property of the nation states. CBD is to promote conservation of biological diversity, a sustainable use of its components and equitable sharing of the resultant benefits. Thus there is a difference in the objectives of the IUCN and the CBD, though basically both strive to conserve the world's biological resources.

3F. WORLD WIDE FUND FOR NATURE (WWF)

World Wide Fund for Nature is the most publicised conservation organisation with centres in almost every country. There is one in India, WWF-India. For most part, the activities of WWF were concerned with the megafauna, but in recent times plants are getting some attention.

3G. WORLD CONSERVATION MONITORING CENTRE (WCMC)

The World Conservation Monitoring Centre is based in Cambridge, UK. It is a joint venture between the IUCN, the United Nations Environment Programme and World Wide Fund for Nature, all being the partners in the World Conservation Strategy and its successor Caring for Earth.

4. CONTRIBUTORS TO THE 1997 IUCN RED LIST OF THREATENED PLANTS

The following organizations contributed to the 1997 IUCN Red List of Threatened Plants:

World Conservation Monitoring Centre
The Nature Conservancy
Association for Biodiversity Information
National Botanical Institute, South Africa
Smithsonian Institution, Washington
Wildlife Australia
Royal Botanic garden, Edinburgh
Royal Botanic garden, Kew
The New York Botanical Garden

5. AUTHENTIC REFERENCE DOCUMENTS ON BIODIVERSITY AND ITS CONSERVATION

5A. RED LISTS AND RED DATA BOOKS OF THREATENED SPECIES

International Red Data Books of the IUCN were conceived by Peter Scott in 1963, as 'a register of threatened wildlife that includes definitions of degrees of threat'

(Scott et al., 1987). This concept was enthusiastically accepted and resulted in the production of many national and regional Red Data Books and Red Lists for a wide range of plant and animal taxa.

The IUCN separately publishes Red Lists of Threatened Animals and Plants to publicise information on the conservation status of species.

The Red Lists are the most comprehensive and authoritative global surveys of threatened species in existence. They identify taxa that are most threatened, thereby serving as tools to help to set priorities for conservation action and providing baseline information for monitoring status of taxa. The Red Lists provide a framework for more specific information about taxa under threat, such as national or regional lists. They provide conservation strategies and alert regions, nations and communities to taxa of international conservation concern. The Red Lists are the technical resource to international legal instruments and are frequently used to create and strengthen national species protection Laws. The Red Lists are revised periodically.

The latest version of the Red List of Threatened Animals has been released in 1996 and another version is due soon.

The first ever IUCN Red List of Threatened Plants of 1997, containing 33,418 (plus 380 extinct species, a total of 33,798) species names under the threatened category, was released in April 1998, simultaneously from Washington, London, Canberra and Cape Town (Walter and Gillett, 1998). The listed species belong to 369 plant families and 200 countries. The threatened species constitute 13.8 per cent of known species of vascular plants. The publication of this list is a turning point in plant conservation.

5B. RED DATA BOOKS

Red Lists only provide a summary view and lack detailed information for each species. Red Data Books of the IUCN provide in-depth analyses of the conservation status of particular groups of species. Earlier, Red Data Books cited 60,000 plant species as endangered. Certain situations of species make categorisation of their conservation status difficult. For example, the African Violets (*Saintpaulia ionantha*) are the most popular house plants throughout the world. But, a few years ago, an expedition found only three individuals in its wild habitat in Tanzania (Donellan, 1995). The species is certainly endangered in the wild but is abundant in cultivation. Similarly, the Indian Asoka tree (*Saraca asoca*) has definitely become rare in the wild but is a common avenue tree in many places in the country. Often, a distinction needs to be made between taxa that are threatened only in the wild habitats and those which are at total risk. Some species, such as *Tribulus terrestris*, which are under threat in one locality may be abundant in another.

Like several other countries in the world, Red Data Books have been published from India. These lists of threatened plant species have been based on limited quantitative field data and the evaluation of threat was based on data from the entire

range of distribution of the concerned species, but on the records of herbarium specimens of the species, found in different herbaria in the country. Sometimes this criteria becomes suspect as often the most abundant species comes to be sparsely represented in herbaria. Consequently we need to revise the Red Data Books of Plants in India basing on scientific criteria. This work is now being carried out at the Botanical Survey of India the Indira Gandhi Conservation Monitoring Centre associated to the WWF-India, at New Delhi, besides a number of other institutions/botanists. Nevertheless, we should now take the 1997 IUCN Red List of Threatened Plants as the basis and work from there.

5C. CITES APPENDICES

CITES Appendices are of three categories (I, II and III), as detailed earlier. Only those taxa that have been assessed and found to be threatened throughout their range are included. Depending upon the volume of trade and the threat to the taxa on account of trade, CITES Appendices are periodically reviewed in order to provide an actual situation, by adding, shifting a species from one category to another, or deleting species from the Appendices. The current listings in these Appendices were approved in 1997 (Rosser, 1997).

6. SYSTEM OF CATEGORIES OF THREATENED SPECIES

6A. PRE-1994 CATEGORIES OF THREATENED PLANTS

Species are assigned to different categories of threat basing on the degree of threat of extinction they face. The word 'threatened' has no official definition within the IUCN Red List Categories. It is generally understood, however, to include taxa that are Endangered, Vulnerable, Rare or Indeterminate. It should not be confused with the use of the same term by the US Fish and Wildlife Service, and in other countries, where it may have a legal definition.

The 1997 IUCN Red List is based on the following categories of threat:

Extinct (Ex): Taxa that not definitely located in the wild during the past 50 years.

Extinct/Endangered (Ex/E): Taxa that are suspected of having recently become Extinct.

Endangered (E): Taxa in danger of extinction and whose survival is unlikely if the causal factors continue operating.

Vulnerable (V): Taxa believed likely to move into the 'Endangered' category in the near future if the causal factors continue operating.

Rare (R): Taxa with small world populations that are not at present 'Endangered' or 'Vulnerable', but are at risk.

Indeterminate (I): Taxa that are known to be Endangered, Vulnerable or Rare but where there is not enough information to say which of the three categories is appropriate for the species.

6B. IUCN 1994 RED LIST CATEGORIES

Over a period of time a certain amount of confusion has crept in, in the use of the terms denoting threat. The term Extinct has come to be used in a local context (instead of global) 'as the disappearance of a species from a given habitat or biota, not precluding subsequent recolonisation from elsewhere' (Lincoln et al., 1982). The terms 'Endangered' and 'Threatened' have come to be used interchangeably, a confusion that appears to be very wide spread, as the London Zoo Authorities have accused even the World Society for the Protection of Animals (WSPA) and the Born Free Foundation (BFF) of such confusion (Donellan, 1995). Aware of this situation, the SSC has reviewed the terminology and published the IUCN Red List Categories (IUCN, 1994), the use of which is mandatory. The Red List of Threatened Animals of 1996 is totally according to these guidelines. Species (or subspecific taxa) facing any threat of extinction should be assigned to one of the following categories on the basis of detailed and specific criteria, given by the IUCN (IUCN, 1994). The following is only abstract of explanation and for details one should consult IUCN (1994) and Walter and Gillett (1998).

I. Evaluated

A. If adequate data are available:

- a) **Extinct (EX):** when there is no reasonable doubt that the last individual of the taxon has died.
- b) **Extinct in the Wild (EW):** when a taxon is known only to survive in cultivation, well outside the past range.
- c) **Threatened:**
 - i) **Critically Endangered (CR):** when a taxon is facing an extremely high risk of extinction in the wild in the immediate future.
 - ii) **Endangered (EN):** when a taxon is not critically endangered but is facing a very high risk of extinction in the wild in the near future.
 - iii) **Vulnerable (VU):** when a taxon is facing a high risk in the wild in the medium term future.
- d) **Lower Risk (LR):** when it has been evaluated, does not satisfy the criteria of threat under the above mentioned categories.
 - i) **Conservation Dependent (cd):** when a taxon is the focus of a conservation programme, the cessation of the programme would place the taxon in the threatened categories.
 - ii) **Near Threatened (nt):** when a taxon does not qualify for conservation dependent, but which is close to qualifying for Vulnerable.

iii) **Least Concern (lc):** when a taxon does not qualify for Conservation Dependent, nor near Threatened.

B. Data Deficient (DD): when data are deficient to make an assessment of the risk of extinction a taxon faces.

II. Not Evaluated (NE): when a taxon has not yet been assessed against the criteria.

Application of the criteria of the IUCN will certainly show up that a very large number of the Indian plant species fall under one or the other category, but we do not have any solid quantitative data to support any such move right now. *Hubbardia heptaneuron* Bor (Poaceae) was collected for the first and the only time, and described, from the water-sprayed rocks under the Gerasoppa water falls in Karnataka in the early 1930s. A hydroelectric project involving the river has changed the habitat drastically and irreversibly and all subsequent efforts to collect this species, have failed. Till recently, this species was represented only by a couple of herbarium specimens deposited by the original author in the Herbarium of the Royal Botanic Garden at Kew, England. *Hubbardia heptaneuron* was considered as extinct (EX) but it has been rediscovered last year in Maharashtra. *Paphiopedilum druryi*, an endemic Indian species, was first reported in 1865 and was not collected again till 1974, and once more in 1992 from the wild. This species falls under the category of Critically Endangered (ER). Most of the Indian taxa fall into either Data Deficient (DD) or Not Evaluated (NE), which does not mean that they are not at risk, but a very sad and inadequate situation from the scientific point of view.

In view of several suggestions for the modification of even 1994 categorisation, IUCN is in the process of recommending a revised version of Red List Categories (Anonymous, 1999).

6C. CITES APPENDICES

CITES periodically reviews the situation of trade in threatened plants and animals and publishes lists of trade restricted species in three Appendices, the degree of restriction of trade being most severe for those in the Appendix I. Some examples are given below:

Appendix I: *Soussurea lappa*
Cycas beddomei

Appendix II: *Cyathea* species (tree ferns)
Podophyllum hexandrum
Rauvolfia serpentina
Dioscorea deltoidea
Nardostachys grandiflora
Picrorrhiza kurrooa
Taxus wallichiana

Appendix III: *Meconopsis regia*
Cycas pectinata

CITES and TRAFFIC provide the means for an international control of trade in the listed organisms but trade in them within a country is the responsibility of the respective Governments.

7. THREAT STATUS OF INDIAN VASCULAR PLANT SPECIES

7A. THREAT STATUS AT THE GLOBAL AND INDIAN LEVELS

The following is a comparative statement of the threat status of vascular plant species in India and at the global level as per the 1997 IUCN Red List of Threatened Plants:

Table 1

	Global	India
Extinct (Ex)	380	19
Extinct/Endangered (Ex/E)	371	41
Endangered (E)	6,522	152
Vulnerable (V)	7,951	102
Rare (R)	14,505	251
Indeterminate (I)	4,070	690
Total under threat	33,418	1,236
Total number of species	2,42,013	16,000
Per cent under threat	13.8	7.7

- Note: 1. The total number of threatened species does not include the Extinct taxa, 380 global and 19 in India.
2. The total number of vascular plant species is at considerable variance from the known numbers both at the global and the Indian levels.
3. There is some discrepancy in the total number of Indian species under threat between the IUCN and our list.

7B. DEGREE OF THREAT TO GENERA AND SPECIES IN DIFFERENT FAMILIES IN INDIA

The numerical distribution of threatened taxa in different families of vascular plants in India is given in Table 2.

Acanthaceae, Annonaceae, Asclepiadaceae, Compositae, Euphorbiaceae, Labiate, Leguminosae, Rubiaceae, Umbelliferae, Araceae, Gramineae, Orchidaceae and Palmae appear to be under greater threat than others. In these families both the genera and species under threat are in double digits, the highest being in Orchidaceae with 46 genera and 105 species. If the actual number of genera and species in different families are accurately known, meaningful percentages can be calculated. Though the sizes of the families and the actual numbers of taxa under threat are the parameters, the actual numbers may be misleading. If a family with one genus and one species is under threat, it will be an alarming 100 per cent threat. There should be a rational assessment of the degree of threat for the families, genera and species, which requires a lot more of dependable data than now available.

8. READING THE LISTS

The families in the 1997 IUCN Red List are according to the system of classification of Cronquist (1981) and as annotated by Brummitt (1992). The names of authors of plant names and abbreviations are as per Brummtt and Powell (1992).

There are four entries for a species in the first line and another four each in the second and subsequent lines. The following is an explanation for these entries:

1. The first entry is an abbreviation (Ex/E/V/R/I) that indicates the global threat status of the species, whose name follows.
2. The second entry is the status of the species in the CITES Appendices (I/II), when relevant. These categories are italicised (*I*, *II*) if the genus is also included in the corresponding Appendix. They are underscored (I, II), if the whole family is included in the Appendices.
3. The name of the species and the authority.
4. The last entry, which is a number, is the literature reference to the source(s) of the scientific name.
5. The first abbreviation in the second line (and subsequent lines below a species entry) indicates the threat status of the species in the region specified.
6. The number is the literature reference to the source of local threat status.
7. The local distribution follows item 6.
8. The last number is the literature reference to distribution data source.
9. Where no reference has been mentioned, the species has been included on the authority of Walter & Gillett (1998).

All references cited by numbers in the lists are given separately under 'References', quoting the same numbers, and placed together after the lists.

9. REFERENCES

(Only those publications cited in the Introduction are given here. The references cited by numbers in the lists are given together at the end of the list referring by the same number as in the lists.)

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TABLE 2

**Family-wise numerical distribution of threatened genera and species
of vascular plants in India**

ORDER	FAMILY	GENERA	SPECIES
Lycopodiopsida			
	Isoetaceae	1	3
	Selaginellaceae	1	2
Pteridopsida			
	Adiantaceae	1	1
	Cyatheaceae	1	2
	Dennstaedtiaceae	1	2
	Dryopteridaceae	3	3
	Gleicheniaceae	1	1
	Lomariopsidaceae	1	3
	Marattiaceae	1	1
	Polypodiaceae	3	3
	Thelypteridaceae	7	9
	Woodsiaceae	2	3
Pinopsida			
	Cephalotaxaceae	1	2
	Pinaceae	2	3
	Taxaceae	1	1
Cycadopsida			
	Cycadaceae	1	1
Magnoliopsida			
	Acanthaceae	18	29
	Aceraceae	1	4
	Actinidiaceae	1	1
	Amaranthaceae	2	2
	Anacardiaceae	4	8
	Annonaceae	14	26
	Apocynaceae	2	2
	Aquifoliaceae	1	4
	Araliaceae	2	2
	Aristolochiaceae	2	2
	Asclepiadaceae	13	46

	Balsaminaceae	1	37
	Begoniaceae	1	18
	Berberidaceae	2	12
	Bombacaceae	1	1
	Boraginaceae	5	6
	Burseraceae	1	1
	Campanulaceae	4	5
	Capparaceae	2	8
	Caryophyllaceae	6	12
	Celastraceae	5	13
	Chrysobalanaceae	2	3
	Combretaceae	1	1
	Compositae	21	52
	Connaraceae	2	3
	Convolvulaceae	3	6
	Crassulaceae	2	3
	Cruciferae	6	7
	Cucurbitaceae	5	7
	Dichapetalaceae	1	1
	Dipterocarpaceae	4	7
	Elaeagnaceae	1	1
	Elaeocarpaceae	1	5
	Ericaceae	2	10
	Euphorbiaceae	23	31
	Flacourtiaceae	2	2
	Gentianaceae	3	8
	Geraniaceae	1	1
	Gesneriaceae	3	7
	Guttiferae	4	10
	Hydrangeaceae	1	1
	Icacinaceae	3	3
	Ixonanthaceae	1	1
	Labiatae	10	25
	Lauraceae	7	21
	Leeaceae	1	3
	Leguminosae	32	78
	Lentibulariaceae	1	1
	Linaceae	1	1
	Loganiaceae	1	2
	Lythraceae	2	7
	Magnoliaceae	3	4

	Malpighiaceae	1	3
	Malvaceae	3	7
	Melastomataceae	4	15
	Meliaceae	1	2
	Menispermaceae	5	7
	Moraceae	1	2
	Myristicaceae	3	3
	Myrsinaceae	4	8
	Myrtaceae	5	25
	Nepenthaceae	1	1
	Olacaceae	2	2
	Oleaceae	3	5
	Oliniaceae	1	2
	Onagraceae	1	1
	Papaveraceae	3	4
	Piperaceae	1	3
	Pittosporaceae	1	1
	Podostemaceae	4	4
	Polygalaceae	1	1
	Primulaceae	2	5
	Proteaceae	1	2
	Ranunculaceae	9	18
	Rhamnaceae	1	2
	Rosaceae	5	9
	Rubiaceae	29	100
	Rutaceae	3	3
	Sabiaceae	1	1
	Sapindaceae	1	1
	Sapotaceae	3	7
	Saxifragaceae	1	1
	Schisandraceae	1	2
	Scrophulariaceae	7	10
	Solanaceae	2	2
	Sterculiaceae	5	7
	Symplocaceae	1	3
	Theaceae	3	3
	Tiliaceae	1	1
	Ulmaceae	1	1
	Umbelliferae	12	18
	Urticaceae	1	1
	Valerianaceae	1	1

	Verbenaceae	3	3
	Violaceae	2	3
	Viscaceae	2	2
	Vitaceae	4	6
Liliopsida			
	Alismataceae	1	1
	Alliaceae	1	4
	Amaryllidaceae	2	3
	Anthericaceae	1	3
	Aponogetonaceae	1	2
	Araceae	10	33
	Asparagaceae	1	4
	Burmanniaceae	1	1
	Colchicaceae	1	3
	Commelinaceae	7	16
	Convallariaceae	4	4
	Cyperaceae	7	23
	Dioscoreaceae	1	6
	Eriocaulaceae	1	13
	Gramineae	40	69
	Hyacinthaceae	4	9
	Hydrocharitaceae	1	1
	Iridaceae	1	2
	Juncaceae	2	2
	Lemnaceae	1	2
	Liliaceae	2	4
	Marantaceae	2	3
	Orchidaceae	46	105
	Palmae	11	22
	Pandanaceae	1	1
	Smilacaceae	1	1
	Zingiberaceae	9	19
Total		573	1255

Lycopodiopsida

Isoetaceae

- R** *Isoetes bilaspurensis* Panigr. 11350
R 11350 India – Madhya Pradesh 11350
- Ex** *Isoetes dixitii* Shende 11352
Ex 11352 India – Maharashtra (Panchgani) 11352
- Ex** *Isoetes sampathkumarnii* L.N.Rao 11353
Ex 11353 India – Karnataka 11353

Selaginellaceae

- E** *Selaginella adunca* A.Br.ex Hieron. 11494
E India – Himachal Pradesh (Janusar, Simla)
11358
- E India – Uttar Pradesh 11358
- E** *Selaginella cataractarum* Alston 11494
E India – Kerala 11359
- Ex 18228 India – Tamil Nadu (Silver Cascade,
Kodaikanal) 11359

Pteridopsida

Adiantaceae

- R** *Coniogramme indica* Fee 11266
R India – Manipur (Hongua Hill, Ukhru) 11266

BOTANICAL SURVEY OF INDIA

R India – Meghalaya 11266

Cyatheaceae

V II *Cyathea albosetacea* (Bedd.) Copel. 14708

V 13883 India – Nicobar Is. (Great Nicobar, Kamotra Is.) 11273

E II *Cyathea nilgirensis* Holttum 14708

E India – Kerala (Palghat; Silent Valley) 11347
E India – Tamil Nadu 11347

Dennstaedtiaceae

R *Lindsaea malabarica* (Bedd.) Baker ex C. Chr. 11494

R 13883 India – Kerala (Peermade; Silent Valley)
11355

R 13883 India – Madhya Pradesh (Bastar) 11355

R 13883 India – Tamil Nadu (Salem; Yercaud; Shevaroy)
11355

R *Lindsaea tenera* Dryander 5376

R India – Andaman Is. (South & Little Andamans)
11356

R India – Nicobar Is. (Katchal & Great Nicobar)
11356

Dryopteridaceae

V *Dryopteris gamblei* (Hope) C. Chr. 14708

V 14708 India – Meghalaya 14708

RED LIST OF THREATENED VASCULAR PLANT SPECIES IN INDIA

V 14708 India – Uttar Pradesh 14708

V 14708 India – West Bengal 14708

Ex *Lastreopsis wattii* (Bedd.) Tagawa 11494

Ex 11494 India – Manipur 11494

Ex/E *Polystichum wattii* (Bedd.) C. Chr. 14708

Ex/E 14708 India – Manipur 14708

Gleicheniaceae

V *Dicranopteris linearis* (Burm.f.) Underw. var.

sebastiana Panigr. & Dixit 14782

V 14782 India – Tamil Nadu 14782

Lomariopsidaceae

R *Elaphoglossum beddomei* Sledge 13883

R 13883 India – Tamil Nadu (Nilgiri and Anamally mountains) 13883

E *Elaphoglossum nilgiricum* Kraj. ex Sledge 11494

E 11494 India – Kerala (Silent Valley) 11494

E 11494 India – Tamil Nadu (Nilgiri Hills) 11494

V *Elaphoglossum stigmatolepis* (Fee) Moore 13883

V 13883 India (Nilgiri & Pulney Hills) 13883

Marattiaceae

V *Christensenia assamica* (Griff.) Ching 13883

V 5374 India – Arunachal Pradesh 5374

V 13883 India – Assam 13883

BOTANICAL SURVEY OF INDIA

Polypodiaceae

- E *Dendroglossa minutula* (Fee) Copel. 11494
E 11494 India – Meghalaya (Khasi hills) 11494
V *Drynaria meeboldii* Rosenst. 13883
V 13883 India – Manipur 13883
E *Holcosorus bisulcatus* (Hook.) Ching 14708
E India – Arunachal Pradesh 11258

Thelypteridaceae

- V *Christella clarkei* (Bedd.) Holttum 14782
V 14782 India – Sikkim 14782
V *Christella kaumaunica* Holttum 14782
V 14782 India – Uttar Pradesh 14782
R *Coryphopteris didymochlaenoides* (C. B. Clarke)
Holttum 14782
R 14782 India – Meghalaya 14782
R *Cyclogramma squamaestipes* (C. B. Clarke) Tagawa 14782
R 14782 India – Sikkim 14782
R *Metathelypteris decipiens* (C. B. Clarke) Ching 14782
R 14782 India – Meghalaya (Khasi hills) 14782
R 14782 India – West Bengal (Darjeeling Himalayas)
14782
R *Oreopteris elwesii* (Baker) Holttum 13883
R 13883 India – Sikkim (near Lachen) 13883
E *Pseudocyclosorus gamblei* Holttum & Grimes 14782
E 14782 India – Tamil Nadu (Nilgiri & Palni Hills) 14782

RED LIST OF THREATENED VASCULAR PLANT SPECIES IN INDIA

- E** *Pseudocyclosorus griseus* (Baker) Holttum & Grimes 14782
E 14782 India – Tamil Nadu 14782
V *Stenogramma himalaica* (Ching) K. Iwats. 14782
V 14782 India (NW Himalayas) 14782

Woodsiaceae

- E** *Athyrium atratum* Bedd. 11494
E 11494 India – Manipur 11494
R *Athyrium duthei* (Bedd.) Bedd. 14708
R 14708 India – Sikkim 14708
R 14708 India – Uttar Pradesh 14708

Ex/E *Woodsia andersonii* (Bedd.) Christ 11262

- Ex/E India – Uttar Pradesh (Kali Valley, Kumaon)
11262

Pinopsida

Cephalotaxaceae

- V** *Cephalotaxus mannii* Hook.f. 17617
V 20761 India – Assam (Mishmi Hills) 18270
V 18270 India – Meghalaya (Khasi Hills; Jaintia
Hills) 18270
V 18270 India – Nagaland (Naga Hills) 18270
V *Cephalotaxus oliveri* Masters 17617
V 20761 India (eastern) 20761

BOTANICAL SURVEY OF INDIA

Pinaceae

- V *Picea brachytyla* (Franch.) Pritzl var. *complanata*
(Masters) Cheng ex Rehder 18270
V 18270 India (north-east) 18270
V 18270 India – Arunachal Pradesh 16386
R *Picea spinulosa* (Griff.) Henry 18270
R 18270 India – Sikkim (east Himalaya) 10777
R *Pinus gerardiana* Wall. ex D. Don 18270
R 18270 India – Jammu & Kashmir 18270

Taxaceae

- V *Amentotaxus assamica* D.K. Ferguson 20495
V 18270 India – Arunachal Pradesh 20495

Cycadopsida

Cycadaceae

- E I *Cycas beddomei* Dyer 11494
E 20016 India – Andhra Pradesh 11494

Magnoliopsida (dicots)

Acanthaceae

- E *Adhatoda beddomei* C.B. Clarke 20263

RED LIST OF THREATENED VASCULAR PLANT SPECIES IN INDIA

- E** 20263 India – Kerala (Travancore Hills) 20263
- I** *Andrographis beddomei* C.B. Clarke
- I** India – Andhra Pradesh
- I** *Andrographis stellata* C. B. Clarke 2268
- I** India – Tamil Nadu (Nilgiri Hills) 2268
- R** *Barleria gibsonioides* Blatt. & McCann 13883
- R** 13883 India – Maharashtra (Panchgani, Satara Dist.)
 13883
- I** *Barleria prionitis* L. var. *diacantha* Blatt. &
 M. Hallb. 7771
- I** India – Rajasthan 7771
- E** *Dicliptera abuensis* Blatt. 11494
- E** 11494 India – Rajasthan (Mt Abu, Dhobi Ghats) 11494
- I** *Dicliptera beddomei* C.B. Clarke
- I** India – Andhra Pradesh (Nallamalai Hills; Kurnool)
- I** *Dicliptera ghatica* Santapau 13883
- I** 13883 India – Maharashtra (Meroli, Khandala ghats, Pune
 Dist.) 13883
- I** *Didyplosandra andersonii* (Bedd.) Bremek.
- I** India – Tamil Nadu
- I** *Hygrophila pinnatifida* (Dalzell) Sreemadh.
- I** India – Karnataka
- V** *Hypoestes andamanensis* Thoth. 14782
- V** 14782 India – Andaman Is. 14782
- R** *Hypoestes lanata* Dalzell 14782
- R** 14782 India 14782
- I** *Justicia salsolooides* T. Anderson
- I** India – Karnataka (Carnatic & Mysore)

BOTANICAL SURVEY OF INDIA

- R** *Lepidagathis barberi* Gamble 14782
R 14782 India (Southern Peninsular India) 14782
- I** *Lepidagathis diffusa* C. B. Clarke 14782
I 14782 India 14782
- R** *Mackenziea caudata* (T. Anderson) Ramam. 13883
R 13883 India – Karnataka (South Canara; Coorg)
13883
- R** 13883 India – Kerala (Wynaad & Travancore, southwestern
Ghats) 13883
- Ex/E** *Neuracanthus neesianus* C. B. Clarke 13883
Ex/E 13883 India – Tamil Nadu 13883
- I** *Nilgirianthus campanulatus* (Wight) Bremek.
I India - Karnataka (Coorg)
- I** *Nilgirianthus papillosum* (T. Anderson) Bremek. 2268
I India - Tamil Nadu (Nilgiri Hills) 2268
- I** *Phlebophyllum canaricum* (Bedd.) Bremek.
I India - Karnataka (South Canara)
- E** *Phlebophyllum jeyaporensis* (Bedd.) Bremek. 11494
E 11494 India - Andhra Pradesh 11494
E 11494 India - Madhya Pradesh (Bastar) 11494
E 11494 India – Orissa (Kalahandi & Koraput)
11494
- I** *Phlebophyllum lanatum* (Nees) Bremek.
I India – Karnataka (Mysore)
I India – Tamil Nadu (Sispara, Nilgiri Hills)
- I** *Rungia linifolia* Nees
I India – Karnataka
- E** *Santapaua madurensis* N.P. Balakr. ex Subr. 13883

RED LIST OF THREATENED VASCULAR PLANT SPECIES IN INDIA

- E** 13883 India- Tamil Nadu 13883
- I** *Stenosiphonium setosum* T. Anderson
- I** India – Karnataka (Mysore)
- I** *Strobilanthes andamanensis* Bor 7771
- I** India – Andaman Is. 7771
- E** *Strobilanthes hallbergii* Blatt. 11494
- E** 11494 India – Rajasthan (Mt Abu, Dhobi Ghats)
11494
- I** *Strobilanthes urceolaris* Gamble
- I** India – Tamil Nadu (Nilgiri & Palani Hills)
- I** *Thunbergia bicolor* (Wight) Lindau
- I** India – Tamil Nadu (Nilgiri Hills)

Aceraceae

- V** *Acer caesium* Wall. ex Brandis 7731
- V** 11494 India – Himachal Pradesh 11494
- V** 11494 India – Jammu & Kashmir 11494
- V** 11494 India – Uttar Pradesh 11494
- I** *Acer molle* Paxton
- I** India (West Himalaya)
- E** *Acer oblongum* Wall. ex DC. var. *membranaceum*
Banerji 11494
- E** 11494 India – Uttar Pradesh 11494
- E** *Acer oblongum* Wall. ex DC. var. *microcarpum*
Hiern 11494
- E** 11494 India – Arunachal Pradesh 11494

Actinidiaceae

I *Saurauia griffithii* Dyer

I India – Arunachal Pradesh

I India – Sikkim

Amaranthaceae

R *Achyranthes coynei* Santapau 13883

R 13883 India – Maharashtra (Khandala, Pune)

13883

I *Aerva wightii* Hook.f. 14782

I 14782 India – Kerala (Tirunelveli hills) 18341

I 14782 India – Tamil Nadu (Tirunelveli Hills)

18341

Anacardiaceae

E *Buchanania barberi* Gamble 13883

E 13883 India – Kerala (Travancore) 13883

I *Buchanania lanceolata* Wight

I India – Kerala (Quilon, Travancore)

I *Buchanania platyneura* Kurz 14782

I 14782 India – Andaman Is. 14782

I 14782 India – Nicobar Is. 14782

V *Mangifera andamanica* King 7739

V 14782 India – Andaman Is. 7739

I *Mangifera khasiana* Pierre 7739

RED LIST OF THREATENED VASCULAR PLANT SPECIES IN INDIA

- I India – Assam (Khasi hills) 7739
E *Nothopedia aureo-fulva* Bedd.ex Hook. f. 13883
E 13883 India – Tamil Nadu (Tirunelveli Hills)
13883
I *Nothopedia colebrookiana* (Wight) Blume
I India – Tamil Nadu
I *Semecarpus auriculata* Bedd. 5379
I India – Kerala (Western Ghats) 5379
I India – Tamil Nadu (Muthukuzhivayal)
5379

Annonaceae

- R *Artobotrys nicobaricus* D. Das 7771
R 14782 India – Nicobar Is. 14782
E *Desmos viridiflorus* (Bedd.) Saff. 11494
E 11494 India – Kerala 11494
E 11494 India – Tamil Nadu 11494
R *Goniothalamus rhynchantherus* Dunn 11494
R 11494 India – Kerala (Trivandrum District)
11494
R 11494 India – Tamil Nadu (Tirunelveli District)
11494
I *Goniothalamus simonsii* Hook.f. & Thomson
I India – Meghalaya
I *Goniothalamus wynadensis* Bedd.
I India – Tamil Nadu
V *Miliusa nilagirica* Bedd. 13883

BOTANICAL SURVEY OF INDIA

- V 13883 India – Tamil Nadu 13883
- I *Miliusa tectona* Hutch. ex Parkinson 7771
I 7771 India – Andaman Is. 7771
- R *Mitrophora andamanica* Thoth. & Das 7771
R 14782 India – Andaman Is. 14782
- I *Orophea salicifolia* Hutch. 7771
I 7771 India – Andaman Is. 7771
- I *Orophea thomsoni* Bedd.
I India – Tamil Nadu
- I *Orophea torulosa* Hutch. 7771
I India – Andaman Is. 7771
- I *Orophea uniflora* Hook.f. & Thomson 13883
I India – Karnataka
I India – Kerala
I India – Tamil Nadu
- V *Phaeanthus malabaricus* Bedd. 14782
V 14782 India – Kerala 14782
- R *Polyalthia rufescens* Hook.f. & Thomson 14782
R 14782 India – Kerala 14782
R 14782 India – Tamil Nadu 14782
- R *Popowia beddomeana* Hook.f. & Thomson 11494
R 11494 India – Kerala 11494
R 11494 India – Tamil Nadu 11494
- I *Popowia parvifolia* Kurz 7771
I India – Nicobar Is. 7771
- R *Pseuduvaria prainii* (King) Merr. 14782
R 14782 India – Andaman Is. 14782
R 14782 India – Nicobar Is. 14782

RED LIST OF THREATENED VASCULAR PLANT SPECIES IN INDIA

Ex/E *Sageraea grandiflora* Dunn 11494

Ex/E 11494 India – Kerala 11494

I *Sageraea laurifolia* (Grah.) Blatt.

I India – Karnataka (Concan)

I India – Kerala

I India – Tamil Nadu

I *Sageraea listeri* King var. *andamanica*

Chatterjee 7771

I India – Andaman Is. 7771

E *Trivalvaria kanjilalii* D. Das 11494

E 11494 India – Meghalaya 11494

I *Unona longiflora* Roxb.

I India – Meghalaya (Tura Peak & Nongkhylliem R)

E *Uvaria eucincta* Bedd.ex Dunn 13883

E 13883 India – Orissa 7771

I *Uvaria hamiltonii* Hook.F. & Thomson var. *kurzii*

King 7771

I India – Andaman Is. 7771

I *Uvaria lurida* Hook.f. & Thomson

I India – Meghalaya

R *Uvaria nicobarica* Raizada & Sahni 7771

R 14782 India – Nicobar Is. 14782

Apocynaceae

R *Rauvolfia beddomei* Hook.f.

R 18228 India – Kerala (Travancore Hills) 18228

I India – Tamil Nadu (Tirunelveli Hills)

BOTANICAL SURVEY OF INDIA

- I *Wrightia dolichocarpa* Bahadur & Bennet
I India – Goa, Daman & Diu (Nagar Haveli)

Aquifoliaceae

- I *Ilex embeloides* Hook.f.
I India – Meghalaya (Khasi hills)
Ex/E *Ilex gardneriana* Wight 14782
Ex/E 14782 India – Tamil Nadu (Sispara, Nilgiri)
14782
E *Ilex khasiana* Purakaystha
E India – Meghalaya (Khasi Hills) 7771
I *Ilex venulosa* Hook.f.
I India – Arunachal Pradesh (Khasi hills)

Araliaceae

- I *Merrilliopanax cordifolia* Sastry
I India – Arunachal Pradesh (Subansiri)
I *Schefflera bourdillonii* Gamble 21173
I India - Kerala (Travancore Hills)

Aristolochiaceae

- I *Apama barberi* Gamble
I India – Tamil Nadu
V *Thottea barberi* (Gamble) Ding Hou 13883
V 13883 India - Tamil Nadu (Tirunelveli) 13883

RED LIST OF THREATENED VASCULAR PLANT SPECIES IN INDIA

Asclepiadaceae

I *Brachystelma bourneae* Gamble

I India – Tamil Nadu (Madurai)

I *Caralluma diffusa* (Wight) N.E. Br.

I India – Kerala (Travancore Hills)

I India – Tamil Nadu (Coimbatore Hills)

V II *Ceropegia angustifolia* Wight 13883

V 13883 India – Meghalaya 13883

R II *Ceropegia attenuata* Hook. 11494

R 20211 India – Karnataka 11494

R 20211 India – Maharashtra (Thane; Raigadh; Pune
Dist.) 11494

E II *Ceropegia barnesii* Bruce & Chatterjee 11494

E 20211 India – Karnataka (South Canara) 11494

E 20211 India - Tamil Nadu (Nilgiri Hills) 11494

R II *Ceropegia beddomei* Hook.f. 11494

R 20211 India – Kerala (Trivandrum; Ponmudi; Idukki)
11494

V II *Ceropegia bulbosa* Roxb. 20202

V 20273 India (Punjab, West Peninsula) 8754

V 20273 India – Uttar Pradesh 8754

I II *Ceropegia decaisneana* Wight var. *brevicollis*

(Hook.f.) H. Huber 20064

I India – Kerala

I India – Tamil Nadu

E II *Ceropegia evansii* McCann 11494

E 20211 India – Maharashtra (Khandala, Pune)

11494

BOTANICAL SURVEY OF INDIA

E II *Ceropegia fantastica* Sedgw. 11494

- E 20211 India – Goa, Daman & Diu 11494
E 20211 India – Karnataka (Sulgeri, North Kanara)
11494

R II *Ceropegia fimbriifera* Bedd. 11494

- R 20211 India – Karnataka 11494
R 20211 India – Kerala (Travancore Hills) 10178
R 20211 India – Tamil Nadu 11494

E II *Ceropegia hookeri* C. B. Clarke ex Hook.f. var.

- hookeri* 10260
E 13883 India – Sikkim 13883

E II *Ceropegia huberi* Ansari 11494

- E 20211 India – Maharashtra (Varadha Ghat; Susale Island;
Amba Ghat) 20266

I II *Ceropegia intermedia* Wight. var. *wightii*

- Hook.f. 10260
I India – Tamil Nadu

R II *Ceropegia jainii* Ansari & Kulk. 10511

- R 20211 India – Maharashtra 10511

E II *Ceropegia lawii* Hook.f. 11494

- E 20211 India – Maharashtra (Konkan,
Harishchandragad) 11494

R II *Ceropegia maccannii* Ansari 10512

- R 20211 India – Maharashtra 10512

Ex/EII *Ceropegia maculata* Bedd. 13883

- Ex/E 13883 India – Kerala 13883
Ex/E 13883 India – Tamil Nadu 13883

E II *Ceropegia mahabalei* Hemadri & Ansari 20064

RED LIST OF THREATENED VASCULAR PLANT SPECIES IN INDIA

E 20211 India – Maharashtra 13883

R II *Ceropegia media* (Huber) Ansari 20064

R 20211 India – Maharashtra 20204

R II *Ceropegia noorjahaniae* Ansari 20064

R 20211 India 13883

R 20211 India – Maharashtra (Panchgani Ghat, Satara District) 13883

R II *Ceropegia oculata* Hook. var. *occulta* 20064

R 11494 India – Maharashtra (Pune; Ratnagiri; Raigad) 11494

E II *Ceropegia odorata* Nimmo ex Hook.f. 10171

E 20211 India – Gujarat (Pavagadh Hill) 11494

E 20211 India – Maharashtra (Melghat) 11494

E 20211 India – Rajasthan (Mt Abu) 11494

E II *Ceropegia omissa* Huber 11494

E 20211 India – Tamil Nadu (Sengalteri, Tirunelvelly) 11494

E II *Ceropegia panchganiensis* Blatt. & McCann 10506

E 20211 India – Maharashtra (Panchgani; Lingmala) 10506

R II *Ceropegia pusilla* Wight & Arn. 11494

R 20211 India – Karnataka (Mysore District) 11494

R 20211 India – Tamil Nadu 11494

R II *Ceropegia rollae* Hemadri 20211

R 20211 India – Maharashtra 13883

E II *Ceropegia sahyadrica* Ansari & Kulk. 20211

E 20211 India – Maharashtra (Pune & Sindhudurg

BOTANICAL SURVEY OF INDIA

District) 11494

R II *Ceropogia santapaui* Wadh. & Ans. 20064

R 20211 India – Maharashtra (Pune; Satara; Ratnagiri)
13883

R II *Ceropogia spiralis* Wight 11494

R 20211 India – Andhra Pradesh 11494
R 20211 India – Karnataka 11494
R 20211 India – Kerala 11494
R 20211 India – Tamil Nadu 11494

E II *Ceropogia vincaeifolia* Hook. 20206

E 20211 India – Maharashtra (Thane; Pune; Satara)
19976

I *Dischidia rafflesiana* Wall.

I India – Assam

E II *Frerea indica* Dalzell 11494

E 11494 India – Maharashtra (Junnar & Purandhar
hills) 11494

I *Gymnema elegans* Wight & Arn.

I India – Tamil Nadu

R *Gymnema khandalense* Santapan 14782

R 14782 India – Maharashtra 14782

I *Hoya lobii* Hook.f.

I India – Meghalaya

R *Marsdenia raziana* Yog. & Subr. 13883

R 13883 India – Karnataka (Chikmagalur dist.)
13883

I *Oianthus beddomei* Hook.f.

I India – Karnataka

RED LIST OF THREATENED VASCULAR PLANT SPECIES IN INDIA

- I** India – Kerala (Wynaad)
Ex/E *Oianthus deccanensis* W.A. Talbot 11494
Ex/E 11494 India – Maharashtra 11494
- I** *Oianthus disciflorus* Hook.f. 1170
I India – Andhra Pradesh (Kurnool) 1170
I India – Karnataka (North Canara) 1170
- R** *Seshagiria sahyadrica* Ansari & Hemadri 13883
R 13883 India – Maharashtra 13883
- I** *Streptocaulon kleinii* Wight & Arn.
I India (Deccan Peninsula)
- R** *Toxocarpus beddomei* Gamble 14782
R 14782 India – Kerala (Palghat Hills) 14782
R 14782 India – Tamil Nadu 14782
- E** *Toxocarpus longistigma* (Roxb.) Wight & Arn. ex Steud. 11494
E 11494 India – Andhra Pradesh 11494
- V** *Toxocarpus palghatensis* Gamble
V 13883 India – Kerala (Palghat Hills) 13883
- E** *Utleria salicifolia* Bedd. 14782
E 14782 India – Kerala 14782
E 14782 India – Tamil Nadu 14782

Balsaminaceae

- I** *Impatiens acaulis* Arn.
I India – Karnataka (Concan)
I India – Kerala (Malabar)
I India – Tamil Nadu (Nilgiri)

BOTANICAL SURVEY OF INDIA

- I *Impatiens aliciae* C.E.C. Fisch.
I India – Kerala (Travancore)
- Ex/E *Impatiens anaimudica* C.E.C. Fisch. 14782
Ex/E 14782 India – Kerala (Anaimudi) 14782
- I *Impatiens barberi* Hook.f.
I India – Karnataka (Cadamany)
- I *Impatiens cochinica* Hook.f.
I India – Kerala (Kavalay, Cochin)
- I *Impatiens coelotropis* C.E.C. Fisch.
I India – Kerala (Anaimudi)
- I *Impatiens concinna* Hook.f.
I India – Kerala (Malabar)
- I *Impatiens crenata* Bedd
I India – Tamil Nadu
- I *Impatiens dassysperma* Wight
I India – Karnataka (Mysore hills)
I India – Tamil Nadu (Courtallum, Tirunelveli)
- I *Impatiens debilis* Turcz. 2268
I India – Tamil Nadu (Nilgiri Hills) 2268
- I *Impatiens dendricola* C.E.C. Fisch.
I India – Karnataka (Thandiadumolu, Coorg)
- I *Impatiens harrissii* Hook.f.
I India (W. Himalaya)
- Ex/E *Impatiens johnii* Barnes 14782
Ex/E 14782 India – Kerala (Kalaar valley, Idikki)
14782
- I *Impatiens laticornis* C.E.C. Fisch. 4988
I India – Tamil Nadu (Kundha, Nilgiri hills)

RED LIST OF THREATENED VASCULAR PLANT SPECIES IN INDIA

4988

I *Impatiens lawii* Hook.f. & Thomson

I India – Kerala

I *Impatiens lawsonii* Hook.f. 2268

I India – Tamil Nadu (Nilgiri Hills) 2268

I *Impatiens leptura* Hook.f.

I India – Kerala (Travancore)

I *Impatiens lucida* Heyne

I India – Karnataka (South Canara)

I India – Kerala (Travancore)

Ex/E *Impatiens macrocarpa* Hook.f. 14782

Ex/E 14782 India – Kerala (Travancore Hills) 14782

I *Impatiens meeboldii* Hook.f.

I India – Jammu & Kashmir

E *Impatiens munnarensis* Barnes 14782

E 14782 India – Kerala (Munnar, Idikki) 14782

I *Impatiens munronii* Wight

I India – Tamil Nadu (Sispara, Nilgiri)

I *Impatiens nataliae* Hook.f.

I India – Karnataka (Kumsi, Shimoga)

E *Impatiens neo-barnessi* C.E.C. Fisch. 4988

E 13883 India – Tamil Nadu (Kundha, Nilgiri hills)

4988

E *Impatiens nilagirica* C.E.C. Fisch. 13883

E 13883 India – Tamil Nadu (Kundha, Nilgiri hills)

4988

I *Impatiens pahalgamensis* Hook.f.

I India – Jammu & Kashmir

BOTANICAL SURVEY OF INDIA

- I *Impatiens pallidiflora* Hook.f.
I India – Kerala (Devicolam, Idikki)
- R *Impatiens pandata* Barnes 14782
R 14782 India – Kerala 14782
- I *Impatiens platyadena* C.E.C. Fisch.
I India – Kerala (Anaimudi)
- I *Impatiens rivulicola* Hook.f.
I India – Kerala (Puraiar Valley, Travancore)
- I *Impatiens rufescens* Benth. ex Wight & Arn. 2268
I India – Tamil Nadu 2268
- I *Impatiens setosa* Hook.f.
I India – Tamil Nadu
- I *Impatiens stocksii* Hook.f.
I India – Karnataka
- R *Impatiens talbotii* Hook.f. 14782
R 14782 India – Karnataka 14782
- I *Impatiens verucunda* Hook.f.
I India – Kerala (Periakanal & Devicolam)
- I *Impatiens viridiflora* Wight
I India – Tamil Nadu
- I *Impatiens wightiana* Bedd.
I India – Tamil Nadu

Begoniaceae

- R *Begonia aborensis* Dunn 14782
R 14782 India – Arunachal Pradesh 14782
- E *Begonia aliciae* C.E.C. Fisch. 14782

RED LIST OF THREATENED VASCULAR PLANT SPECIES IN INDIA

- E 14782 India – Kerala (Travancore Hills) 14782
- E *Begonia anamalayana* Bedd.** 14782
- E 14782 India (southwestern Ghats) 14782
- Ex/E *Begonia brevicaulis* DC.** 14782
- Ex/E 14782 India – Meghalaya 14782
- R *Begonia burkillii* Dunn** 14782
- R 14782 India – Arunachal Pradesh 14782
- I *Begonia canarana* Miq.** 14782
- E 14782 India – Karnataka (South Canara) 14782
- E 14782 India – Kerala (Malabar) 14782
- R *Begonia cordifolia* (Wight) Thwaites** 14782
- R 14782 India – Kerala (Malabar) 14782
- R 14782 India – Tamil Nadu (Tirunelveli Hills)
14782
- R *Begonia lushaiensis* C.E.C. Fisch.** 14782
- R 14782 India – Mizoram 14782
- R *Begonia phrixophylla* Blatt. & McCann** 13883
- R 13883 India – Maharashtra 13883
- R *Begonia rubro-venia* Hook. var. *meisneri***
- C. B. Clarke 14782
- R 14782 India – Meghalaya 14782
- R *Begonia satrapis* C. B. Clarke** 14782
- R 14782 India – Sikkim 14782
- I *Begonia scintillans* Dunn** 14782
- I 14782 India – Arunachal Pradesh 14782
- R *Begonia scutata* Wall. ex DC.** 14782
- R 14782 India 14782
- R 14782 India – Sikkim 14782

BOTANICAL SURVEY OF INDIA

- R 14782 India – West Bengal 14782
- R *Begonia subpeltata* Wight 14782
- R 14782 India (South Deccan Peninsula and Western Ghats) 14782
- I *Begonia tessaricarpa* C. B. Clarke 14782
- I 14782 India – Assam 14782
- V *Begonia trichocarpa* Dalzell 14782
- V 14782 India (Western Ghats and southwest India) 14782
- E *Begonia wattii* C. B. Clarke 14782
- E 14782 India – Nagaland 14782
- I *Begonia wengeri* C.E.C. Fisch. 14782
- I 14782 India – Mizoram 14782

Berberidaceae

- R *Berberis affinis* Don 11494
- R 11494 India – Uttar Pradesh (Kumaon) 11494
- R *Berberis apiculata* Ahrendt 13883
- R 13883 India – Himachal Pradesh (Simla) 13883
- I *Berberis huegeliana* Schneider 11494
- I 11494 India – Jammu & Kashmir (Kashmir) 11494
- R *Berberis kashmiriana* Ahrendt 11494
- R 11494 India – Jammu & Kashmir (Mantnar valley, nr Desu) 11494
- V *Berberis lambertii* R. Parker 11494

RED LIST OF THREATENED VASCULAR PLANT SPECIES IN INDIA

- V** 11494 India – Uttar Pradesh 11494
- V** *Berberis nilghiriensis* Ahrendt 2268
- V** 18228 India – Tamil Nadu (Nilgiri Hills) 2268
- I** *Berberis orthobotrys* Bien. ex Aitch. var.
 sinhanensis Ahrendt
- I** India – Jammu & Kashmir (only Kashmir)
- R** *Berberis osmastonii* Dunn 11494
- R** 11494 India – Uttar Pradesh (Garhwal) 11494
- I** *Berberis petiolaris* Wall. ex G. Don var.
 garhwalana Ahrendt
- I** India – Uttar Pradesh (Garhwal; Kumaun)
- I** *Berberis pseudoumbellata* R. Parker
- I** India – Himachal Pradesh (Chamba, Simla)
- I** India – Jammu & Kashmir (only Kashmir)
- I** India – Uttar Pradesh (Garhwal)
- I** *Berberis royleana* Ahrendt
- I** India – Jammu & Kashmir (only Kashmir)
- I** *Mahonia jaunsarensis* Ahrendt
- I** India – Uttar Pradesh (Chakrata)

Bombacaceae

- I** *Bombax insigne* Wall. var. *polystemon*
 Prain 7771
- I** 14782 India – Nicobar Is. 7771

Boraginaceae

- E** *Arnebia benthamii* Benth. 14768

BOTANICAL SURVEY OF INDIA

- E India – Jammu & Kashmir 14768
- I *Cordia octandra* A. DC.
- I India – Kerala (Travancore Hills)
- I *Ehretia wightiana* Wall. ex G. Don
- I India – Tamil Nadu (Tirunelveli District)
- I *Heliotropium bacciferum* Forsk. var. *suberosum*
(Clark) Bhandari 7771
- I India – Gujarat (Kutch, north-east Rajasthan)
7771
- I *Paracaryum coelastinum* (Lindl.) Benth.
- I India – Karnataka
- I *Paracaryum malabaricum* C.B. Clarke
- I India – Karnataka (Canara & Mysore)

Burseraceae

- I *Boswellia ovalifoliolata* N. P. Balakr. & A.N. Henry
- I India – Andhra Pradesh

Campanulaceae

- R *Campanula alphonsii* Wall. ex DC. 13883
- R 13883 India (Nilgiris and Palany Hills and Western Ghats) 13883
- R *Campanula wattiana* Nayar & Babu 13883
- R 13883 India – Himachal Pradesh 13883
- R 13883 India – Uttar Pradesh 13883
- I *Cephalostigma flexuosum* Hook.f. & Thomson

RED LIST OF THREATENED VASCULAR PLANT SPECIES IN INDIA

- I India – Karnataka
I India – Tamil Nadu (north Coimbatore Hills)
R *Codonopsis affinis* Hook. f. & Thoms. 13883
R 13883 India – Sikkim (Darjeeling) 13883
R *Cyananthus integra* Wall. ex Benth. 13883
R 13883 India (Kumoan – Tehri Garhwal Himalayas.)
13883

Capparaceae

- I** *Capparis cinerea* Jacobs 13883
I 13883 India – Manipur 13883
V *Capparis diversifolia* Wight & Arn. 11494
V 11494 India – Kerala 11494
V 11494 India – Tamil Nadu 11494
R *Capparis fusifera* Dunn 11494
R 11494 India – Kerala (Travancore) 11494
R 11494 India – Tamil Nadu 11494
V *Capparis pachyphylla* Jacobs 13883
V 14782 India – Arunachal Pradesh 14782
R *Capparis rheedii* DC. 11494
R 11494 India – Goa, Daman & Diu 11494
R 11494 India – Karnataka (North Kanara; South Kanara)
11494
R 11494 India – Kerala 11494
R 11494 India – Tamil Nadu (Tirunelveli District)
11494
V *Capparis shevaroyensis* Sundararagh. 11494

BOTANICAL SURVEY OF INDIA

- V 11494 India – Tamil Nadu 11494
- I *Cleome burmanni* Wight & Arn. 13883
- I 13883 India – Kerala 13883
- I 13883 India – Tamil Nadu 13883
- I *Cleome gynandra* L. var. *nana* (Blatt. & M. Hallb.)
Bhandari 7771
- I India – Rajasthan (Jaisalmer, Jodhpur)
7771

Caryophyllaceae

- E *Arenaria curvifolia* Majumdar 11494
- E 11494 India – Uttar Pradesh (Garhwal Himalaya)
11494
- E *Arenaria ferruginea* Duthie ex Williams 11494
- E 11494 India – Uttar Pradesh (Kali/Dhauki Valley,
Kumaon) 11494
- I *Arenaria neelgerrensis* Wight & Arn.
- I India – Jammu & Kashmir
- I India - Tamil Nadu
- V *Arenaria thangoensis* W. W. Sm. 11494
- V 11494 India – Sikkim (Thango; Chugya) 11494
- I *Cerastium thomsoni* Hook.f.
- I India (W. Himalaya)
- I *Dianthus minimus* Javeid
- I India – Jammu & Kashmir
- V *Polycarpaea diffusa* Wight & Arnott 14782

RED LIST OF THREATENED VASCULAR PLANT SPECIES IN INDIA

- V 14782 India – Tamil Nadu 14782
- I *Silene khasiana* Rohrb. 14782
- I 14782 India- Meghalaya 14782
- R *Silene kumaonensis* F. Williams 13883
- R 13883 India – Uttar Pradesh (Garhwal Himalaya)
13883
- R *Silene kunawarensis* Royle 13883
- R 13883 India – Himachal Pradesh 13883
- R 13883 India – Jammu & Kashmir 13883
- I *Silene vagans* C. B. Clarke 14782
- I 14782 India – Nagaland 14782
- I *Stellaria depressa* Schmid
- I India – Jammu & Kashmir

Celastraceae

- E *Euonymus angulatus* Wight 11494
- E 11494 India – Karnataka (Coorg) 11494
- E 11494 India – Kerala (Palghat Dt) 11494
- E 11494 India – Tamil Nadu (Nilgiri Hills)
11494
- E *Euonymus assamicus* Blakelock 11494
- E 11494 India – Assam (Delei Valley) 11494
- I *Euonymus bullatus* Wall. ex Lindl.
- I India – Assam
- I India - Meghalaya
- I *Euonymus paniculatus* Wight ex M. Lawson

BOTANICAL SURVEY OF INDIA

I India – Tamil Nadu

Ex/E *Euonymus serratifolius* Bedd. 11494

Ex/E 11494 India – Tamil Nadu 11494

R *Hippocratea andamanica* King 7771

R 14782 India – Andaman Is. 7771

I *Hippocratea nicobarica* Kurz 7771

I India – Nicobar Is. 7771

I *Loeseneriella bourdillonii* (Gamble) Raju

I India – Kerala

I *Microtropis deniflora* Wight

I India – Tamil Nadu

R *Salacia beddomei* Gamble 13883

R 13883 India – Tamil Nadu 13883

E *Salacia jenkinsii* Kurz 11494

E 11494 India – Assam 11494

I *Salacia macrosperma* Wight

I India – Karnataka (Concan)

I India – Tamil Nadu (Wynaad, Nilgiri)

Ex/E *Salacia malabarica* Gamble 11494

Ex/E 11494 India – Karnataka (Coorg) 11494

Ex/E 11494 India – Kerala (Travancore Hills) 11494

Chrysobalanaceae

I *Atuna travancorica* (Bedd.) Kosterm. 13883

I 13883 India – Tamil Nadu (Travancore) 18341

I *Parinari indicum* Bedd

I India – Tamil Nadu (Nilgiri Hills)

RED LIST OF THREATENED VASCULAR PLANT SPECIES IN INDIA

I *Parinari travancoricum* Bedd.

- I India – Kerala (Travancore)
I India – Tamil Nadu (Tirunelveli District)

Combretaceae

I *Anogeissus sericea* Brandis var. *nummularia* King ex Duthie 7771

- I India – Gujarat 7771
I India – Punjab 7771
I India – Rajasthan (west) 7771

Compositae (Asteraceae)

I *Ageratum houstonianum* Mill. 15211, 20171

- I India – Tamil Nadu (Nilgiri & Palani Hills)

E *Anaphalis barnesii* C.E.C. Fisch. 11494

- E 11494 India – Kerala (High Range, Idukki)
11494

I *Anaphalis beddomei* Hook.f.

- I India – Tamil Nadu (Palani Hills)

I *Artemisia dolichocephala* Pampan.

- I India – Jammu & Kashmir

V *Catamixis baccharoides* Thomson 11494

- V 11494 India- Uttar Pradesh (Siwalik & Tehri,
Garhwal) 11494

I *Centratherum courtallense* (Wight) Benth.

BOTANICAL SURVEY OF INDIA

- I India – Kerala (Travancore Hills)
I India – Tamil Nadu
- I *Centratherum mayurii* C.E.C. Fisch.
I India – Karnataka (Kemmangundi hills)
- I *Centratherum ritchiei* Hook.f.
I India – Karnataka (Canara & Concan)
- I *Centratherum tenue* C.B. Clarke
I India – Karnataka (Concan)
- R *Chondrilla setulosa* Charke ex Hook. f. 14782
R 14782 India – Jammu & Kashmir 14782
- I *Cousinia falconeri* Hook.f.
I India – Jammu & Kashmir
- E *Cremanthodium arnicoides* (Wall.) R. Good 14768
E India – Jammu & Kashmir (Apharwat) 14768
- R *Cyathocline lutea* Law ex Wight 14782
R 14782 India – Karnataka 14782
R 14782 India – Maharashtra 14782
- R *Helichrysum cutchicum* (C.B. Clarke) R. S. Rao & Deshp.
R 13883 India – Gujarat 13883
- R *Helichrysum perlanigerum* Gamble 11494
R 11494 India – Tamil Nadu 11494
- I *Helichrysum wightii* C. B. Clarke ex Hook.f. 2268
I India – Tamil Nadu 2268
- R *Inula kalapani* C.B. Clarke 11494
R 11494 India – Meghalaya (Khasi hills) 11494
- V *Inula racemosa* Hook.f. 13883
V 13883 India – Jammu & Kashmir 13883

RED LIST OF THREATENED VASCULAR PLANT SPECIES IN INDIA

- E** *Lactuca benthamii* C.B. Clarke 11494
E 11494 India – Jammu & Kashmir (Kashmir) 11494
- E** *Lactuca cooperi* Anthony 11494
E 11494 India – Sikkim 11494
- E** *Lactuca filicina* Duthie ex Stebb. 11494
E 11494 India – Uttar Pradesh (Kali Valley, Kumaon)
11494
- E** *Lactuca undulata* Ledeb. 11494
E 11494 India – Jammu & Kashmir (Kashmir) 11494
- I** *Myriactis wightii* DC. var. *bellidiooides*
Hook.f.
I India – Tamil Nadu (Sispara, Nilgiri Hills)
- R** *Nanothamnus sericeus* Thomson 14782
R 14782 India – Karnataka 14782
R 14782 India – Maharashtra 14782
- I** *Notonia shevaroyensis* Fyson
I India – Tamil Nadu (Shevaroy Hills, Salem Dist)
- I** *Pulicaria rajputanae* Blatt. & M. Hallb. 7771
I India – Rajasthan 7771
- I** *Saussurea atkinsoni* C.B. Clarke
I India – Himachal Pradesh
I India – Jammu & Kashmir
- R** *Saussurea bracteata* Decne.
R 13883 India – Himachal Pradesh 13883
R 13883 India – Jammu & Kashmir 13883
R 13883 India – Uttar Pradesh 13883
- R** *Saussurea clarkei* Hook.f. 11494

BOTANICAL SURVEY OF INDIA

- R 11494 India – Jammu & Kashmir (Kashmir Himalaya)
11494
- E I *Saussurea costus* (Falc.) Lipsch. 7955
E 13883 India – Himachal Pradesh 13883
E 13883 India – Jammu & Kashmir 13883
- I *Saussurea foliosa* Edgew.
I India – Uttar Pradesh (Garhwal; Kumaun)
- I *Saussurea roylei* (DC.) Sch. Bip.
I India – Himachal Pradesh
I India – Jammu & Kashmir
I India – Uttar Pradesh
- I *Senecio dalzellii* C.B. Clarke
I India – Karnataka
- E *Senecio kundaicus* C.E.C. Fisch. 11494
E 11494 India – Tamil Nadu 11494
- R *Senecio mayurii* C.E.C. Fisch. 14782
R 14782 India – Karnataka 14782
- V *Senecio mishmi* C. B. Clarke 14782
V 14782 India – Meghalaya 14782
- R *Senecio rhabdos* C. B. Clarke 14782
R 14782 India – Manipur 14782
R 14782 India – Nagaland 14782
- I *Synotis simonsii* (C. B. Clarke) Jeffrey & Chen 14782
I 14782 India – Assam 14782
- R *Vernonia andamanica* N. P. Balakr. & N. G. Nair 10177
R 14782 India – Andaman Is. (Saddle Peak, N.
Andamans) 10177
- I *Vernonia beddomei* Hook.f.

RED LIST OF THREATENED VASCULAR PLANT SPECIES IN INDIA

- I India – Kerala
- I *Vernonia bourdillonii* Gamble**
- I India – Kerala (Travancore Hills; Chemungi)
9315
- I India – Tamil Nadu (Tirunelveli Dist.) 9315
- I *Vernonia fysoni* Calder**
- I India – Tamil Nadu (Palani Hills)
- I *Vernonia heynii* Bedd.ex Gamble**
- I India – Kerala (Travancore Hills)
- I *Vernonia membranacea* Bedd.ex S. Moore**
- I India – Kerala (Trivandrum District)
- I India – Tamil Nadu (Sispara, Nilgiri Hills)
- E *Vernonia multibracteata* Gamble 11494**
- E 11494 India – Kerala (Peermade, Idukki District)
11494
- I *Vernonia peninsularis* (C. B. Clarke) Hook.f.**
- I India – Tamil Nadu
- E *Vernonia pulneyensis* Gamble 11494**
- E 11494 India – Tamil Nadu (Pulney Hills, W. Ghats)
11494
- I *Vernonia ramasamii* Hutch. 9315**
- I India – Kerala (Trivandrum Dist.) 9315
- I India – Tamil Nadu 9315
- Ex/E *Vernonia recurva* Bedd.ex S. Moore 11494**
- Ex/E 11494 India – Tamil Nadu 11494
- I *Vernonia saligna* DC. var. *nilghirensis***
- Hook.f.
- I India – Kerala (Wynaad)

BOTANICAL SURVEY OF INDIA

- I India – Tamil Nadu (Nilgiri Hills)
- I *Vernonia salvifolia* Wight
- I India – Kerala (Travancore)
- I India – Tamil Nadu (Courtallum Hills)
- E *Youngia nilagiriensis* Babc. 11494
- E 11494 India – Tamil Nadu (Sispara, Nilgiri Hills)
11494

Connaraceae

- I *Connarus nicobaricus* King 7771
- I India – Nicobar Is. (Gt. Nicobar Is.)
7771
- I *Ellipanthus calophyllus* Kurz 7771
- I India – Andaman Is. 7771
- I *Ellipanthus neglectus* Gamble
- I India – Kerala (Travancore Hills)
- I India – Tamil Nadu (Tirunelveli Hills)

Convolvulaceae

- I *Convolvulus auricomus* (A. Rich.) Bhandari var.
ferruginosus Bhandari 7771
- I India – Rajasthan (west) 7771
- I *Convolvulus blatteri* Bhandari 7771
- I India – Rajasthan (Jaisalmer) 7771
- I *Convolvulus flavus* Willd.
- I India – Tamil Nadu

RED LIST OF THREATENED VASCULAR PLANT SPECIES IN INDIA

- I** *Ipomoea cairica* (L.) Sweet var. *semine-glabra*
(Blatt. & M. Hallb.) Bhandari
- I** India – Rajasthan
- R** *Ipomoea clarkei* Hook.f. 14782
- R** 14782 India – Uttar Pradesh (Western Ghats in Thane, Pune
and Nasik Districts) 14782
- I** *Neuropeltis racemosa* Wall. ex Roxb.
- I** India – Kerala (Tambracheri Ghat, Malabar)

Crassulaceae

- R** *Kalanchoe olivacea* Dalzell & Gibson 14782
- R** 14782 India – Tamil Nadu 14782
- E** *Kalanchoe roseus* C. B. Clarke 14782
- E** 14782 India – Manipur 14782
- E** 14782 India – Nagaland 14782
- I** *Sedum duthie* Frod.
- I** India – Uttar Pradesh (Kumaun)

Cruciferae (Brassicaceae)

- I** *Arabis stewartiana* Jafri
- I** India (W. Himalaya)
- I** *Arabis tenuirostris* O. Schulz
- I** India – Jammu & Kashmir
- I** *Draba dasystastra* Gilg & O. Schulz
- I** India – Jammu & Kashmir
- I** *Erophila tenerrima* (O. Schulz) Jafri

BOTANICAL SURVEY OF INDIA

- I India – Jammu & Kashmir
- R *Erysimum thomsonii* Hook. f. 13883
R 13883 India – Himachal Pradesh 13883
- I *Farsetia macrantha* Blatt. & M. Hallb. 7771
I India – Rajasthan (Mataji's Temple, Barmer)
7771
- E *Megacarpaea bifida* Benth. 14768
E India – Jammu & Kashmir (Apharwat)
14768

Cucurbitaceae

- I *Corallocarpus gracillipes* (Naudin) Cogn.
I India – Tamil Nadu (Pondicherry, Carnatic)
- I *Luffa umbellata* (Klein) M. Roemer
I India – Kerala (Travancore coast)
- I *Melothria amplexicaulis* (M. Lawson) Cogn.
I India – Tamil Nadu
- I *Momordica subangulata* Blume
I India – Karnataka (South Canara)
I India – Kerala (Wynaad)
- I *Trichosanthes lepiniana* (Naudin) Cogn.
I India – Tamil Nadu (Nilgiri Hills)
- I *Trichosanthes perrottetiana* Cogn.
I India – Tamil Nadu (Pondicherry, Carnatic)
- I *Trichosanthes villosula* Cogn.

RED LIST OF THREATENED VASCULAR PLANT SPECIES IN INDIA

I India – Tamil Nadu (Nilgiri Hills)

Dichapetalaceae

I *Dichapetalum gelonoides* (Roxb.) Engl. ssp.

andamanicum (King) Leenh. 7771

I India – Andaman Is. (South) 7771

Dipterocarpaceae

R *Dipterocarpus bourdillonii* Brandis 12848

R India (Kerala) 12848

V *Dipterocarpus kerrii* King 7730

V 13845 India – Andaman Is. (Goplakabang, Mt Harriet)
12848

Ex/E *Hopea erosa* (Bedd.) Slooten

Ex/E India – Tamil Nadu

R *Hopea jacobi* C.E.C. Fisch. 14782

R 14782 India – Karnataka (Coorg) 14782

V *Hopea wightiana* Wall. 12848

V 13845 India – Karnataka (N. Kanara) 12848

V 13845 India – Kerala 12848

V 13845 India – Tamil Nadu (Tirunelveli) 12848

E *Shorea tumbuggaia* Roxb.

E India – Andhra Pradesh

E India – Tamil Nadu

R *Vateria macrocarpa* B.L. Gupta 11494

R 11494 India – Kerala 11494

BOTANICAL SURVEY OF INDIA

Elaeagnaceae

- E *Elaeagnus conferta* Roxb. ssp. *dendroidea*
Servettaz 14782
E 14782 India - Meghalaya (Khasi Hills) 14782

Elaeocarpaceae

- R *Elaeocarpus blascoi* Weibel 14782
 R 14782 India – Tamil Nadu 14782

R *Elaeocarpus gaussenii* Weibel 14782
 R 14782 India (Western Ghats) 14782

R *Elaeocarpus munronii* (Wight) Mast. 14782
 R 14782 India – Karnataka 14782
 R 14782 India – Maharashtra 14782
 R 14782 India – Tamil Nadu 14782

R *Elaeocarpus recurvatus* Corner 14782
 R 14782 India – Tamil Nadu 14782

V *Elaeocarpus venustus* Bedd. 6987
 V 13883 India – Kerala 6987
 V 13883 India – Tamil Nadu 6987

Ericaceae

- I *Agapetes nuttallii* C.B. Clarke 10173
I India – Arunachal Pradesh 10173
E *Rhododendron concinnooides* Hutch. & Ward 14732
E 14732 India – Arunachal Pradesh 14732

RED LIST OF THREATENED VASCULAR PLANT SPECIES IN INDIA

- I** *Rhododendron dalhousiae* Hook.f. var. *rhabdotum*
(Balf.f. & Cooper) Cullen 3060
I India – Arunachal Pradesh 3060
- I** *Rhododendron elliottii* Watt 10260
I 14732 India – Manipur 14732
I 14732 India – Nagaland 14732
- V** *Rhododendron formosum* Wall. 14732
V 14732 India – Arunachal Pradesh 14732
V 14732 India – Manipur 14732
V 14732 India – Meghalaya 14732
V 14732 India – Nagaland 14732
- I** *Rhododendron johnstoneanum* Watt ex Hutch.
I India – Manipur
I India – Mizoram
- R** *Rhododendron macabeanum* Watt ex Balf.f. 14732
R 14732 India – Manipur 14732
R 14732 India – Nagaland 14732
- E** *Rhododendron santapaui* Sastry & al. 14732
E 14732 India – Arunachal Pradesh 14732
- E** *Rhododendron subansiriense* Chamberlain 14732
E 14732 India – Arunachal Pradesh 14732
- E** *Rhododendron wattii* Cowan 14732
E 14732 India – Manipur 14732

Euphorbiaceae

- I** *Antidesma andamanicum* Hook. f. 7771
I India – Andaman Is. (South) 7771

BOTANICAL SURVEY OF INDIA

- I *Blachia reflexa* Benth.
- I India – Karnataka (Coorg)
- I India – Kerala (Travancore Hills)
- I India – Tamil Nadu (Nilgiri Hills)
- V *Bridelia kurzii* Hook. f. 7771
- V 14782 India – Andaman Is. 14782
- V 14782 India – Nicobar Is. (Kamorta Is.) 7771
- I *Chamaesyce linearifolia* (Roth) Sojak
- I India – Andhra Pradesh (Kurnool)
- I *Cnesmone jvanica* Bl. var. *glabriuscula* N. P. Balakr. & N. G. Nair 7771
- I India – Andaman Is. (South) 7771
- I *Croton scabiosus* Bedd.
- I India – Andhra Pradesh
- I *Cyclostemon malabaricus* Bedd.
- I India – Kerala (Travancore Hills)
- I India – Tamil Nadu (Tirunelveli Hills)
- R *Dalechampia stenoloba* Sundaragarh. & Kulk. 11494
- R 11494 India – Karnataka (Sukalhatti, Chikmagalur) 11494
- R *Drypetes andamanica* (Kurz) Pax & Hoffm. 7771
- R 14782 India – Andaman Is. (South) 7771
- I *Drypetes leiocarpa* (Kurz) Pax & Hoffm. 7771
- I India – Andaman Is. (south) 7771
- R *Euphorbia katrajensis* Gage 14782
- R 14782 India – Maharashtra 14782
- R II *Euphorbia panchganiensis* Blatt. & McCann 14782
- R 14782 India – Maharashtra 14782

RED LIST OF THREATENED VASCULAR PLANT SPECIES IN INDIA

- I *Excoecaria rectinervis* (Kurz) Kurz 7771**
I India – Nicobar Is. (katchal Is.) 7771
- I *Fahrenheitia integrifolia* (Airy Shaw) Airy Shaw**
I India – Kerala
I India – Tamil Nadu
- I *Glochidion andamanicum* Kurz 7771**
I India – Andaman Is. (South) 7771
- I *Glochidion bourdillonii* Gamble**
I India – Kerala (Travancore Hills)
- I *Glochidion pauciflorum* Gamble**
I India – Tamil Nadu
- I *Koilodepas calycinum* Bedd. 5375**
I India – Tamil Nadu 5375
- I *Lasiococca comberi* Haines**
I India – Andhra Pradesh
- I *Macaranga flexuosa* Wight**
I India – Tamil Nadu
- I *Meineckia longipes* (Wight) Webster**
I India – Kerala (Quilon, Malabar)
I India – Tamil Nadu
- I *Micrococca wightii* (Wall. ex Hook.f.) Prain var.
 hirsutum (Hook.f.) Prain**
I India – Tamil Nadu
- E *Phyllanthus narayanaswamii* Gamble 11494**
E 11494 India – Andhra Pradesh (east Ghats) 11494
- R *Phyllanthus talbotii* Sedw. 14782**
R 14782 India – Karnataka 14782
- I *Pseudoglochidion anamalayanum* Gamble 14782**

BOTANICAL SURVEY OF INDIA

- I 14782 India – Tamil Nadu 14782
- I *Psilostachys sericea* (Koen. ex Roxb.) Hook.f.
- I India – Andhra Pradesh (Nellore)
 - I India – Gujarat
 - I India – Kerala
- I *Reidia beddomei* Gamble
- I India – Kerala (Travancore Hills)
 - I India – Tamil Nadu (Tirunelveli District)
- I *Reidia gageana* Gamble
- I India – Kerala (Travancore Hills)
 - I India – Tamil Nadu (Tirunelveli Hills)
- I *Reidia megacarpa* Gamble
- I India – Tamil Nadu (Devala, south east Wynnaad)
- I *Reidia stipulacea* Gamble
- I India – Tamil Nadu
- I *Trigonostemon chatterjii* Deb
- I India – Meghalaya (Khasi hills)

Flacourtiaceae

- E *Hydnocarpus macrocarpa* (Bedd.) Warf. ssp.
macrocarpa 14782, 21025
- E 14782 India (southern W. Ghats) 14782

Gentianaceae

- I *Exacum anamalayanum* Bedd.
- I India – Tamil Nadu
- I *Exacum atropurpureum* Bedd. 9330

RED LIST OF THREATENED VASCULAR PLANT SPECIES IN INDIA

- I India – Tamil Nadu (Upper Kodayar area)
9330
- I** *Exacum courtallense* Arn. var. *courtallense*
I India – Tamil Nadu
- E** *Gentiana cachemirica* Decne. 14768
E India – Jammu & Kashmir (Kounsarnag)
14768
- R** *Gentiana crassuloides* Bureau Franch. 14722
R 14722 India – Arunachal Pradesh 14722
R 14722 India – Sikkim 14722
R 14722 India – Uttar Pradesh 14722
- R** *Gentiana infelix* C. B. Clarke 14722
R 14722 India – Himachal Pradesh 14722
R 14722 India – Sikkim 14722
R 14722 India – Uttar Pradesh 14722
- R** *Gentiana sagjinoides* Burkhill 14722
R 14722 India – W. Himalaya (Kumoan) 14722
- I** *Swertia beddomei* C.B. Clarke
I India – Karnataka (South Canara, Mysore)
I India – Kerala (Travancore Hills)
I India – Tamil Nadu (Sispara, Nilgiri Hills)

Geraniaceae

- I** *Geranium tuberaria* Cambess.
I India (W. Himalaya)

Gesneriaceae

- I** *Cyrtandra burttii* N. P. Balakr. 7771

BOTANICAL SURVEY OF INDIA

- I India – Nicobar Is. (Great Nicobar) 7771
I *Cyrtandra occidentalis* N. P. Balakr. & Burtt 7771
I India – Nicobar Is. (Gt. Nicobar Is.) 7771
I *Didymocarpus fischeri* Gamble
I India – Tamil Nadu
I *Didymocarpus meeboldii* W. W. Sm.
I India – Kerala
I India – Tamil Nadu (Madurai hills)
R *Didymocarpus missionis* Wall. 6987
R 14782 India – Tamil Nadu 6987
I *Didymocarpus ovalifolia* Wight 6987
I India – Tamil Nadu 6987
R *Rhynchoglossum lazulinum* A. S. Rao & Joseph 14782
R 14782 India – Arunachal Pradesh 14782

Guttiferae (Clusiaceae)

- I *Garcinia cadelliana* King 7771
I 14782 India – Andaman Is. 7771
I *Garcinia calycina* Kurz 7771
I India – Nicobar Is. 7771
I *Garcinia imberti* Bourd.
I India – Kerala
I *Garcinia indica* Choisy
I India – Karnataka
I India – Kerala (Wynaad)
I *Garcinia kingii* Pierre ex Vesque 7771
I 14782 India – Andaman Is. 7771

RED LIST OF THREATENED VASCULAR PLANT SPECIES IN INDIA

- I *Garcinia rubro-echinata* Kosterm.**
- I India – Kerala
 I India – Tamil Nadu
- I *Garcinia talbotii* Raizada ex Santapau**
- I India – Karnataka
 I India – Tamil Nadu
- I *Hypericum japonicum* Thunb. var. *major***
- Fyson
 I India – Tamil Nadu
- I *Mesua manii* (King) Kosterm. 7771**
- I 14782 India – Andaman Is. (South) 7771
- I *Poeciloneuron pauciflorum* Bedd. 14782**
- I 14782 India – Kerala 14782
 I 14782 India – Tamil Nadu 14782

Hydrangeaceae

- I *Deutzia amurensis* Airy Shaw**
- I India (NW Himalaya)

Icacinaceae

- I *Apodytes benthamiana* Wight**
- I India – Meghalaya (Khasi & Jaintia hills)
 I India – Tamil Nadu
- R *Gomphandra comosa* King 7771**
- R 14782 India - Andaman Is. (south) 7771

BOTANICAL SURVEY OF INDIA

R 14782 India – Nicobar Is. 14782

I *Iodes hookeriana* Baill.

I India – Meghalaya

Ixonanthaceae

V *Ixonanthes khasiana* Hook.f. 11494

V 11494 India – Assam (Bhutan Hill, Cachar) 11494

V 11494 India – Meghalaya (Khasi & Jaintia hills)
11494

Labiatae (Lamiaceae)

I *Acrocephalus palniensis* Mukerjee 14782

I 14782 India – Tamil Nadu (Madurai) 14782

I *Acrocephalus sericeus* Benth.

I India – Tamil Nadu

I *Acrocephalus suffruticosus* Wight

I India – Tamil Nadu

I *Acrocephalus wightii* Hook.f.

I India – Tamil Nadu

V *Anisochilus argenteus* Gamble 14782

V 14782 India (south) 14782

R *Anisochilus wightii* Hook.f. 14782

R 14782 India – Tamil Nadu 14782

I *Dysophylla rugosa* Hook.f.

I India – Tamil Nadu (Tirunelveli District)

I *Elsholtzia densa* Benth.

RED LIST OF THREATENED VASCULAR PLANT SPECIES IN INDIA

- I India – Himachal Pradesh
I India – Jammu & Kashmir
I India – Uttar Pradesh
- R *Leucas angustissima* Sedgw.** 11494
R 11494 India – Karnataka (Gersoppa Ghat, north Kanara) 11494
- E *Leucas mukerjiana* Subba Rao & Kumari**
E 13883 India – Andhra Pradesh 13883
- I *Leucas pubescens* Benth.**
I India – Tamil Nadu
- I *Leucas wightiana* Benth.**
I India – Tamil Nadu (Kanyakumari)
- I *Nepeta camestris* Benth.**
I India – Himachal Pradesh
I India – Jammu & Kashmir
I India – Uttar Pradesh
- I *Nepeta paucifolia* Mukerjee**
I India – Jammu & Kashmir
- I *Plectranthus beddomei* Raizada**
I India – Tamil Nadu (Tirunelveli Hills)
- Ex/E *Plectranthus bishopianus* Gamble** 14782
Ex/E 14782 India – Tamil Nadu (Palani Hills, Madurai Dist) 14782
- I *Plectranthus bourneae* Gamble** 14782
I 14782 India – Tamil Nadu 14782
- I *Plectranthus deccanicus* Briq.**
I India – Tamil Nadu
- R *Pogostemon atropurpureus* Benth.** 14782

BOTANICAL SURVEY OF INDIA

R 14782 India – Tamil Nadu (Sispara Ghat, Nilgiri)

14782

I *Pogostemon gardneri* Hook.f.

I India – Kerala (Wynaad)

I India – Tamil Nadu (Sispara, Nilgiri Hills)

E *Pogostemon nilagiricus* Gamble 2268

E 14782 India – Tamil Nadu (Nilgiri Hills) 2268

E *Pogostemon paludosus* Benth. 4988

E 14782 India – Tamil Nadu (Nilgiri Hills) 4988

R *Pogostemon travancoricus* Bedd. 9250

R 14782 India – Kerala (Trivandrum District) 9250

R *Scutellaria andamanica* Prain 7771

R 14782 India – Andaman Is. (South) 7771

V *Teucrium plectranthoides* Gamble 11494

V 11494 India – Tamil Nadu (Tirunelveli Hills)

11494

Lauraceae

E *Actinodaphne bourneae* Gamble

E 13883 India – Tamil Nadu (Kodaikanal, Palani hills)

13883

I *Actinodaphne campanulata* Hook.f. var.

campanulata

I India – Tamil Nadu (Tirunelveli Hills)

I *Actinodaphne campanulata* Hook.f. var. *obtusa* Gamble

I India – Kerala (Travancore) 9315

E *Actinodaphne lanata* Meisn.

RED LIST OF THREATENED VASCULAR PLANT SPECIES IN INDIA

- E** 13883 India – Tamil Nadu (Nilgiri Hills) 13883

R *Actinodaphne lawsonii* Gamble 13883

R 13883 India – Kerala (south-east Wynad) 13883

R 13883 India – Tamil Nadu (Nilgiris) 13883

I *Actinodaphne salicina* Meisn.

I India – Tamil Nadu (Sispara, Nilgiri hills)

I *Alseodaphne semecarpifolia* Nees var. *angustifolia* Meisn.

I India – Tamil Nadu

I *Beilschmiedia bourdillonii* Brandis

I India – Karnataka (South Canara)

I India – Kerala (Travancore)

I *Beilschmiedia wightii* (Nees) Benth. ex Hook.f.

I India – Kerala (Travancore Hills)

I India – Tamil Nadu

I *Cinnamomum glanduliferum* Meisn. 7771

I 14761 India – Uttar Pradesh 7771

R *Cinnamomum macrocarpum* Hook.f.

R 18228 India – Tamil Nadu (Nilgiri Hills)

18228

R *Cinnamomum perrottetii* Meisn. 4988

R 18228 India – Tamil Nadu (Nilgiri Hills) 4988

R *Cinnamomum riparium* Gamble

R 18341 India – Karnataka (Coorg) 18228

R 18341 India – Kerala (Travancore Hills) 18228

R 18341 India – Tamil Nadu 18228

V *Cinnamomum travancoricum* Gamble

V 18228 India – Kerala 18228

BOTANICAL SURVEY OF INDIA

- I *Cryptocarya ferrarsii* King 14782
I 14782 India – Andaman Is. (Middle) 7771
- I *Cryptocarya stocksii* Meisn.
I India – Karnataka
I India – Kerala (Travancore Hills)
I India – Tamil Nadu
- V *Litsea leiantha* (Kurz) Hook.f. 7771
V 14782 India – Andaman Is. (South) 7771
- I *Litsea mysorensis* Gamble
I India – Karnataka
I India – Kerala (Wynaad)
- I *Litsea travancorica* Gamble
I India – Kerala (Travancore Hills)
- I *Neolitsea andamanica* Kosterm. 7771
I India – Andaman Is. 7771
- I *Neolitsea nicobarica* Kosterm. 7771
I India – Nicobar Is. 7771

Leeaceae

- I *Leea aquata* L.
I India – Orissa (Ganjam forests)
- I *Leea cinera* M. Lawson
I India – Kerala (Palghat Cherry, Malabar)
- I *Leea venkobarrowii* Gamble
I India – Kerala (Travancore)
I India – Tamil Nadu

RED LIST OF THREATENED VASCULAR PLANT SPECIES IN INDIA

Leguminosae (Fabaceae)

- R** *Acacia campbellii* Arn. 14782
R 14782 India – Andhra Pradesh 14782
- I** *Acacia hohenackeri* Craib 4988
I India – Tamil Nadu 4988
- I** *Acacia wightii* Baker
I India – Kerala (Travancore)
I India – Tamil Nadu (Tirunelveli Hills)
- R** *Albizia thompsonii* Brandis 14782
R 14782 India – Andhra Pradesh (Cuddapah) 14782
R 14782 India – Orissa (Ganjam) 14782
R 14782 India – Tamil Nadu (Coimbatore) 14782
- I** *Alysicarpus beddomei* Schindler 2268
I India – Tamil Nadu (Nilgiri Hills) 2268
- I** *Alysicarpus meeboldii* Schindler
I India – Jammu & Kashmir
- I** *Alysicarpus monilifer* (L.) DC. var. *venosus*
Blatt. & M. Hallb.
I India – Rajasthan 7958
- I** *Amphicarpa anomala* Bunge
I India – Jammu & Kashmir (Ladakh)
- I** *Amphicarpa edgeworthii* Benth.
I India (W. Himalaya)
- I** *Amphicarpa flemingii* Ali
I India – Punjab
- I** *Astragalus anomalous* Bunge

BOTANICAL SURVEY OF INDIA

- I India – Jammu & Kashmir (Ladakh)
- I *Astragalus bakerii* Ali
I India – Jammu & Kashmir
- I *Cajanus sericus* (Benth.) Maesen
I India – Andhra Pradesh (Vizakapatnam Hills)
I India – Karnataka (Concan)
- I *Crotalaria bidiei* Gamble
I India – Tamil Nadu (Wynaad, Nilgiri Hills)
- I *Crotalaria bourneae* Fyson
I India – Tamil Nadu
- I *Crotalaria clarkei* Gamble
I India – Tamil Nadu
- E *Crotalaria clavata* Wight & Arn. 11494
E 11494 India – Tamil Nadu 11494
- I *Crotalaria conferta* Fyson
I India – Tamil Nadu (Palani Hills, Madurai Dist)
- R *Crotalaria digitata* Hook.
R 13883 India – Karnataka 13883
R 13883 India – Tamil Nadu 13883
- I *Crotalaria filipes* Benth.
I India – Karnataka (South Canara)
- E *Crotalaria fysonii* Dunn var. *glabra*
Gamble
E 13883 India – Tamil Nadu (Palani Hills, Madurai
Dist) 13883
- R *Crotalaria globosa* Wight & Arn.
R 13883 India – Karnataka (Mysore) 13883
R 13883 India – Tamil Nadu 13883

RED LIST OF THREATENED VASCULAR PLANT SPECIES IN INDIA

- E** *Crotalaria kodaiensis* Debberm. & Biswas 11494
E 11494 India – Tamil Nadu (Kodaikanal hills) 11494
- E** *Crotalaria longipes* Wight & Arn. 11494
E 11494 India – Tamil Nadu (Kolli & Nilgiri hills)
11494
- R** *Crotalaria lutescens* Dalzell
R 13883 India – Karnataka (South Canara) 13883
R 13883 India – Maharashtra 13883
- I** *Crotalaria noveoides* Griff. 13883
I 13883 India – Meghalaya 13883
- R** *Crotalaria peduncularis* Graham ex Wight & Arn. 11494
R 11494 India – Kerala (Travancore) 11494
R 11494 India – Tamil Nadu 11494
- R** *Crotalaria priestleyoides* Benth. ex Baker 11494
R 11494 India – Karnataka 11494
R 11494 India – Tamil Nadu 11494
- R** *Crotalaria rigida* Heyne ex Roth 11494
R 11494 India – Andhra Pradesh (Krishna) 11494
R 11494 India – Karnataka 11494
R 11494 India – Tamil Nadu 11494
- E** *Crotalaria sandoorensis* Bedd. ex Gamble 11494
E 11494 India – Karnataka (Sandoor Hills, Bellary Dt)
11494
- R** *Crotalaria scabra* Gamble 13883
R 13883 India – Tamil Nadu 13883
- V** *Crotalaria shevaroyensis* Gamble
V 18228 India – Tamil Nadu 18228
- V** *Cynometra beddomei* Prain 14782

BOTANICAL SURVEY OF INDIA

- V 18228 India – Kerala (Wynaad) 14782
- V *Cynometra bourdillonii* Gamble 11494
 - V 11494 India – Karnataka 11494
- R *Cynometra travancorica* Bedd.
 - R 13883 India – Karnataka 13883
 - R 13883 India – Kerala (Travancore Hills) 13883
 - R 13883 India – Tamil Nadu (Tirunelveli Hills) 13883
- R *Desmodium wightii* Graham ex Wight & Arn.
 - R 18228 India – Tamil Nadu (Nilgiri & Palani Hills) 18228
- R *Desmodium wynadense* Bedd. ex Gamble
 - R 18228 India – Kerala (Travancore Hills) 18228
 - R 18228 India – Tamil Nadu 18228
- I *Dialium travancoricum* Bourd. 14782
 - I 14782 India – Kerala 14782
- I *Dolichos ciliatus* Klein
 - I India – Tamil Nadu (east coast)
- R *Eleotis trifoliolata* T. Cooke 14782
 - R 14782 India – Karnataka (eastern) 14782
- R *Flemingia gracilis* (Mukerjee) Ali 14782
 - R 14782 India – Karnataka 14782
 - R 14782 India – Maharashtra 14782
- I *Gleditsia assamica* Bor 14782
 - I 14782 India (northeast) 14782
- R *Hedysarum astragaloides* Benth. ex Baker
 - R 13883 India – Himachal Pradesh 13883
 - R 13883 India – Jammu & Kashmir 13883

RED LIST OF THREATENED VASCULAR PLANT SPECIES IN INDIA

- E** *Humboldtia bourdillonii* Prain 11494
E 11494 India – Kerala (Peermade Ghats) 11494
E 11494 India – Tamil Nadu (Courtallum Ghats)
11494
- R** *Humboldtia decurrens* Bedd. ex Oliver 11494
R 11494 India – Kerala (south Western Ghats)
11494
- E** *Humboldtia laurifolia* Vahl
E 13883 India – Kerala (Malabar) 13883
- E** *Humboldtia unijuga* Bedd. 9250
E 11494 India – Kerala 11494
E 11494 India – Tamil Nadu (Tirunelveli Hills)
11494
- R** *Indigofera barberi* Gamble 11494
R 11494 India – Andhra Pradesh (east Ghats)
11494
R 11494 India – Tamil Nadu (east Ghats) 11494
- R** *Indigofera caerulea* Roxb. var. *monosperma*
(Santapau) Santapau
R 13883 India – Gujarat 13883, 77/1
R 13883 India – Rajasthan 13883
- I** *Indigofera cedrorum* Dunn
I India – Himachal Pradesh
I India – Jammu & Kashmir
- R** *Indigofera constricta* (Thwaites) Trimen
R 13883 India – Karnataka (Nikund Ghat) 13883
R 13883 India – Kerala (Cochin) 13883
- I** *Indigofera simlensis* Ali

BOTANICAL SURVEY OF INDIA

- I India – Himachal Pradesh
- I *Inga cymometroides* (Bedd.) Baker 14782
- I 14782 India – Kerala (south Travancore Hills)
14782
- R *Kingiodendron pinnatum* (DC.) Harms 14782, 21025
- R 14782 India – Karnataka 14782
- R 14782 India – Kerala 14782
- R 14782 India – Tamil Nadu 14782
- I *Lasiobema scandens* (Linn.) de Wit var. *horsefieldii*
(Wall. ex Prain) de Wit
- I India – Assam
- I India – Meghalaya
- I *Mucuna minima* Haines 7771
- I 7771 India – Orissa (Sambalpur) 7771
- V *Nogra dalzellii* (Baker) Merr. 14782
- V 14782 India – Karnataka 14782
- V 14782 India – Maharashtra 14782
- E *Nogra filicaulis* (Kurz) Merr. 14782
- E 14782 India – Madhya Pradesh 14782
- I *Phanera khasiana* (Baker) Thoth.
- I India – Arunachal Pradesh
- I India – Meghalaya
- I *Phanera nicobarica* N. P. Balakr. & Thoth. 7771
- I India – Nicobar Is. 7771
- I *Phanera wallichii* (Macbr.) Thoth.
- I India – Assam
- I India – Meghalaya
- E II *Pterocarpus santalinus* L.f. 19218, 21025

RED LIST OF THREATENED VASCULAR PLANT SPECIES IN INDIA

- E** 20263 India 20263
- R** *Pueraria bella* Prain 14782
R 14782 India – Arunachal Pradesh 14782
- R** *Rhynchosia beddomei* Baker
R 13883 India – Andhra Pradesh (Cuddapah) 13883
R 13883 India – Karnataka (Bellary) 13883
- V** *Rhynchosia velutina* Wight & Arn.
V 13883 India – Tamil Nadu 13883
- I** *Sesbania paludosa* (Roxb.) Prain
I India – Kerala (Travancore)
- R** *Smithia agharkarii* Hemadri 13883
R 13883 India – Maharashtra 13883
- I** *Smithia venkobarrowii* Gamble
I India – Kerala (Peermade, Travancore Hills)
- R** *Tephrosia barberi* Drumm. 14782
R 14782 India – Tamil Nadu 14782
- R** *Tephrosia calophylla* Bedd. 14782
R 14782 India – Tamil Nadu 14782
- I** *Tephrosia collina* V. Sharma var. *lanuginocarpa* V. Sharma
I India – Gujarat (Kutch)
I India – Rajasthan
- R** *Tephrosia jamnagerensis* Santapau
R 13883 India – Gujarat 13883
- I** *Tephrosia pentaphylla* (Roxb.) Sweet
I India – Karnataka (Bellary)
- R** *Tephrosia wynnaadensis* Drumm. 14782
R 14782 India – Kerala 14782

BOTANICAL SURVEY OF INDIA

I *Thermopsis inflata* Cambess.

I India – Himachal Pradesh

I India – Jammu & Kashmir

I *Vicia benthamiana* Ali

I India – Jammu & Kashmir

R *Vigna khandalensis* (Santapau) Sundararagh. & Wadhwa 14782

R 14782 India – Maharashtra 14782

Lentibulariaceae

I *Utricularia ceciliae* P. Taylor 20103

I 20103 India – Karnataka 20103

Linaceae

R *Hugonia belli* Sedgwick 10505

R 14782 India – Karnataka 10505

R 14782 India – Kerala (Cannanore) 10505

Loganiaceae

I *Strychnos colubrina* L.

I India – Andhra Pradesh (Veligonda hills)

I India – Karnataka (South Canara)

I India – Kerala (Travancore)

I *Strychnos narcondamensis* A.W. Hill 7771

I India – Nicobar Is. (Narcondam) 7771

RED LIST OF THREATENED VASCULAR PLANT SPECIES IN INDIA

Lythraceae

R *Lagerstroemia minuticarpa* Debb. ex P.C.

Kanjilal 14782

R 14782 India – Assam 14782

R 14782 India – Sikkim 14782

I *Lagerstroemiarottleri* C.B. Clarke

I India

I *Lagerstroemia thomsonii* Koehne

I India – Karnataka

I India – Tamil Nadu

I *Rotala floribunda* (Wight) Koehne

I India – Maharashtra (Mahabaleshwar hills)

I *Rotala malampuzhensis* R.V. Nair

I India – Kerala

I *Rotala occultiflora* Koehne 9228

I India – Kerala (Malabar coast)

I India – Madhya Pradesh 9228

V *Rotala ritchiei* (C.B. Clarke) Koehne 11494

Ex/E 11494 India – Karnataka (Belgaum) 11494

V 11494 India – Maharashtra (Pune District)

11494

Magnoliaceae

I *Magnolia griffithii* Hook.f. & Thomson

I India – Assam

I *Magnolia gustavi* King

BOTANICAL SURVEY OF INDIA

- I India – Assam
R *Michelia punduana* Hook.f. & Thomson 11494
R 11494 India – Meghalaya (Khasi hills) 11494
R 11494 India – Nagaland 11494
I *Pachylarnax pleiocarpa* Dandy 20689
I India – Assam (Lakhimpur) 20689

Malpighiaceae

- R *Aspidopterys canarensis* Dalzell 11494
R 11494 India – Kartnataka 11494
R 11494 India – Kerala 11494
R 11494 India – Maharashtra (Bombay) 11494
R *Aspidopterys tomentosa* Haines var. *hutchinsonii*
(Haines) Srivastava 11494
R 11494 India – Orissa (Mayurbhanj Hills) 11494

Malvaceae

- I *Abutilon bidentatum* Hochst. var. *major* (Blatt. &
M. Hallb.) Bhandari 7771
I India – Rajasthan (west) 7771
I *Abutilon fruticosum* Guillemin & Perrottet var.
chrysocarpa Blatt. & M. Hallb. 7771
I India – Rajasthan (Jaisalmer) 7771
I *Abutilon ramosum* Guillemin & Perrottet
I India – Karnataka
I India – Kerala

RED LIST OF THREATENED VASCULAR PLANT SPECIES IN INDIA

Ex/E *Abutilon ranadei* Woodrow 11494

Ex/E 11494 India – Maharashtra 11494

E *Decaschistia rufa* Craib 11494

E 11494 India – Tamil Nadu 11494

I *Decaschistia triloba* Wight

I India – Karnataka

I *Pavonia arabica* Hochst. ex Steudel var. *glutinosa*

Blatt. & M. Hallb. 7771

I India – Rajasthan (Jaisalmer, Barmer, Jodhpur)

7771

Melastomataceae

E *Kendrickia walkeri* Hook.f. 14782

E 14782 India – Tamil Nadu 14782

I *Memecylon deccanense* C.B. Clarke 9315

I India – Kerala 9315

E *Memecylon flavescentia* Gamble 4988

E 14782 India – Tamil Nadu (Nilgiri Hills) 4988

I *Memecylon lawsonii* Gamble 6295

I India – Tamil Nadu 6295

I *Memecylon madgolense* Gamble

I India – Andhra Pradesh

I *Memecylon sisparensis* Gamble 14782

I 14782 India – Tamil Nadu (Nilgiri Hills)

14782

I *Memecylon wightiana* Triana

I India – Kerala (Malabar, Travancore coast)

BOTANICAL SURVEY OF INDIA

- I *Osbeckia aspera* (L.) Blume
I India – Kerala (Travancore coast)
- I *Osbeckia lawsoni* Gamble
I India – Kerala
- I *Osbeckia stellata* Buch. Ham. ex Ker-Gawler var.
hispidissima (Wight) Hansen
I India – Andhra Pradesh (Vizakapatnam District)
I India – Karnataka (Wostara)
I India – Orissa (Ganjam Hills)
- I *Osbeckia travancorica* Bedd. ex Gamble
I India – Kerala (lower hills, Travancore)
- I *Sonerila barnesii* C.E.C. Fisch.
I India – Tamil Nadu (Nadugani, Tirunelveli Hills)
- I *Sonerila elegans* Wight
I India – Tamil Nadu
- I *Sonerila nemakadensis* C.E.C. Fisch.
I India – Kerala (Travancore)
- I *Sonerila pulneyensis* Gamble 6295
I India – Tamil Nadu 6295

Meliaceae

- I *Dysoxylum beddomei* Hiern
I India – Kerala (Peermade & Cardomom Hills)
- I *Dysoxylum ficiforme* (Wight) Gamble

RED LIST OF THREATENED VASCULAR PLANT SPECIES IN INDIA

I India – Kerala (Koni & Ranni valleys)

Menispermaceae

I *Albertisia meciostophylla* (Miers) Forman 14782

I 14782 India – Assam 14782

I 14782 India – Meghalaya 14782

R *Coscinium fenestratum* (Gaertn) Colebr. 16162

E 20263 India 20263

I *Cyclea debiliflora* Miers 14782

I 14782 India – Meghalaya 14782

E *Cyclea fissicalyx* Dunn 14782

E 20263 India – Kerala (Wynaad, Malabar) 14782

I *Cyclea wattii* Diels 14782

I 14782 India – Nagaland 14782

I *Stephania andamanica* Diels 7771

I 14782 India – Andaman Is. (South Andaman Island)

7771

I *Tinospora andamanica* Diels 7771

I India – Andaman Is. 7771

Moraceae

R *Ficus andamanica* Corner 7771

R 14782 India – Andaman Is. (South Andaman Islands)

7771

I *Ficus costata* Ait. 14736

I 14736 India – Nicobar Is. 14736

Myristicaceae

- I *Gymnacranthera canarica* (King) Warb. 21141, 10150
I India – Karnataka 10150
I India – Kerala 10150
- I *Horsfieldia macrocarpa* var. *canariooides* (King)
Sinclair 7771
I India – Andaman Is. 7771
- E *Myristica malabarica* Lam. 21163, 20263, 21025
E 20263 India – Kerala 21163

Myrsinaceae

- R *Antistrophe serratifolia* (Bedd.) Hook.f. 11494
R 11494 India – Kerala (Silent Valley; Nilgiris)
11494
R 11494 India – Tamil Nadu 11494
- I *Ardisia amplexicaulis* Bedd.
I India – Kerala
- I *Ardisia quinquangularis* A. DC.
I India – Meghalaya
- I *Ardisia rhynchophylla* C.B. Clarke
I India – Meghalaya (Cherrapunji, Khasi Hills)
- I *Embelia gardneriana* Wight
I India – Tamil Nadu (Sispara Ghat, Nilgiri)
- I *Embelia microcalyx* Kurz 7771
I India – Nicobar Is. (Katchal Is.) 7771

RED LIST OF THREATENED VASCULAR PLANT SPECIES IN INDIA

I *Rapanea striata* Mez

I India – Karnataka (Mysore)

I *Rapanea thwaitesii* Mez

I India – Tamil Nadu (Palani Hills, Madurai Dist)

Myrtaceae

I *Cleistocalyx nicobaricus* (King) Merr. & Perry 7771

I India – Nicobar Is. (Katchal Is.) 7771

Ex/E *Eugenia argentea* Bedd. 11494

Ex/E 11494 India – Kerala (Wynaad forests) 11494

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

I India – Karnataka (Coorg, south Canara)

I India – Kerala (Travancore)

I India – Tamil Nadu (Nilgiri Hills)

E *Eugenia discifera* Gamble 1172

E 11494 India – Kerala 11494

E 11494 India – Tamil Nadu (Sethur Hills, Kamarajar Dt) 11494

I *Eugenia floccosa* Bedd. 6987

I India – Tamil Nadu 6987

I *Eugenia jossinia* Duthie

I India – Tamil Nadu

Ex/E *Eugenia singampattiana* Bedd. 11494

Ex/E 11494 India – Tamil Nadu (Papanasam & Singampatti) 11494

E *Meteoromyrtus wynaadensis* (Bedd.) Gamble 14782

BOTANICAL SURVEY OF INDIA

- E 14782 India – Tamil Nadu 14782
- I *Syzygium andamanicum* (King) N. P. Balakr. 10499
I 14782 India – Andaman Is. 10499
- I *Syzygium beddomei* (Duthie) Chithra
I India – Tamil Nadu
- I *Syzygium benthamianum* (Wight ex Duthie) Gamble
I India – Tamil Nadu (Sispara, Nilgiri Hills)
- Ex/E *Syzygium bourdillonii* (Gamble) Rathakr. & Nair 11494
Ex/E 11494 India – Kerala (Merchiston; Colatoorpolay)
11494
- I *Syzygium chavaran* (Bourd.) Gamble
I India – Kerala (north Travancore)
- E *Syzygium courtallense* (Gamble) Alston 11494
E 11494 India – Tamil Nadu (Courtallum Hills)
11494
- E *Syzygium gambleanum* Rathakr. & Chithra 11494
E 11494 India – Tamil Nadu (Kannyakumari) 11494
- I *Syzygium kurzii* (Duthie) N. P. Balakr. var. *andamanica*
King 10499
I India – Andaman Is. 10499
- R *Syzygium manii* (King) N. P. Balakr. 10499
R 14782 India – Andaman Is. 14782
- I *Syzygium myhendrae* (Bedd. ex Brandis) Gamble
I India – Kerala (Travancore Hills)
I India – Tamil Nadu (Tirunelveli Hills)
- I *Syzygium occidentalis* (Bourd.) Ghandhi
I India – Kerala
- Ex/E *Syzygium palghatense* Gamble 11494

RED LIST OF THREATENED VASCULAR PLANT SPECIES IN INDIA

Ex/E 11494 India – Kerala (Palghat Hills) 11494

- I *Syzygium rama-varmae* (Bourd.) Chithra**
I India – Kerala (Travancore Hills)
I India – Tamil Nadu (Tirunelveli Hills)
- I *Syzygium stocksii* (Duthie) Gamble**
I India – Karnataka (South Canara)
I India – Kerala (Wynaad Hills)
- E *Syzygium travancoricum* Gamble 11494, 21304, 21025**
E 11494 India – Kerala (south) 11494

Nepenthaceae

- I I *Nepenthes khasiana* Hook.f. 15658**
I India – Assam (Khasi hills)
I India – Meghalaya (Jaintia hills)

Olacaceae

- I *Anacolosa densiflora* Bedd.**
I India – Kerala (Travancore Hills)
I India – Tamil Nadu
- I *Olax imbricata* Roxb. var. *membranifolia***
Kurz 7771
I India – Nicobar Is. (Katchal Is.) 7771

Oleaceae

- I *Henslowia erythrocarpa* Kurz 7771**
I India – Nicobar Is. (Kamorta Is.) 7771

BOTANICAL SURVEY OF INDIA

- I *Jasminum andamanicum* N. P. Balakr. & N.G. Nair 7771
I India – Andaman Is. (South and Middle
Andamans) 7771
- R *Jasminum unifoliolatum* N. P. Balakr. & N. G. Nair 10177
R 14782 India – Andaman Is. (Saddle Peak, N.
Andamans) 10177
- I *Jasminum wightii* C.B. Clarke
I India – Tamil Nadu (Coimbatore)
- I *Ligustrum decaisnei* C.B. Clarke var. *beddomei*
Gamble
I India – Karnataka (Kiggatnad, Coorg)

Onagraceae

- I *Epilobium glaciale* Raven
I India – Jammu & Kashmir

Papaveraceae

- E *Corydalis cashmeriana* Royle 14768
E India – Jammu & Kashmir (Mahdev) 14768
- E *Meconopsis aculeata* Royle 14768
E India – Jammu & Kashmir 14768
- V *Meconopsis latifolia* Prain 11494
V 11494 India – Jammu & Kashmir (Kashmir Himalaya)
11494
- I *Papaver himalaicum* Cretz.
I India – Jammu & Kashmir

RED LIST OF THREATENED VASCULAR PLANT SPECIES IN INDIA

Piperaceae

- R** *Piper barbieri* Gamble 20263
R 13883 India – Tamil Nadu (southern W. Ghats)
13883
- I** *Piper haprium* Buch.-Ham. ex Hook.f.
I India – Kerala (Travancore Hills)
I India – Tamil Nadu (Tirunelveli Hills)
- I** *Piper pykarahense* C. DC. 2268
I India – Tamil Nadu (Nilgiri Hills) 2268

Pittosporaceae

- I** *Pittosporum eriocarpum* Royle 11494
I 11494 India – Himachal Pradesh 11494
I 11494 India – Uttar Pradesh (Kumaun) 11494

Podostemaceae

- I** *Hydrobryopsis sessilis* (Willis) Engl.
I India – Karnataka
- I** *Indotristicha tirunelveliana* Sharma, Karth. &
Shetty 13883
I 13883 India – Tamil Nadu (Tirunelveli Hills)
13883
- R** *Willisia selaginoides* (Bedd.) Warm. ex Willis 13883
R 13883 India – Kerala 13883
- I** *Zeylanidium johnsonii* (Wight) Engl.

BOTANICAL SURVEY OF INDIA

I India – Kerala (Malabar)

Polygalaceae

I *Polygala tricholopha* Chodat

I India – Assam

I India – Meghalaya

Primulaceae

I *Androsace aizoon* Duby

I India – Jammu & Kashmir

I *Androsace mucronifolia* Watt

I India – Jammu & Kashmir

I *Primula clarkei* Watt

I India – Jammu & Kashmir

I *Primula drumondiana* Craib

I India – Himachal Pradesh

E *Primula minutissima* Jack ex Duby 14768

E India – Jammu & Kashmir (Apharwat Mts)

14768

Proteaceae

I *Helicia nilagirica* Bedd.

I India – Kerala (Walaghat)

I India – Tamil Nadu

I *Helicia travancorica* Bedd. ex Hook.f.

RED LIST OF THREATENED VASCULAR PLANT SPECIES IN INDIA

- I** India – Kerala (Travancore Hills)
I India – Tamil Nadu (Tirunelveli Hills)

Ranunculaceae

- I** *Aconitum balfourii* Stapf var. *rhomboilobum*
Stapf
I India – Uttar Pradesh (Garhwal Himalaya; Kumaun)
I *Aconitum falconeri* Stapf var.
falconeri 14761
I 14761 India – Uttar Pradesh (Garhwal; Kumaun)
14761
V *Aconitum falconeri* Stapf var. *latilobum*
Stapf 13883
V 13883 India – Himachal Pradesh (Bashahr)
13883
I *Aconitum ferox* Wall. ex Seringe 11494
V 11494 India – Himachal Pradesh 11494
V 11494 India – Sikkim 11494
V India – Uttar Pradesh 9998
E *Aconitum kashmiricum* Stapf ex Coventry
E 14768 India – Jammu & Kashmir 14768
I *Aconitum moschatum* (Bruhl) Stapf
I India – Jammu & Kashmir
I *Aquilegia nakaoi* Tamura
I India – Jammu & Kashmir
E *Aquilegia nivalis* Falc. ex Jackson 14768
E India – Jammu & Kashmir (Apharwat) 14768

BOTANICAL SURVEY OF INDIA

- E** *Clematis apiculata* Hook.f. & Thomson 11494
E 11494 India – Meghalaya (Khasi hills) 11494
- V** *Clematis bourdillonii* Dunn 14782
V 14782 India – Kerala 14782
- R** *Clematis theobromina* Dunn 14782
R 14782 India – Tamil Nadu 14782
- V** *Coptis teeta* Wall. 17617
E 14782 India – Arunachal Pradesh 9248
- I** *Delphinium koelzii* Munz
I India – Himachal Pradesh (Kulu)
- I** *Delphinium roylei* Munz
I India – Himachal Pradesh
I India – Jammu & Kashmir
- I** *Isopyrum ludlowii* Tamura & Lawner
I India – Jammu & Kashmir (Lidar Valley, nr Pahlgam)
- I** *Pulsatilla wallichiana* (Royle) Ulbr.
I India – Himachal Pradesh
I India – Jammu & Kashmir
- I** *Thalictrum dalzellii* Hook. 14782
I 14782 India – Karnataka 14782
I 14782 India – Maharashtra 14782
- E** *Trollius acaulis* Lindl. 14768
E India – Jammu & Kashmir (Mahdev, Gumri)
14768

Rhamnaceae

- I** *Ziziphus horrida* Roth

RED LIST OF THREATENED VASCULAR PLANT SPECIES IN INDIA

- I India – Andhra Pradesh (Kurnool)
I India – Karnataka (Mysore)
I *Ziziphus truncata* Blatt. & M. Hallb. 7771
I India – Rajasthan (west) 7771

Rosaceae

- I** *Alchemilla cashmiriana* Rothm.
I India (West Himalaya)
V *Cotoneaster buxifolius* Wall. ex Lindl. 11494
V 11494 India – Tamil Nadu 11494
I *Cotoneaster cashmirensis* Klotz
I India – Jammu & Kashmir
I *Cotoneaster simonsii* Baker 11494, 20171
I 11494 India – Sikkim 11494
I *Potentilla kashmirica* Hook.f.
I India – Jammu & Kashmir
I *Rubus almorensis* Dunn
I India – Uttar Pradesh
I *Rubus fockei* Gandhi
I India – Karnataka
I India – Kerala (Attapadi Hills)
I India – Tamil Nadu
I *Rubus wightii* Gamble
I India – Tamil Nadu (Sivagiri Hills, Tirunelveli)
I *Spiraea diversifolia* Dunn
I India – Uttar Pradesh

BOTANICAL SURVEY OF INDIA

Rubiaceae

- E** *Acranthera grandiflora* Bedd. 11494
E 11494 India – Tamil Nadu (Tirunelveli) 11494
- V** *Acranthera tomentosa* R. Br. ex Hook. f. 13883
V 13883 India – Assam 13883
V 13883 India – Meghalaya 13883
V 13883 India – Nagaland 13883
- I** *Argostemma khasianum* C. B. Clarke 14782
I 14782 India – Meghalaya 14782
- I** *Byrsophyllum tetrandrum* (Bedd.) Hook.f. 6987
I India – Kerala 6987
I India – Tamil Nadu 6987
- R** *Clarkella nana* (Edgw.) Hook.f. 14782
R 14782 India – Uttar Pradesh (western Himalayas)
14782
- I** *Coffea crassifolia* Gamble
I India – Kerala (Travancore Hills)
I India – Tamil Nadu
- I** *Diplospora andamanica* N. P. Balakr. & N.G. Nair 10177
I India – Andaman Is. (Saddle Peak, N.
Andamans) 10177
- I** *Galium confertum* Royle
I India – Himachal Pradesh
- E** *Hedyotis albonervia* Bedd. 11494
E 11494 India – Tamil Nadu 11494
- I** *Hedyotis anamalayana* (Gamble) R. S. Rao & Hemadri
I India – Tamil Nadu

RED LIST OF THREATENED VASCULAR PLANT SPECIES IN INDIA

- I** *Hedyotis andamanica* Kurz 7771
I India – Andaman Is. 7771
I India – Nicobar Is. (Nicobar) 7771
- V** *Hedyotis barberi* (Gamble) A.N. Henry & Subr.
V 13883 India – Tamil Nadu (Tirunelveli Hills)
13883
- E** *Hedyotis beddomei* Hook.f. 11494
E 11494 India – Kerala (Palghat Hills) 11494
- V** *Hedyotis bourdillonii* (Gamble) R. S. Rao &
Hemadri 10508
V 13883 India – Kerala (Travancore; Silent Valley)
10508
- R** *Hedyotis brunonis* Merr. 13883
R 13883 India – Assam 13883
- R** *Hedyotis buxifolia* Bedd. 13883
R 13883 India – Kerala 13883
R 13883 India – Tamil Nadu 13883
- I** *Hedyotis congesta* Wall. var. *nicobarica*
King 7771
I India – Nicobar Is. 7771
- R** *Hedyotis eualata* (Bedd. ex Gamble) A. N. Henry &
Subr. 13883
R 13883 India – Kerala 13883
R 13883 India – Tamil Nadu 13883
- Ex/E** *Hedyotis hirsutissima* Bedd. 11494
Ex/E 11494 India – Tamil Nadu 11494
- V** *Hedyotis ramarowii* (Gamble) R. S. Rao & Hemadri 11494
V 11494 India – Kerala (Travancore) 11494

BOTANICAL SURVEY OF INDIA

- V 11494 India – Tamil Nadu 11494
- I *Hedyotis shuteri* (Hook.f.) R. S. Rao & Hemadri
I India – Tamil Nadu (east coast near Madras)
- I *Hedyotis sisaparensis* Gage 2268
I India – Tamil Nadu (Nilgiri Hills) 2268
- I *Hedyotis stocksii* (Hook.f. & Th.) R. S. Rao & Hemadri
I India – Karnataka (Mysore)
- R *Hedyotis swersioides* Hook.f. 13883
R 13883 India – Kerala 13883
R 13883 India – Tamil Nadu 13883
- I *Hedyotis travancorica* Bedd.
I India – Kerala (Travancore Hills)
I India – Tamil Nadu (Tirunelveli Hills)
- I *Hedyotis villosastripulata* (Gamble) R. S. Rao &
Hemadri 5379
I India – Kerala (Travancore Hills)
I India – Tamil Nadu (Muthukuzhivayal) 5379
- I *Hedyotis wynnaadensis* (Gamble) R. S. Rao & Hemadri
I India – Kerala (Wynnaad)
- R *Indopolysolenia wallichii* (Hook.F.) Bennet 14782
R 14782 India – Meghalaya 14782
- I *Ixora andamanica* Bremek. 7771
I India – Andaman Is. 7771
- I *Ixora capituliflora* Bremek. 7771
I India – Andaman Is. 7771
- I *Ixora cuneifolia* Roxb. var. *macrocarpa*
Kurz 7771
I India – Nicobar Is. (Pulu Milo Is.) 7771

RED LIST OF THREATENED VASCULAR PLANT SPECIES IN INDIA

- I *Ixora hymenophylla* Bremek. 7771**
 I India – Andaman Is. 7771
- I *Ixora johnsonii* Hook.f.**
 I India – Kerala (Travancore)
- I *Ixora lawsonii* Gamble**
 I India – Karnataka (Coorg)
 I India – Kerala (Mannanthody)
- I *Ixora longibracteata* Bremek. 7771**
 I India – Nicobar Is. 7771
- I *Ixora saulierei* Gamble**
 I India – Tamil Nadu (Palani Hills)
- I *Ixora tenuifolia* Bremek. 7771**
 I India – Nicobar Is. 7771
- R *Knoxia linearis* Gamble**
 R 7771 India – Orissa (Mahendragiri, Ganjam)
 7771
 I India – Tamil Nadu (Mahendragiri Hills)
- I *Lasianthus blumeanus* Wight**
 I India – Tamil Nadu (Tirunelveli District)
- I *Lasianthus capitulatus* Wight**
 I India – Karnataka (Bruhmagiri Hills)
 I India – Tamil Nadu (Nilgiri & Palani Hills)
- I *Lasianthus ciliatus* Wight**
 I India – Tamil Nadu (Nilgiri Hills)
- I *Lasianthus dichotomus* Wight 9327**
 I India – Tamil Nadu 9327
- I *Lasianthus oblongifolius* Bedd.**
 I India – Tamil Nadu (Papanasam Hills)

BOTANICAL SURVEY OF INDIA

- I *Lasianthus obovatus* Bedd.
 I India – Kerala (Athramalai Hills)
- I *Lasianthus truncatus* Bedd.
 I India – Andhra Pradesh (Vizakapatnam)
 I 7771 India – Orissa (Mahendragiri Hills), Ganjam)
 7771
- I *Leptodermis griffithii* Hook.f.
 I India – Meghalaya
- I *Leptodermis scabrida* Hook.f.
 I India – Arunachal Pradesh (Mishmee Hills)
- I *Morinda reticulata* Gamble
 I India – Kerala (Travancore Hills)
- I *Mycetia mukerjiana* Deb & R. Dutta
 I India – Assam (Makum hills)
- I *Nauclea gageana* King 7771
 I 14782 India – Andaman Is. 7771
- I *Neanotis carnosa* (Dalzell) W. Lewis 14782
 I 14782 India – Karnataka 14782
- I *Neanotis monosperma* (Wight & Arn.) W. Lewis
 I India – Karnataka (Mysore)
 I India – Tamil Nadu (Nilgiri & Palani Hills)
- I *Neanotis montholonii* (Hook.f.) W. Lewis
 I India – Karnataka (Mysore and Concan)
 I India – Kerala
- R *Neanotis oxyphylla* (G.Don) Lewis 14782
 R 14782 India – Meghalaya 14782
- V *Neanotis prainiana* (Talbot) Lewis 14782
 V 14782 India – Karnataka 14782

RED LIST OF THREATENED VASCULAR PLANT SPECIES IN INDIA

I *Neanotis rheedii* (Wight & Arn.) W. Lewis

- I India – Karnataka
I India – Kerala (Cochin)
I India – Tamil Nadu

V *Ochreinauclea missionis* (Wall. ex G. Don)

- Ridsdale 14782, 21025
V 14782 India (central and southern W. Ghats)
 14782

I *Oldenlandia albonervia* (Bedd.) Gamble

- I India – Kerala (Travancore Hills)
I India – Tamil Nadu (Tirunelveli Hills)

I *Oldenlandia glauca* Blatt.

- I India – Rajasthan (Mt Abu)

Ex/E *Ophiorrhiza barnesii* C.E.C. Fisch. 11494

- Ex/E 11494 India – Kerala (Travancore) 11494

Ex *Ophiorrhiza brunonis* Wight & Arn. 11494

- Ex 11494 India – Karnataka 11494

- Ex 11494 India – Kerala 11494

- Ex 11494 India – Tamil Nadu 11494

Ex *Ophiorrhiza caudata* C.E.C. Fisch. 11494

- Ex 11494 India – Kerala (Idukki) 11494

I *Ophiorrhiza codyensis* Gamble

- I India – Karnataka (Coorg, Sampaji Ghat)

I *Ophiorrhiza gracilis* Kurz 13883

- I 13883 India – Nagaland (Kohima) 13883

I *Ophiorrhiza griffithii* Hook.f. 13883

- I 13883 India – Nagaland 13883

BOTANICAL SURVEY OF INDIA

- E *Ophiorrhiza hispida* Hook.f. 13883**
- E 13883 India – Assam 13883
- E 13883 India – Meghalaya 13883
- E *Ophiorrhiza incarnata* C.E.C. Fisch. 11494**
- E 11494 India – Kerala 11494
- I *Ophiorrhiza munnarensis* C.E.C. Fisch.**
- I India – Kerala (Idukki)
- I *Ophiorrhiza nicobarica* N. P. Balakr. 7771**
- I India – Nicobar Is. (Gt. Nicobar Is.) 7771
- Ex/E *Ophiorrhiza pykarensis* Gamble 11494**
- Ex/E India – Tamil Nadu (Pykara Falls, Nilgiris)
 4988
- Ex *Ophiorrhiza radicans* Gardn. 13883**
- Ex 13883 India – Kerala 13883
- I *Ophiorrhiza roxburghiana* Wight**
- I India – Tamil Nadu (Palani Hills; Periya shola)
- E *Ophiorrhiza subcapitata* Wall. ex Hook.f. 13883**
- E 13883 India – Meghalaya (Khasi & Jaintea hills)
 13883
- V *Ophiorrhiza tingens* C. B. Clarke ex C. E. C. Fisch. 13883**
- V 13883 India – Assam 13883
- V 13883 India – Meghalaya 13883
- V 13883 India – Nagaland 13883
- V 13883 India – Tripura 13883
- E *Ophiorrhiza wattii* C.E.C. Fisch. 11494**
- E 11494 India – Manipur 11494
- E 11494 India – Meghalaya 11494
- E 11494 India – Nagaland 11494

RED LIST OF THREATENED VASCULAR PLANT SPECIES IN INDIA

I *Pavetta concinna* Bremek.

I India – Tamil Nadu (Tirunelveli District)

V *Pavetta hohenackeri* Bremek. 14782

V 14782 India – Tamil Nadu (Sispara & Nilgiri Hills)
4988

R *Pavetta madrassica* Bremek.

R 18228 India – Andhra Pradesh 18228

R 18228 India – Tamil Nadu 18228

I *Pavetta nemoralis* Bremek.

I India – Kerala (Kavalai, Cochin)

I *Pavetta ob lanceolata* Bremek. 14782

I 14782 India – Kerala 14782

Ex/E *Pavetta wightii* Hook. f. 14782

Ex/E 14782 India – Tamil Nadu 14782

I *Plectronia ficiformis* (Hook.f.) Gamble

I India – Karnataka (Mysore)

I India – Tamil Nadu (Palani & Sivagiri Hills)

I *Plectronia pergracilis* (Bourd.) Gamble

I India – Kerala (Colatoorpolay, Travancore)

I *Prismatomeris andamanica* Ridley 14782

I 14782 India – Andaman Is. (S. Andaman Is.)

7771

E *Psychotria aborensis* Dunn 11494

E 11494 India – Arunachal Pradesh 11494

R *Psychotria andamanica* Kurz. 14782

R 14782 India – Andaman Is. 7771

R 14782 India – Nicobar Is. 14782

I *Psychotria barberi* Gamble

BOTANICAL SURVEY OF INDIA

- I India – Kerala (Travancore Hills)
I India – Tamil Nadu
- E *Psychotria globicephala* Gamble**
E 13883 India – Tamil Nadu (Tirunelveli District)
13883
- I *Psychotria helferi* Kurz. var. *angustifolia***
King 7771
I India – Andaman Is. (S. Andaman Is.)
7771
- I *Psychotria nicobarica* Kurz 7771**
I India – Nicobar Is. (Katchal Is.) 7771
- I *Psychotria pendula* Hook. f. 14782**
I 14782 India – Andaman Is. (S. Andaman Is.) 7771
- I *Psychotria polyneura* Kurz var. *longipetiolata***
King 7771
I India – Andaman Is. 7771
- Ex/E *Psychotria tylophora* Kurz 11494**
Ex/E 11494 India – Nicobar Is. 11494
- I *Pubistylus andamanensis* Thoth. 7771**
I India - Andaman Is. 7771
- V *Rubia edgeworthii* Hook.f. 13883**
V 13883 India (Western Himalayas) 13883
- V *Rubia himalayensis* Klotzsch 13883**
V 13883 India – Jammu & Kashmir 13883
- I *Saprosma fragrans* Bedd.**
I India – Kerala (Malabar)
I India – Tamil Nadu
- V *Tarennia agumbensis* Sundararagh. 13883**

RED LIST OF THREATENED VASCULAR PLANT SPECIES IN INDIA

- V** 13883 India – Karnataka 13883
- I** *Urophyllum andamanicum* King & Gamble 7771
- I India – Andaman Is. (S. Andamans) 7771
- E** *Wendlandia andamanica* Cowan 11494
- E 11494 India – Andaman Is. (Port Blair, Andaman Is.)
11494
- Ex** *Wendlandia angustifolia* Wight 11494
- Ex 11494 India – Tamil Nadu (Courtallum & Tirunelveli)
11494
- I** *Wendlandia lawii* Hook.f.
- I India – Karnataka (Mysore)

Rutaceae

- I** *Atalantia missionis* (Wight) Oliver
- I India – Andhra Pradesh (Cuddapah)
- I India – Kerala (Quilon)
- I India – Tamil Nadu
- R** *Glycosmis macrocarpa* Wight 14782
- R 14782 India – Kerala 14782
- R 14782 India – Tamil Nadu 14782
- V** *Melicope indica* Wight 14782
- V 14782 India – Tamil Nadu 14782

Sabiaceae

- I** *Sabia malabarica* Bedd.
- I India – Kerala (Palghat)

BOTANICAL SURVEY OF INDIA

I India – Tamil Nadu

Sapindaceae

R *Allophylus concanicus* Radlk. 13883

R 13883 India – Maharashtra 13883

Sapotaceae

I *Isonandra montana* (Thwaites) Gamble

I India – Kerala (Travancore Hills)

V *Isonandra stocksii* C. B. Clarke 14782

V 14782 India (western peninsular India) 14782

I *Isonandra villosa* Wight 14782

I 14782 India – Kerala 14782

I 14782 India – Tamil Nadu 14782

Ex/E *Madhuca bourdillonii* (Gamble) Raizada 14782

Ex/E 14782 India – Kerala (Travancore) 14782

E *Madhuca diplostemon* (C. B. Clarke) van Royen 14782

E 20263 India 14782

Ex/E *Madhuca insignis* (Radlk.) H.J. Lam 14782

Ex/E 14782 India – Karnataka 14782

I *Mimusops andamanensis* King & Gamble 7771

I India – Andaman Is. 7771

Saxifragaceae

E *Saxifraga jacquemontiana* Decne. 14768

RED LIST OF THREATENED VASCULAR PLANT SPECIES IN INDIA

E India – Jammu & Kashmir (Damamsar)
14768

Schisandraceae

- I** *Schisandra grandiflora* (Wall.) Hook.f. & Thomson
I India – Himachal Pradesh (Simla)
I India – Meghalaya
I India – Sikkim
I India – Uttar Pradesh (Garhwal; Kumaun)
- I** *Schisandra propinqua* (Wall.) Baillon
I India – Sikkim
I India – Uttar Pradesh (Garhwal; Kumaun)

Scrophulariaceae

- I** *Adenosma malabaricum* Hook.f.
I India – Kerala (Malabar coast)
- I** *Anticharis glandulosa* Asch. var. *caerulea* Blatt.
& M. Hallb. 7772
I India – Rajasthan (Jaisalmer) 7771
- I** *Bonnaya bracteoides* Blatt. & M. Hallb. 7771
I India – Rajasthan (Mt Abu) 7771
- R** *Campylanthus ramosissimus* Wight
R 13883 India – Gujarat (Kutch) 13883
- I** *Christisonia saulieri* Dunn
I India – Tamil Nadu
- I** *Christisonia subacaulis* (Benth.) Gardner

BOTANICAL SURVEY OF INDIA

- I India – Tamil Nadu (Tirunelveli Hills)
- I *Lindernia minima* (Benth.) Mukherjee
I India – Tamil Nadu
- I *Veronica anagallis* L.var. *bracteosa* Blatt. &
M. Hallb. 7771
I India – Rajasthan (Mt Abu, Sirohu District)
7771
- I *Veronica anagallis- aquatica* L. var. *bracteata*
Blatt. & M. Hallb.
I India – Rajasthan
- I *Veronica beccabunga* L. var. *attenuata* Blatt. &
M. Hallb.
I India – Rajasthan

Solanaceae

- R *Pauia belladonna* Deb & R. Dutta
R 13883 India – Arunachal Pradesh (Tirap) 13883
- I *Solanum kurzii* Bruce ex Prain
I India – Tamil Nadu (Coimbatore Hills)

Sterculiaceae

- V *Eriolaena lushingtonii* Dunn 14782
V 14782 India – Andhra Pradesh 14782
V 14782 India – Tamil Nadu 14782
- E *Hildegardia populifolia* (Roxb.) Schott & Endl. 14782
E 14782 India – Andhra Pradesh 14782

RED LIST OF THREATENED VASCULAR PLANT SPECIES IN INDIA

- E** 14782 India – Tamil Nadu 14782
- I** *Melhania futteyporensis* Munro ex Masters var. *major*
(Blatt. & M. Hallb.) Santapau 7771
- I** India – Rajasthan (western) 7771
- I** *Melhania magnifolia* Blatt. & M. Hallb. 7771
- I** India – Rajasthan (western) 7771
- R** *Pterospermum reticulatum* Wight & Arn. 14782
- R** 14782 India – Karnataka 14782
- R** 14782 India – Kerala 14782
- R** 14782 India – Tamil Nadu 14782
- Ex** *Sterculia khasiana* Deb 11494
- Ex** 11494 India – Meghalaya (Khasi hills) 11494
- I** *Sterculia populnifolia* Roxb.
I India

Symplocaceae

- R** *Symplocos anamallayana* Bedd.
R 18228 India – Tamil Nadu 18228
- I** *Symplocos barberi* Gamble
I India – Tamil Nadu (Tirunelveli Hills)
- I** *Symplocos villosa* Brand
I India – Kerala (Peermade Hills, Travancore)

Theaceae

- E** *Adinandra griffithii* Dyer 11494
E 11494 India – Meghalaya (Khasi hills) 11494

BOTANICAL SURVEY OF INDIA

- R** *Cleyera japonica* Thunb. var. *grandiflora* (Wall. ex Choisy) Kobuski 14782
R 14782 India – Meghalaya 14782
I *Pyrenaria khasiana* R.N. Paul 14782
I 14782 India – Meghalaya 14782

Tiliaceae

- R** *Erinocarpus nimmonii* Graham 14782
R 14782 India – Karnataka 14782
R 14782 India – Maharashtra 14782

Ulmaceae

- E** *Ulmus wallichiana* Planch. 9159
E India – Jammu & Kashmir 9159

Umbelliferae (Apiaceae)

- I** *Acronema pseudotenera* P. K. Mukh. 13883
I 13883 India – Sikkim (Momay Samdong) 13883
I *Angelica nubigena* (C. B. Clarke) P. K. Mukh. 13883
I 13883 India – Sikkim (N.E at Chola and Yakla passes)
13883

Ex/E *Carum villosum* Haines 11494

Ex/E 11494 India – Bihar (Ramnagar, North Champaran)
11494

I *Chaerophyllum orientalis* (C. B. Clarke) P. K. Mukh. 13883

RED LIST OF THREATENED VASCULAR PLANT SPECIES IN INDIA

- I 13883 India – Arunachal Pradesh (Naga hills)
13883
- I ***Heracleum aquilegifolium* C.B. Clarke**
I India – Karnataka (Concan)
I India – Tamil Nadu
- I ***Heracleum jacquemontii* C.B. Clarke** 11494
I 11494 India (NW Himalaya) 11494
- R ***Hydrocotyle conferta* Wight** 13883
R 13883 India – Tamil Nadu (Nilgiri and Pulney
mountains) 13883
- Ex/E *Ligusticum albo-alatum* Haines** 11494
Ex/E 11494 India – Bihar (Samripat; Ranchi District)
11494
- Ex/E *Pimpinella evoluta* (C.B. Clarke)** P. K. Mukh. 11494
Ex/E 11494 India – Nagaland (Jakpho, Naga hills) 11494
- I ***Pimpinella flaccida* C. B. Clarke** 13883
I 13883 India – Nagaland (Kohima) 13883
- R ***Pimpinella katrajensis* Rao & Hemadri** 13883
R 13883 India – Maharashtra 13883
- Ex/E *Pimpinella pulneyensis* Gamble** 11494
Ex/E 11494 India – Tamil Nadu (Palani Hills, Madurai
Dist) 11494
- E ***Pimpinella tirupatiensis* N. P. Balakr. & Subr.**

BOTANICAL SURVEY OF INDIA

E 13883 India – Andhra Pradesh 13883

Ex/E *Pimpinella tongloensis* P. K. Mukh. 11494

Ex/E 11494 India – Assam (Singaleela Range) 11494

Ex/E 11494 India – Sikkim (Singaleela Range) 11494

R *Polyzygus tuberosus* Dalzell 14782

R 14782 India – Karnataka 14782

R 14782 India – Maharashtra 14782

I *Pternopetalum radiatum* (W. W. Sm.) P. K. Mukh. 11494

I 11494 India – Sikkim 11494

I *Schultzia benthami* C.B. Clarke

I India – Karnataka (Canara coast)

Urticaceae

I *Boehmeria tirapensis* Deb & R. Dutta

I India – Arunachal Pradesh (Tirap District)

Valerianaceae

I *Valeriana beddomei* C.B. Clarke

I India – Tamil Nadu

Verbenaceae

I *Clerodendrum lankawiense* King & Gamble var.

***andamanense* Moldenke 7771**

**I India – Andaman Is. (S. Andaman Is.)
7771**

RED LIST OF THREATENED VASCULAR PLANT SPECIES IN INDIA

- I *Premna paucinervis* (C.B. Clarke) Gamble**
I India – Tamil Nadu (Coimbatore)
I *Vitex wimberleyii* Kurz 7771
I India – Andaman Is. (S. Andaman Is.)
 7771

Violaceae

- I *Hybanthus travancoricus* (Bedd.) Melchior**
I India – Kerala
I India – Tamil Nadu
I *Viola himalayensis* W. Becker
I India – Jammu & Kashmir
I *Viola kunawarensis* Royle
I India (NW Himalaya)

Viscaceae

- E *Ginalloa andamanica* Kurz 14782**
E 14782 India – Andaman Is. (South) 7771
I *Viscum mysorense* Gamble 14782
I 14782 India – Karnataka 14782

Vitaceae

- I *Ampelocissus arnottiana* Planch. 10178**
I India – Karnataka (South Canara)
E India – Kerala (Quilon District) 10178
I India – Tamil Nadu (Tirunelveli)

BOTANICAL SURVEY OF INDIA

- I *Ampelocissus eriocladius* (Wight & Arn.) Planch.
I India – Tamil Nadu (Tirunelveli Hills)
- R *Cayratia pedata* (Lam.) Juss. ex Gagnep. var.
glabra Gamble 13883
R 13883 India – Tamil Nadu (Nilgiris) 13883
- V *Cayratia roxburghii* (Wight & Arn.) Gagnep. 11494
V 11494 India – Kerala (Trivandrum & Quilon Dist.)
11494
V 11494 India – Tamil Nadu (Tirunelveli District)
11494
- E *Cissus spectabilis* (Kurz) Planch. 14782
E 14782 India – Sikkim 14782
E 14782 India – West Bengal 14782
- I *Tetrastigma andamanicum* (King) Susseng. 7771
I India – Andaman Is. 7771

RED LIST OF THREATENED VASCULAR PLANT SPECIES IN INDIA

Liliopsida (monocots)

Alismataceae

- R** *Wiesneria triandra* (Dalzell) P. Michel. 14782
R 14782 India – Goa, Daman & Diu 14782
I India – Karnataka (Concan) 4988
E India – Kerala (nr Parappanangadi; Kottur)
5727
R 14782 India – Maharashtra (Sindhudurg district)
14782

Alliaceae

- E** *Allium auriculatum* Kunth
E India – Himachal Pradesh
E India – Jammu & Kashmir
E *Allium loratum* Baker
E India – Jammu & Kashmir
E *Allium roylei* Stearn
E India – Jammu & Kashmir
V *Allium stracheyi* Baker 14782
V 14782 India – Jammu & Kashmir 14782
V 14782 India – Uttar Pradesh 14782

Amaryllidaceae

- R** *Crinum eleonorae* Blatt. & McCann 11494

BOTANICAL SURVEY OF INDIA

R 11494 India – Maharashtra (Lingmala, Mahabaleshwar)

11494

I *Crinum pusillum* Herb. 7771

I 7771 India – Nicobar Is. 7771

I *Pancratium parvum* Dalzell

I India – Karnataka

Anthericaceae

R *Chlorophytum borivilianum* Santapau & R.R. Fernandes

R 13883 India – Gujarat 13883

R 13883 India – Maharashtra 13883

I *Chlorophytum glaucum* Dalzell

I India – Karnataka (Concan)

I *Chlorophytum malabaricum* Dalzell

I India (south Western Ghats)

Aponogetonaceae

I *Aponogeton appendiculatus* H. Bruggen 13883

I 13883 India – Kerala 13883

I 13883 India – Tamil Nadu 13883

V *Aponogeton satarensis* Sundararagh., A.R. Kulk. &

Yadav 11494

V 11494 India – Maharashtra (Satara District)

11494

RED LIST OF THREATENED VASCULAR PLANT SPECIES IN INDIA

Araceae

- I *Aglaonema nicobaricum* Hook. f. 7771
I India – Nicobar Is. 7771
- I *Alocasia montana* (Roxb.) Schott
I India – Andhra Pradesh (north Circars)
- I *Amorphophallus carnosus* Engl. 7771
I India – Andaman Is. 7771
- I *Amorphophallus dubius* Blume 20013
I India – Kerala (Malabar)
- I *Amorphophallus hohenackeri* Engl. 14727
I India – Karnataka (nr Mangalore, South Canara)
14727
- R *Amorphophallus longistylus* Kurz ex Hook. f. 7771
R 14782 India – Andaman Is. 14782
- R *Amorphophallus oncophyllum* Prain ex Hook. f. 7771
R 14782 India – Andaman Is. 7771
- R *Anaphyllum beddomei* Engl. 14727
R 14727 India – Tamil Nadu 14727
- I *Anaphyllum weightii* Schott 14727
I 14727 India – Kerala 14727
I 14727 India – Tamil Nadu 14727
- I *Arisaema attenuatum* Barnes & C. E. C. Fisch. 14727
I 14727 India 14727
- I *Arisaema auriculata* Barnes 14727
I 14727 India – Tamil Nadu (Nilambur Ghats)
18341
- I *Arisaema barnesii* C. E. C. Fisch.

BOTANICAL SURVEY OF INDIA

- I India – Karnataka
I India – Tamil Nadu
- I *Arisaema murrayi* Hook.f.
I India – Karnataka (Concan)
I India – Tamil Nadu (Nilgiri Hills)
- I *Arisaema psittacus* Barnes
I India – Kerala (Travancore Hills)
- I *Arisaema pulcherum* N.E. Br.
I India – Tamil Nadu (Sispara, Nilgiri Hills)
- I *Arisaema sarracenioides* Barnes & C. E. C. Fisch. 14727
I 14727 India (Naimakad gap and Munnar-Devicolam)
14727
- I *Arisaema translucens* C. E. C. Fisch. 14727
I India – Tamil Nadu (Nilgiri Hills)
14727
- I *Arisaema tuberculatum* C. E. C. Fisch. 4988
I India – Tamil Nadu (Nilgiri Hills) 4988
- I *Arisaema tylophorum* C. E. C. Fisch. 14727
I India – Tamil Nadu (Nilgiri Hills) 4988
- I *Arisaema wightii* Schott
I India – Tamil Nadu (Nilgiri Hills)
- I *Cryptocoryne cognata* Schott 14727
I 14782 India – Karnataka (Concan) 14782
- V *Cryptocoryne cognatoides* Blatt. & McCann 11494
V 11494 India – Karnataka (North Kanara) 11494
V 11494 India – Maharashtra 11494
- I *Cryptocoryne consobrina* Schott 14727
I India (Western Ghats)

RED LIST OF THREATENED VASCULAR PLANT SPECIES IN INDIA

- E** *Cryptocoryne tortuosa* Blatt. & McCann 11494
E 11494 India – Maharashtra (Mahabaleshwar, Satara)
11494
- I** *Cryptocoryne wightii* Schott
I India – Karnataka (Mysore)
I India – Kerala (Calicut)
- I** *Lagenandra meeboldii* (Engl.) C. E. C. Fisch.
I India – Karnataka (Agalhatti, Mysore)
I India – Kerala (Tuppanad, south Malabar)
- I** *Lagenandra undulata* Sastry 14727
I India – Arunachal Pradesh (Subansiri)
14727
- I** *Pothos armatus* C. E. C. Fisch. 14727
I India – Karnataka (Tambracheri Ghat, Malabar)
- I** *Pothos thomsonianus* Schott 14727
I India – Karnataka (Carnatic)
I India – Kerala (Travancore Hills) 14727
- R** *Theriophonum dalzellii* Schott 14727
R 14727 India – Karnataka 14727
R 14727 India – Maharashtra 14727
- I** *Theriophonum fischeri* Sivadasan 14727
I India – Kerala (central)
I India – Tamil Nadu (south-west) 14727
- V** *Theriophonum sivaganganum* (Ramam. & Seb.)
Bogner 14727
V 14727 India – Tamil Nadu 14727
- E** *Typhonium incurvatum* Blatt. & McCann 11494
E 11494 India – Maharashtra (Bombay-Sion) 11494

BOTANICAL SURVEY OF INDIA

Asparagaceae

I *Asparagus asiaticus* L.

I India – Karnataka (Bellary)

I *Asparagus fysoni* Macbr.

I India – Tamil Nadu (Nilgiri Hills)

I *Asparagus jacquemontii* Baker 14782

I 14782 India – Maharashtra 14782

I *Asparagusrottleri* Baker 14782

I 14782 India (Deccan Peninsula) 14782

Burmanniaceae

I *Haplothismia exanulata* Airy Shaw

I India – Kerala (Travancore; Cochin)

Colchicaceae

V *Iphigenia magnifica* Ansari & R. S. Rao 11494

V 11494 India – Karnataka 11494

V 11494 India - Maharashtra 11494

E *Iphigenia sahyadrica* Ansari & R. S. Rao 11494

E 11494 India – Karnataka (Halial, Hulical)

11494

V *Iphigenia stellata* Blatt. 11494

V 11494 India – Maharashtra (Satara & Kolhapur District) 11494

RED LIST OF THREATENED VASCULAR PLANT SPECIES IN INDIA

Commelinaceae

- I *Aneilema ochraceum* Dalzell**
- I India – Karnataka
 I India - Kerala (Quilon)
- E *Belosynapsis kewensis* Hassk.** 11494
- E .11494 India – Tamil Nadu (Tinnevelly & Kanyakumari)
 11494
- V *Belosynapsis vivipara* (Dalzell) Sprague &**
C. E. C. Fisch. 11494
- V 11494 India – Karnataka 11494
 V 11494 India – Maharashtra 11494
 V India – Tamil Nadu 9998
- R *Commelina hirsuta* (Wight) C.B. Clarke** 11494
- R 11494 India – Tamil Nadu (Nilgiri & Pulney Hills)
 11494
- R *Commelina indehiscens* Barnes** 14782
- R 14782 India – Karnataka 14782
 R 14782 India – Kerala 14782
 R 14782 India – Tamil Nadu 14782
- I *Commelina subulata* Roth**
- I India (Deccan hills)
- V *Commelina tricolor* Barnes** 11494
- V 11494 India – Tamil Nadu (Karadimalais) 11494
- V *Commelina wightii* R. S. Rao** 11494
- V 11494 India – Tamil Nadu (Nilgiri & Pulney Hills)
 11494
- R *Cyanotis burmanniana* Wight** 13883

BOTANICAL SURVEY OF INDIA

- R 13883 India – Kerala (Malabar) 13883
- I *Cyanotis cerifolia* R. S. Rao & Kammathy 13883
- I 13883 India – Tamil Nadu 13883
- I *Cyanotis vaginata* Wight
- I India – Kerala (Malabar)
- R *Dictyospermum ovalifolium* Wight 11494
- R India – Karnataka 9998
- R 11494 India – Kerala (Thenmalai) 11494
- R 11494 India – Maharashtra (Koncan) 11494
- V *Murdannia lanceolata* (Wight) Kammathy 11494
- V 11494 India – Kerala 11494
- V 11494 India – Tamil Nadu 11494
- R *Murdannia lanuginosa* (Wall. ex C. B. Clarke) Bruckn.
13883
- R 13883 India 13883
- I *Murdannia versicolor* (Dalzell) Bruckn.
- I India – Karnataka (Concan)
- I *Pollia pentasperma* C.B. Clarke 11494
- I 11494 India – Assam (Lushai hills) 11494
- I 11494 India – Meghalaya (Shillong) 11494
- I 11494 India – Nagaland (Kohima, Naga hills)
11494

Convallariaceae

- I *Ophiopogon intermedius* Don var. *gracilipes*
Hook.f.
- I India – Tamil Nadu (Nilgiri Hills)

RED LIST OF THREATENED VASCULAR PLANT SPECIES IN INDIA

- I** *Peliosanthes courtallensis* Wight
I India – Tamil Nadu
- I** *Polygonatum graminifolium* Hook. f.
I India (W. Himalaya)
- I** *Smilacina fusca* Wall.
I India – Meghalaya

Cyperaceae

- R** *Carex annulata* Kuek.
I India – Jammu & Kashmir 7771
- I** *Carex borii* Nelmes
I India – Himachal Pradesh
I India – Jammu & Kashmir
- I** *Carex christii* Arn. ex Boeckeler
I India – Tamil Nadu (Nilgiri Hills)
- I** *Carex fuscifructus* C.B. Clarke 11494
I 11494 India – Assam (Makum forests, Lakhimpur)
11494
- I** *Carex kingiana* C. B. Clarke 13883
I 13883 India – Sikkim 13883
- R** *Carex munroi* Boott ex C.B. Clarke 11494
R 7771 India – Himachal Pradesh (Kinnaur) 11494
- E** *Carex myosurus* Nees. var. *oraestans* (C.B. Clarke)
Kuek.
E India – Uttar Pradesh
- I** *Carex pseudoaperta* Kuek. 11494
I 11494 India – Tamil Nadu (Nilgiri Hills) 11494

BOTANICAL SURVEY OF INDIA

I *Carex rara* Boott

- I India – Assam
I India – Meghalaya

Ex *Carex repanda* C.B. Clarke 11494

- Ex 11494 India – Meghalaya (Cherrapunji; Shillong)
11494

I *Carex vicinalis* Boott 11494

- I 11494 India – Tamil Nadu (Nilgiri Hills)
11494

I *Carex wightiana* Nees

- I India – Kerala (Travancore)
I India – Tamil Nadu (Courtallum Hills)

I *Cyperus kurzii* C. B. Clarke 7771

- I India – Andaman Is. 7771

I *Fimbristylis aggregata* C. E. C. Fisch.

- I India – Tamil Nadu

I *Fimbristylis arnottiana* Boeckeler

- I India – Kerala (Cannanore)

I *Fimbristylis contorta* C. E. C. Fisch.

- I India – Tamil Nadu (Courtallum Hills)

R *Fimbristylis stolonifera* C.B. Clarke 11494

- I 11494 India – Manipur 11494
R 11494 India – Meghalaya (Khasi hills, Mawphlong)
11494

I *Hypolytrum balakrishnanii* Nooteboom 7771

- I India – Andaman Is. (South) 7771

RED LIST OF THREATENED VASCULAR PLANT SPECIES IN INDIA

- I *Kobresia duthiei* C.B. Clarke
I India – Himachal Pradesh
I India – Uttar Pradesh
- I *Kobresia trinervis* (Nees) Boeck. var. *foliosa*
(C.B. Clarke) Kuek.
I India – Uttar Pradesh
- I *Rhynchospora submarginata* Keukenth. 14782
I 14782 India – Kerala 14782
- I *Scleria alta* Boeck. 14721
E 14721 India – Assam 14721
I 14782 India – Meghalaya 14782
E 14721 India – West Bengal 14721
- E *Scleria bracteata* Cav. var. *assamica* C.B.
Clarke 14721
E 14721 India – Assam 14721

Dioscoreaceae

- I *Dioscorea belophylla* Voigt
I India (Western Ghats)
- I *Dioscorea kalkapershadii* Prain & Burkill
I India – Tamil Nadu (Shevaroy Hills, Salem Dist)
- I *Dioscorea oppositifolia* L. var. *dukhunensis* Prain
& Burkill
I India
- I *Dioscorea rogersii* Prain & Burkill 7771
I 14782 India – Andaman Is. 7771
- I *Dioscorea vexans* Prain & Burkill 7771

BOTANICAL SURVEY OF INDIA

- I India – Andaman Is. 7771
- I *Dioscorea wightii* Hook.f.
- I India – Kerala (Travancore Hills)
- I India – Tamil Nadu (Courtallum, Tirunelveli H.)

Eriocaulaceae

Ex/E *Eriocaulon barba-carpae* Fyson 14720

Ex/E 14720 India – Karnataka 14720

Ex/E 14720 India – Meghalaya 14720

Ex/E *Eriocaulon barbeyanum* Ruhl. 14720

Ex/E 14720 India – Karnataka 14720

I *Eriocaulon dalzellii* Koern.

I India – Karnataka (south Concan)

E *Eriocaulon europeplon* Koern 14720

E 14720 India – Gujarat 14720

E 14720 India – Maharashtra 14720

R *Eriocaulon gamblei* C. E. C. Fisch. 14720

R 14720 India – Tamil Nadu (Naduvattam, Nilgiri)
14720

R *Eriocaulon geoffreyi* Fyson 14720

R 14720 India – Tamil Nadu 14720

R *Eriocaulon gregatum* Koern 14720

R 14720 India – Meghalaya 14720

V *Eriocaulon humile* Moldenke 14782

V 14782 India – Maharashtra (western Ghats)
14782

I *Eriocaulon margaretae* Fyson

RED LIST OF THREATENED VASCULAR PLANT SPECIES IN INDIA

- I India – Karnataka (Rudrasiri, Mysore)
- R *Eriocaulon mysorense* Fyson 14720
- R 14720 India – Karnataka 14720
- E *Eriocaulon pectinatum* Ruhl. 14720
- E 14720 India – Tamil Nadu (Nilgiri Hills) 2268
- I *Eriocaulon pumilo* Hook. f.
- I India – Uttar Pradesh
- R *Eriocaulon thomasi* Fyson 14720
- R 14720 India – Karnataka 14720
- R 14720 India – Maharashtra 14720

Gramineae (Poaceae)

- I *Agropyron duthiei* Meld.
- I India – Himachal Pradesh
- I India – Uttar Pradesh
- I *Agrostis schmidii* (Hook.f.) Bor
- I India – Tamil Nadu
- I *Andropogon longipes* Hackel
- I India – Tamil Nadu (Nilgiri Hills)
- I *Arthraxon depressus* Stapf ex C. E. C. Fisch.
- I India – Karnataka (Agalatti, Mysore)
- I *Arthraxon meeboldii* Stapf
- I India – Karnataka (Mangalore)
- I *Arundinaria densiflora* Munro 20892
- I India – Kerala
- R *Bhidea burnsiana* Bor 11494
- R 11494 India – Karnataka 11494
- R 11494 India – Maharashtra 11494

BOTANICAL SURVEY OF INDIA

- I *Calamagrostis decora* Hook.f.
I India – Jammu & Kashmir
- I *Catabrosa aquatica* (L.) P. Beauv. var. *angusta*
Stapf 7771
I India – Jammu & Kashmir (Ladakh) 7771
- I *Cenchrus prieurii* (Kunth) Maire var. *scabra*
Bhandari
I India – Rajasthan (west) 7771
- I *Cenchrus rajasthanensis* Kanodia & Nanda 7771
I India – Rajasthan (Jaisalmer & Jodhpur)
7771
- R *Cephalostachyum capitatum* Munro var. *decomposita*
Gamble 14723
R 14723 India – Sikkim 14723
- I *Chrysopogon velutinus* (Hook.f.) Bor
I India – Andhra Pradesh (Cuddapah)
- R *Coelachne minuta* Bor 11494
R 11494 India – Maharashtra 11494
- R *Cymbopogon flexuosus* (Nees ex Steudel) Watson var.
microstachys (Hook.f.) Bor
E India – Uttar Pradesh
- V *Cymbopogon osmastonii* R. Parker 14872
I India – Uttar Pradesh
- I *Cymbopogon ramnagarensis* B.K. Gupta
I India – Jammu & Kashmir
- I *Deyeuxia kashmeriana* Bor
I India – Jammu & Kashmir
- Ex/E *Deyeuxia simlensis* Bor 11494

RED LIST OF THREATENED VASCULAR PLANT SPECIES IN INDIA

- Ex/E** 11494 India – Himachal Pradesh (Simla) 11494
- R** *Dichanthium armatum* (Hook.f.) Blatt. & McCann 11494
- R 11494 India – Maharashtra 11494
- R** *Dichanthium compressum* (Hook.f.) Jain & Deshpande 11494
- R 11494 India – Maharashtra (Pune District) 11494
- V** *Dichanthium maccannii* Blatt. 11494
- V 11494 India – Maharashtra (Panchagani, Satara Dist.) 11494
- I** *Dichanthium pallidum* (Hook.f.) Stapf ex C. E. C. Fisch.
- I India – Tamil Nadu (Nilgiri Hills)
- R** *Dichanthium panchaganense* Blatt. & McCann 13883
- R 13883 India – Maharashtra 13883
- V** *Dichanthium woodrowii* (Hook.f.) Jain & Deshpande 11494
- V 11494 India – Maharashtra (Paud, Mawal taluka, Pune) 11494
- R** *Dimeria blatterii* Bor 13883
- R 13883 India – Maharashtra (Western Ghats in Pune and Ratnagiri districts) 13883
- R** *Dimeria woodrowii* Stapf 11494
- R 11494 India – Goa, Daman & Diu 11494
- R 11494 India – Karnataka 11494
- R 11494 India – Maharashtra 11494
- Ex** *Eragrostis rottleri* Stapf 11494
- Ex 11494 India – Tamil Nadu (Tranquebar) 11494
- Ex** *Eriochrysis rangacharii* C. E. C. Fisch. 11494
- Ex 11494 India – Tamil Nadu (Paikara, Nilgiri

BOTANICAL SURVEY OF INDIA

District) 11494

- E** *Festuca levingei* Stapf
E India – Jammu & Kashmir
- I** *Festuca lucida* Stapf
I India – Himachal Pradesh
I India – Jammu & Kashmir
I India – Uttar Pradesh
- I** *Garnotia schmidii* Hook.f.
I India – Tamil Nadu (Nilgiri Hills)
- R** *Glyphochloa divergens* (Hook.) Clayton 11494
R 11494 India – Karnataka 11494
- V** *Glyphochloa talbotii* (Hook.f.) Clayton 11494
V 11494 India – Goa, Daman & Diu 11494
- R** *Glyphochloa santapaui* (Jain & Deshpande)
Clayton 13883
R 13883 India – Maharashtra (Ratnagiri District)
13883
- I** *Heteropogon bellariensis* (Hackel) C. E. C. Fisch.
I India – Andhra Pradesh
- I** *Heteropogon polystachyos* (Roxb.) Schult.
I India (Peninsular India)
- Ex** **Hubbardia heptaneuron* Bor 11494
Ex 11494 India – Karnataka (Gersoppa Falls, north
Canara) 11494
- I** *Isachne angladei* C. E. C. Fisch. 14724
I India – Tamil Nadu (endemic to Anaimalai and
Palni Hills.) 14724

* Recently rediscovered in Maharashtra

RED LIST OF THREATENED VASCULAR PLANT SPECIES IN INDIA

- I** *Isachne deccanensis* Bor 14724
I India – Tamil Nadu (Nilgiri Hills)
14724
- R** *Isachne dimyloides* Bor 14724
R 14724 India – Sikkim 14724
- R** *Isachne fischeri* Bor 11494
R 11494 India – Kerala 11494
- I** *Isachne lisboae* Hook.f. 11494
I 11494 India – Karnataka 11494
I 11494 India – Maharashtra (Panchgani;
Mahabaleshwar) 11494
- R** *Isachne oreades* (Domin) Bor 14724
R 14724 India – Tamil Nadu (Nilgiri Hills) 14724
- R** *Isachne setosa* Hook. f. 14724
R 14724 India – Karnataka 14724
R 14724 India – Kerala 14724
R 14724 India – Tamil Nadu 14724
- I** *Ischaemum kingii* Hook.f.
I India – Rajasthan (Mt Abu)
- R** *Ischaemum raizadae* Haemadri & Billore 13883
R 13883 India – Maharashtra (three districts)
13883
- I** *Ischaemum santapaui* Bor
I India – Gujarat (Dangs)
I India – Maharashtra (Karjat)
- I** *Ischnochloa falconeri* Hook.f.
I India – Uttar Pradesh

BOTANICAL SURVEY OF INDIA

- R** *Limnopoa meeboldii* (C. Fischer) C.E. Hubb. 11494
R 14724 India – Kerala 11494
- I** *Lophochloa clarkeana* (Domin) Bor
I India – Jammu & Kashmir
- R** *Ochlandra ebracteata* Raizada and Chatterjee 14723
R 14723 India – Kerala 14723
- R** *Ochlandra setigera* Gamble 14723
R 14723 India – Tamil Nadu 14723
- R** *Ochlandra sivagiriana* Camus 14723
R 14723 India – Tamil Nadu (Sivagiri and Pulney Hills)
14723
- I** *Oryza jeyaporensis* Govindasw. & Krishnam.
I 7771 India – Orissa (Jeyapore Tract) 7771
- I** *Oryzopsis humilis* Bor
I India – Uttar Pradesh
- I** *Oryzopsis stewartiana* Bor
I India – Himachal Pradesh
- I** *Phyllostachys assamica* Gamble ex Brandis 14723
I 14723 India – Arunachal Pradesh 14723
- I** *Poa pseudamoena* Bor
I India – Uttar Pradesh (Kumaun, Garhwal)
- E** *Poa rhadina* Bor
E India – Uttar Pradesh (Tehri Garhwal)
- I** *Pseudodanthonia himalaica* (Hook.f.) Bor & C.E. Hubb.
I India – Uttar Pradesh
- R** *Puccinellia kashmiriana* Bor
R 13883 India – Himachal Pradesh 13883
R 13883 India – Jammu & Kashmir 13883

RED LIST OF THREATENED VASCULAR PLANT SPECIES IN INDIA

- I** *Puccinellia thomsonii* J. Stewart
 I India – Jammu & Kashmir
- E** *Schizachyrium impressum* (Hackel) A. Camus
 E India – Jammu & Kashmir
- R** *Schizachyrium paranjpyeanum* (Bhide) Raizada &
 Jain 13883
 R 13883 India – Karnataka 13883
 R 13883 India – Maharashtra 13883
- R** *Semiarundinaria pantlingii* Gamble 14723
 R 14723 India – Arunachal Pradesh 14723
 R 14723 India – Sikkim 14723
- I** *Stipa chitralensis* Bor
 I India – Jammu & Kashmir
- I** *Teinostachyum beddomei* C. E. C. Fisch.
 I India – Kerala (Travancore Hills)
 I India – Tamil Nadu (Nilgiri Hills)
- I** *Trisetum micans* (Hook.f.) Bor
 I India – Jammu & Kashmir
 I India – Uttar Pradesh (Tehri Garhwal)

Hyacinthaceae

- Ex** *Dipcadi concanense* (Dalzell) Baker 11494
 Ex 11494 India (south) 11494
- E** *Dipcadi maharashrensis* Deb & S. Dasgupta 11494
 E 11494 India – Maharashtra (Panchgani plateau)
 11494
- I** *Dipcadi minor* Hook.f. 11494

BOTANICAL SURVEY OF INDIA

- I 11494 India – Maharashtra (Deccan Plateau)
11494
- I *Dipcadi montanum* (Dalzell) Baker var. *madrasicum*
(Barnes) Deb & S. Dasgupta
I India – Tamil Nadu
- Ex *Dipcadi reidii* Deb & S. Dasgupta 11494
Ex 11494 India (W. Himalaya) 11494
- V *Dipcadi saxorum* Blatt. 11494
V 11494 India – Maharashtra (Borivali NP) 11494
- R *Drimia razii* Ansari 13883
R 13883 India – Maharashtra 13883
- E *Scilla viridis* Blatt. & M. Hallb. 11494
E 11494 India – Maharashtra 11494
- Ex *Urginea polypylla* Hook.f. 11494
Ex 11494 India (Deccan Plateau) 11494

Hydrocharitaceae

- I *Hydrilla polysperma* Blatt.
I India – Rajasthan (Mt Abu)

Iridaceae

- I *Iris duthiei* Foster
I India – Uttar Pradesh (Kumaun)
- I *Iris milesii* Foster
I India – Himachal Pradesh

RED LIST OF THREATENED VASCULAR PLANT SPECIES IN INDIA

I India – Jammu & Kashmir

Juncaceae

R *Juncus sikkimensis* Hook.f. 14782

R 14782 India – Sikkim 14782

I *Microschoenus duthiei* C.B. Clarke 11494

I 11494 India – Uttar Pradesh 11494

Lemnaceae

I *Lemna maxima* Blatt. & M. Hallb.

I India – Rajasthan (Mt Abu)

I *Lemna minima* Blatt. & M. Hallb.

I India – Rajasthan (Mt Abu)

Liliaceae

E *Lilium mackliniae* Sealy 11494

E 11494 India – Manipur (Shirhoy Hill) 11494

I *Lilium neilgherrense* Wight

I India – Karnataka

I India – Tamil Nadu 2268

I *Lilium wallichianum* Schultes f. 7771

I India – Uttar Pradesh (Chamoli Dist. Kumaun)
7771

R *Lloydia himalensis* Royle 13883

R 13883 India – Himachal Pradesh (Simla) 13883

BOTANICAL SURVEY OF INDIA

R 13883 India – Jammu & Kashmir 13883

R 13883 India – Sikkim (tsomgo) 13883

Marantaceae

I *Phrynum cadellianum* Baker 7771

I India – Andaman Is. 7771

I *Phrynum paniculatum* N. P. Balakr. 7771

I India – Nicobar Is. (Gt. Nicobar Is.)
7771

I *Stachyphrynum spicatum* (Roxb.) Schumann 4988

I India – Karnataka 4988
I India – Kerala 9336

Orchidaceae

I II *Aerides fieldingii* Williams 4300

I India – Assam 4300
I India – Meghalaya (Khasi hills) 4300
I India – Sikkim 4300

I II *Aerides vandara* Reichb. 4300

I India – Assam 4300
I India – Meghalaya (Khasi hills) 4300
I India – Nagaland 4300

E II *Anoectochilus nicobaricus* Balakr. & Chakrab. 5231

E 11494 India – Nicobar Is. (Great Nicobar)
11494

Ex/EIII *Anoectochilus rotundifolius* (Blatt.) N. P. Balakr. 11494

RED LIST OF THREATENED VASCULAR PLANT SPECIES IN INDIA

Ex/E11494 India – Tamil Nadu (High Wavy Mts, Madura)

11494

I II *Anoectochilus sikkimensis* King & Pantl. 4300

I India – Sikkim 4300

V II *Anoectochilus tetraphterus* Hook.f. 11494

V 11494 India – Manipur 11494

Ex/EII*Aphyllorchis gollani* Duthie 11494

Ex/E11494 India – Uttar Pradesh (Tehri-Garhwal) 11494

I II *Aphyllorchis vaginata* Hook.f.

I India – Meghalaya (Khasi hills)

R II *Arachnis clarkei* (Reichb.f.) J.J. Smith 4300

I India – Arunachal Pradesh

I India – Meghalaya

I India – Sikkim 4300

R II *Archineottia microglottis* (Duthie) S.C. Chen 11494

R 11494 India – Uttar Pradesh 11494

I II *Biermannia jainiana* S.N. Hegde & A. N. Rao

10260

I India – Arunachal Pradesh 9416

R II *Bulbophyllum acutiflorum* A. Rich. 11494

R 11494 India – Tamil Nadu 11494

R II *Bulbophyllum albidum* (Wight) Hook.f. 11494

R 11494 India – Tamil Nadu 11494

R II *Bulbophyllum aureum* (Hook.f.) J.J. Smith 11494

R 11494 India – Kerala (Muthukuzhivayal, Wynnaad)

11494

V II *Bulbophyllum elegantulum* (Rolfe) J.J. Smith 11494

V 11494 India – Karnataka (Coorg) 11494

BOTANICAL SURVEY OF INDIA

V 11494 India – Tamil Nadu (Kudini, Nilgiri hills)

11494

I II *Bulbophyllum fusco-purpureum* Wight

I India – Tamil Nadu (Nilagiri Hills)

4988

V II *Bulbophyllum kaitiense* (Wight) Reichb. f. 13883

V 13883 India – Tamil Nadu (Nilgiris) 13883

I II *Bulbophyllum mysorensis* J.J. Smith

I India – Karnataka (Mysore Hills) 4988

I II *Bulbophyllum rauii* Arora

I India – Uttar Pradesh (Kumaun)

E II *Bulbophyllum rothschildianum* (O'Brien) J.J.

Smith 16294

E 16294 India (hills in northeastern India)

16294

I II *Bulleyia yunnanensis* Schltr. 20756

I India – Arunachal Pradesh

I India – West Bengal (Darjeeling)

I II *Calanthe alismaefolia* Lindl.

I India – Arunachal Pradesh

I India – Meghalaya (Khasi hills)

I India – Uttar Pradesh (Mussoorie)

R II *Calanthe alpina* Hook.f.

R 13883 India – Sikkim 13883

R 13883 India – Uttar Pradesh (Garhwal; Kumaun)

13883

I II *Calanthe herbacea* Lindl.

I India – Sikkim

RED LIST OF THREATENED VASCULAR PLANT SPECIES IN INDIA

Ex II *Calanthe whiteana* King & Pantl.

Ex India – Sikkim (Choongthang)

I II *Chrysoglossum hallbergii* Blatt. 11494

I 11494 India – Tamil Nadu (High Wavy Mts, Madura)
11494

I II *Cirrhopetalum acutiflorum* Hook.f. 4988

I India – Tamil Nadu (Nilgiri Hills) 4988

I II *Coelogyne angustifolia* Wight

I India – Tamil Nadu (Nilgiri Hills) 4988

I II *Coelogyne barbata* Griff. 4300

I India – Meghalaya (Khasi hills) 4300
I India – Sikkim 4300

R II *Coelogyne cristata* Lindl. 4300

I India – Assam 4300
I India – Meghalaya (Khasi hills) 4300
I India – Sikkim 4300

I II *Coelogyne flaccida* Lindl. 4300

I India – Meghalaya (Khasi & Jaintia hills)
4300

V II *Coelogyne mossiae* Rolfe 11494

V 11494 India – Kerala (Idukki) 11494

V 11494 India – Tamil Nadu 11494

R II *Coelogyne nitida* (Wall. ex Don) Lindl. 4300

I India – Assam 4300
I India – Meghalaya (Khasi hills) 4300
I India – Sikkim 4300

I II *Coelogyne prolifera* Lindl. 4300

I India – Assam 4300

BOTANICAL SURVEY OF INDIA

I India – Meghalaya (Khasi Hills) 4300

I India – Nagaland 4300

Ex/E III *Coelogyne treutleri* Hook.f. 11494

Ex/E 11494 India – Sikkim (Sikkim Himalaya) 11494

E II *Cymbidium whiteae* King & Pantl. 11494

E 11494 India – Sikkim 11494

R II *Dendrobium arachnites* Reichb.f.

R 13883 India 13883

I II *Dendrobium gamblei* King & Pantl.

I India – Uttar Pradesh (Dehra Dun)

I II *Dendrobium microbulbon* A. Rich.

I India – Gujarat

I India – Maharashtra

I India – Tamil Nadu

I II *Dendrobium normale* Falc.

I India – Uttar Pradesh

E II *Dendrobium pauciflorum* King & Pantl.

E India – Sikkim

E India – West Bengal

I II *Dendrobium pensile* Ridley 9272

I 14736 India – Nicobar Is. (Great Nicobar)

5231

E II *Dendrobium tenuicaule* Hook. f. 7771

E 14782 India – Andaman Is. (middle Andamans)

7771

E II *Didiccia cunninghamii* King & Prain ex King &

Pantl. 11494

RED LIST OF THREATENED VASCULAR PLANT SPECIES IN INDIA

E 11494 India – Sikkim (Lachen Valley) 11494

E 11494 India – Uttar Pradesh (Garhwal Himalaya)
11494

I II *Diglyphosa macrophylla* King & Pantl.

I India – Sikkim

I II *Diplomeris pulchella* D. Don 11494

V 11494 India – Arunachal Pradesh (Namdapha FoR, Tirap
Dist.) 11494

I 11494 India – Meghalaya (Khasi & Garo hills)
11494

I II *Disperis monophylla* Blatt. ex C. E. C. Fisch.

I India – Tamil Nadu (High Wavy Mtns, Madurai)
4988

I II *Epipogium sessanum* Hegde & A. N. Rao 9416

I India – Arunachal Pradesh 9416

R II *Eria albiflora* Rolfe

R 13883 India – Tamil Nadu (Western Ghats) 13883

R II *Eria occidentalis* Seidenf. 11494

R 11494 India – Uttar Pradesh (Kumaun) 11494

I II *Eulophia candida* (Lindl.) Reichb.f.

I India - Assam

I India – Sikkim

I II *Eulophia cullenii* (Wight) Blume 9216

I India – Kerala (Travancore Hills) 9216

I India – Tamil Nadu 4988

R II *Eulophia mackinnonii* Duthie 11494

R 11494 India – Madhya Pradesh 11494

R 11494 India – Uttar Pradesh 11494

BOTANICAL SURVEY OF INDIA

E II *Eulophia nicobarica* N. P. Balakr. & N.G. Nair 7771

E 13883 India – Nicobar Is. 7771

I II *Eulophia obtusa* (Lindl.) Hook.f.

I India – Uttar Pradesh

I II *Eulophia ramentacea* Lindl. ex Wight

I India (Western Ghats; ? Deccan P.)

I India – Gujarat

I India - Karnataka

E II *Flickingeria hesperis* Seidenf. 11494

E 11494 India – Uttar Pradesh (Askot; Kumaun)

11494

I II *Galeola cathcartii* Hook.f.

I India – Sikkim

I II *Galeola falconeri* Hook.f.

I India – Arunachal Pradesh (Kameng)

I India – Sikkim

I India – Uttar Pradesh (Garhwal)

I II *Galeola lindleyana* Reichb.f. 4300

I India - Meghalaya 4300

I India – Nagaland 4300

I India – Sikkim 4300

I II *Gastrodia dyeriana* King & Pantl.

I India – Sikkim

I II *Gastrodia exilis* Hook.f. 9249

I India – Meghalaya (Jaintia hills) 9249

I II *Goodyera recurva* Lindl.

I India – Meghalaya (Khasi hills)

R II *Habenaria andamanica* Hook. f. 7771

RED LIST OF THREATENED VASCULAR PLANT SPECIES IN INDIA

R 14782 India – Andaman Is. (South Andaman Is.)

7771

R II *Habenaria barnesii* Summerh. ex C. E. C. Fisch. 11494

R 11494 India – Kerala (Idukki) 11494

R 11494 India – Tamil Nadu (Nilgiri Hills) 11494

I II *Habenaria denticulata* Reichb.f.

I India – Tamil Nadu 4988

I II *Habenaria fimbriata* Wight

I India – Tamil Nadu (Nilgiri Hills) 4988

R II *Habenaria panchganiensis* Santapau & Kapadia 14782

R 14782 India – Maharashtra 14782

I II *Habenaria polyodon* Hook.f. 2268

I India – Tamil Nadu (Nilgiri Hills) 2268

I II *Habenaria richardiana* Wight

I India – Kerala (Travancore) 4988

I India – Tamil Nadu 4988

I II *Hetaeria ovalifolia* (Wight) Benth. 4988

I India – Kerala 11153

**I India – Tamil Nadu (Courtallum, Tirunelveli
Hills) 4988**

E II *Ipsea malabarica* (Reichb.f.) Hook.f. 11494

**E 11494 India – Kerala (Silent Valley, Palghat Dt)
11494**

I II *Liparis beddomei* Ridley

I India – Tamil Nadu (Palani Hills) 4988

V II *Liparis biloba* Wight 11494

**V 11494 India – Tamil Nadu (Kollimund, Nilgiri
Hills) 11494**

BOTANICAL SURVEY OF INDIA

I II *Liparis duthiei* Hook.f.

I India – Tamil Nadu (Nilgiri Hills)
4988

I II *Liparis platyphylla* Ridley

I India – Tamil Nadu 4988

I II *Liparis pulchella* Hook.f.

I India – Meghalaya
I India - Nagaland

E II *Malleola andamanica* N. P. Balakr. & Bhargava 11494

E 11494 India – Andaman Is. (Little & south Andamans)
11494

I II *Neottia kashmiriana* (Duthie) P. Beauv.

I India – Jammu & Kashmir

I II *Nervilia biflora* (Roxb.) Schltr.

I India – Kerala (Malabar, Wynnaad) 4988

I II *Nervilia mackinnonii* (Duthie) Schltr.

I India – Uttar Pradesh (Mussoorie; Kumaun)

I II *Oreorchis indica* (Lindl.) Hook.f.

I India – Himachal Pradesh (Simla)

I India – Uttar Pradesh (Garhwal; Kumaun)

I II *Oreorchis rolfei* Duthie 11494

I India – Uttar Pradesh

E I *Paphiopedilum druryi* (Bedd.) Stein 11494

E 4988 India – Kerala (Travancore & Kalakkad Hills)
11494

E I *Paphiopedilum fairrieanum* (Lindl.) Stein 11494

E 11494 India – Arunachal Pradesh 11494

E 11494 India – Sikkim 11494

RED LIST OF THREATENED VASCULAR PLANT SPECIES IN INDIA

R I *Paphiopedilum hirsutissimum* (Lindl. & Hook.)

Stein 4300

R 14782 India 14782

I India – Manipur 4300

R I *Paphiopedilum wardii* Summerh. 11494

E 11494 India – Arunachal Pradesh 11494

I II *Peristylus brachyphyllus* A. Rich.

I India – Karnataka 4988

I India – Tamil Nadu (Nilgiri Hills) 4988

I II *Peristylus secundus* (Lindl.) Rathakr.

I India – Karnataka 4988

I India – Kerala 4988

I India – Tamil Nadu 4988

I II *Phaius mishmensis* Reichb.f. 4300

I India – Assam (Upper Assam) 4300

I India – Meghalaya 4300

I India – Sikkim 4300

E II *Phalaenopsis speciosa* Reichb.f. var.

speciosa 5231

E India – Andaman Is. 5231

E India – Nicobar Is. 5231

I II *Pholidota calceata* Reichb.f.

I India – Meghalaya (Khasi Hills)

R II *Pholidota wattii* King & Pantl. 11494

R 11494 India – Arunachal Pradesh (Subansiri)

11494

R 11494 India – Assam (North Cachar) 11494

Ex II *Pleione lagenaria* Lindl. 11494

BOTANICAL SURVEY OF INDIA

Ex 11494 India – Meghalaya (Khasi hills) 11494

I I *Renanthera imschootiana* Rolfe

E 11494 India – Manipur 11494

E 11494 India – Mizoram 11494

E 11494 India – Nagaland 11494

I II *Rhynchostylis latifolia* C. E. C. Fisch. 4988

I India – Karnataka (Cadamany, Mysore)
4988

I II *Risleya atropurpurea* King & Pantl.

I India – Sikkim

E II *Taeniophyllum andamanicum* N. P. Balakr. &

Bhargava 11494

E 11494 India – Andaman Is. 11494

R I *Vanda coerulea* Griff. ex Lindl. 4300

R 14782 India – Arunachal Pradesh 10868

R 14782 India – Assam 10868

R 14782 India – Manipur 14782

R 14782 India – Meghalaya 4300

R 14782 India – Mizoram 10868

R 14782 India – Nagaland 14782

Ex/E III *Vanda wightii* Reichb.f. 11494

Ex/E 11494 India – Tamil Nadu 11494

I II *Vanilla walkeriae* Wight

I India – Karnataka (Jerganhalli, Mysore) 9139

I India – Kerala (Travancore Hills) 4988

I India – Tamil Nadu (Coimbatore hills) 4988

V II *Vanilla wightiana* Lindl. ex Hook.f. 11494

V 11494 India – Kerala (Tinnevelly; Kanyakumari)

11494

RED LIST OF THREATENED VASCULAR PLANT SPECIES IN INDIA

I II *Zeuxine andamanica* King & Pantl. 7771

I India – Andaman Is. (South Andaman Is.)
7771

Ex/EIII*Zeuxine pulchra* King & Pantl. 11494

Ex/E 11494 India – Meghalaya (Khasi hills) 11494
Ex/E 11494 India – Sikkim (Lachung Valley) 11494

I II *Zeuxine rolffiana* King & Pantl. 7771

I India – Andaman Is. (south Andaman Is.)
7771

Palmae (Arecaceae)

V *Arenga wightii* Griff. 14827

V 14827 India – Karnataka 14827
V 14827 India – Kerala 14827
V 14827 India – Tamil Nadu 14827

R *Bentinckia condapanna* Berry 13883

R 14827 India – Kerala 14827
R 13883 India – Tamil Nadu (S Travancore & Tirunelveli
Hills) 13883

V *Bentinckia nicobarica* (Kurz) Becc. 14827

V 14827 India – Nicobar Is. 14827

V *Calamus andamanicus* Kurz 14827

V 14827 India – Andaman Is. 14827

I *Calamus brandisii* Becc. ex Becc. & Hook.f. 4988

I India – Karnataka (Canara) 4988
I India – Kerala (Courtallum Hills) 10235
I India – Tamil Nadu (Courtallum Hills)
4988

BOTANICAL SURVEY OF INDIA

- R *Calamus dilaceratus* Becc. 14782
 - R 14782 India – Andaman Is. 14782
- R *Calamus huegelianus* Mart. 10235
 - R India – Tamil Nadu (Nilgiri Hills) 18341
- V *Calamus inermis* T. Anderson 14827
 - V 14827 India – Sikkim 14827
 - V 14827 India – West Bengal 14827
- V *Calamus nagbettai* R.R. Fernandez & Dey 14827
 - V 14827 India – Karnataka (Coorg & south Kanara) 14827
- R *Calamus nicobaricus* Becc. 10235
 - R India – Nicobar Is. (Great Nicobar) 10235
- R *Corypha macropoda* Kurz 14782
 - R 14782 India – Andaman Is. (south) 14782
- Ex *Corypha taliera* Roxb. 14827
 - Ex 14827 India (Bengal) 14827
- R *Corypha umbraculifera* L. 17661
 - R 17661 India – Kerala (Malabar coast) 4988
- R *Daemonorops manii* Becc. 10235
 - R India – Andaman Is. 10235
- V *Hyphaene dichotoma* (White) Furt. 17661
 - V 17661 India – Gujarat 4988
 - V 17661 India – Maharashtra 4988
- R *Korthalsia rogersii* Becc. 10670
 - R 14782 India – Andaman Is. (type coll. only, 1904) 10670
- V *Phoenix rupicola* T. Anderson 14827

RED LIST OF THREATENED VASCULAR PLANT SPECIES IN INDIA

- V 14827 India -- Arunachal Pradesh 10235
V 14827 India – Meghalaya 10235
V 14827 India – Sikkim 10235
R *Pinanga andamanensis* Becc. 14827
R 14827 India – Andaman Is. 13883
V *Pinanga dicksonii* Blume 14827
V 14827 India – Kerala (Nilgiri Hills) 10235
V 14827 India – Tamil Nadu (Western Ghats)
10235
V *Pinanga manii* Becc. 14827
V 13883 India – Andaman Is. (south) 13883
V 13883 India – Nicobar Is. 13883
V *Rhopaloblaste augusta* (Kurz) H.E. Moore 10526
V 14827 India – Nicobar Is. (northern group)
10526
R *Wallichia triandra* (Joseph) S.K. Basu 14827
R 14827 India – Arunachal Pradesh (Haylung, Wakroo,
Lohit) 11494

Pandanaceae

- I** *Pandanus canaranus* Warb.
I India – Karnataka (Mangalore)

Smilacaceae

- R** *Smilax wightii* A. DC. 11494
R 11494 India – Tamil Nadu (Nilgiri Hills)
11494

Zingiberaceae

- I *Amomum hypoleucum* Thwaites 8021
I India – Tamil Nadu
- R *Amomum microstaphanum* Baker 13883
R 13883 India – Karnataka (Concan) 13883
R 13883 India – Tamil Nadu 13883
- I *Boesenbergia albo-lutea* (Baker) Schecht. 7771
I India – Andaman Is. 7771
- I *Boesenbergia pulcherrima* (Wall.) Kuntze
I India – Karnataka (Western Ghats)
I India – Kerala
- I *Cautleya petiolata* Baker
I India – Himachal Pradesh
I India – Uttar Pradesh
- I *Curcuma decipiens* Dalzell
I India (Western Ghats)
- R *Curcuma montana* Roxb.
I India – Karnataka
R 18228 India – Tamil Nadu 18228
- I *Globba pauciflora* Baker 7771
I India – Andaman Is. (S. Andaman Is.)
7771
- I *Hedychium calcaratum* A. S. Rao & D. M. Verma
I India – Meghalaya (Khasi hills)
- I *Hedychium dekianum* A. S. Rao & D. M. Verma
I India – Meghalaya (Khasi & Jaintia hills)

RED LIST OF THREATENED VASCULAR PLANT SPECIES IN INDIA

- I *Hedychium gracillimum* A. S. Rao & D. M. Verma**
I India – Meghalaya (Khasi hills)
- I *Hedychium gratum* A. S. Rao & D. M. Verma**
I India – Meghalaya (Khasi hills)
- I *Hedychium longipedunculatum* Sastry & Verma**
I India – Arunachal Pradesh (Subansiri)
- Ex *Hedychium marginatum* C.B. Clarke**
Ex India – Nagaland
- I *Hedychium rubrum* A. S. Rao & D. M. Verma**
I India – Meghalaya
- I *Kaempferia rotunda* L.**
I India -- Kerala (Trivandrum)
- I *Kaempferia siphonantha* Baker 7771**
I India – Andaman Is. 7771
- V *Paracautleya bhatii* R. M. Sm. 13883**
V 13883 India – Karnataka (South Kanara Dist.,
Manipal) 13883
- I *Zingiber cernuum* Dalzell**
I India – Karnataka (Concan)

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