

A Survey of the Economic Plants of Sri Lanka

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Sri Lanka, because of its geographical position and its physical features, has a relatively wide range of climatic regions and a correspondingly rich and varied flora. This flora remained more or less undisturbed by man up to about 500 B.C. From then onwards various crop plants e.g. rice, millets, sugar-cane and sesamum, along with mango, tamarind, jak and certain other trees, and settled agriculture were introduced to the island from the Indian sub-continent. Further, from very early times Sri Lanka served as a trading centre between the East and the West and traders from different countries seem to have brought here a number of plants. More recently, during the last three or four centuries, several hundred plant species — many of them from the New World — have been introduced to the island. A large number of these alien plants have now become naturalised in Sri Lanka and are among the commonest plants seen along roadsides, waste ground and as weeds of cultivated land. In this paper, I shall not deal with the latter group of plants and shall confine attention to the indigenous species and some of the very early introductions.

Even though our vegetation has been much disturbed for almost 2500 years and the original forests are now restricted to a very few small areas, we still have a rich flora with nearly 3000 indigenous species of which about 850 are endemic to the island. No complete survey has yet been made of the useful products that could be obtained from these plants. What we now know about them, comes mainly from the accumulated traditional knowledge which again is based on empirical observations. According to the information available, about 780 of the indigenous flowering plants and nearly 70 of the early introductions could be used as sources of food or of phytochemicals of economic importance. A list of these plants are given at the end of this paper.

FOOD PLANTS

The number of indigenous plants that could be used in various ways as sources of food is about 200. Over half of them are used as vegetables or pot-herbs. The parts used range from roots and tender shoots to flowers and young fruits. They are mostly collected from wild or semi-wild plants. A very few are cultivated on a small scale. Among these are *Alternanthera sessilis* (Mukunuwenna), *Basella rubra* (Niviti), *Centella asiatica* (Gotukola), *Ipomoea aquatica* (Kan-kun), and *Lasia spinosa* (Kohila). Some of these local vegetables are said to be good sources of nitrogen, minerals and vitamins. According to Pirie (1971), leaves of *Ipomoea aquatica* have 4.6 to 5.8 per cent nitrogen in the dry matter and the annual yield could be as high as 80,000 kg/ha.

Very few of the local legumes are edible and even these are of little importance except as gene reservoirs for breeding purposes. Over 80 species produce fruits or seeds that could be eaten in the fresh condition or after roasting. A few of them, e.g. *Feronia limonia* (Divul), *Flacourtia indica* (Uguressa), *Elaeocarpus serratus* (Veralu), *Carissa carandas* (Karanda), *Zizyphus mauritiana* (Maha-debara), and *Aberia gardneri* (Ketambilla, Ceylon Gooseberry) are sometimes cultivated in home gardens. In most species, however, the fruits are collected from wild or semi-wild plants. Some of the fruits are suitable for preparation of fruit-drinks, jams and jellies. It is also said that good quality wines could be produced from some of them.

The starch-producing plants number about 30. They are mainly grasses, palms, aroids and *Dioscorea* yams. Flour could also be extracted from some of the larger seeds like those of *Cycas* and *Vateria copalifera* (Hal). Our starch-producing plants are of relatively little importance. Tubers of many wild aroids, some of which are plentiful along waterways, are never used locally because of the irritant action of the raphides present in them. If satisfactory methods to remove them are devised it should be possible to use these tubers at least as animal feed.

The local sugar producing plants are *Madhuca longifolia* (Mi) and certain palms. *Madhuca* flowers are said to contain 50 to 70 per cent of their dry weight as sugars. These do not seem to be used now in Sri Lanka, but in India many thousands of tons are used annually in the fermentation industry. Locally sugar is extracted from *Borassus flabellifer* (Palmyrah), *Caryota urens* (Kitul), and *Cocos nucifera* (Coconut). A few years ago some attempts were made to tap *Nypa fruticans* (Gin-pol) in Sri Lanka. *Nypa* is considered to be one of the cheapest sources of sugar — one acre producing up to 1-1/2 tons sugar without any cultivation (MacMillan, 1943).

Non-drying oils could be obtained from over 20 local species but very few of them are suitable for use as food. Oil from coconut and from *Sesamum* (Gingelly) are the only ones now used as food in the country. *Madhuca* (Mi) oil was used in the past. This is still an important item of food in India.

Before the introduction of tea to the island, infusions of the dried flowers of *Cassia auriculata* (Ranawara), and *Aegle marmelos* (Beli) were much used as beverages and are still used to some extent. According to Brown (1950), infusions of the leaves of *Streblus asper* (Moraceae) and those of *Carronia microphylla* (Boraginaceae) are used as tea in some countries. Sap from palm inflorescences, either fresh or after fermentation, is also much used as a beverage.

SPICES and FLAVOURINGS

Sri Lanka has been well known for its spices from time immemorial and a considerable number of local plants are used as spices. The most important of these are cardamom and cinnamon. In addition to these and the other better known ones, leaves of *Premna serratifolia*, *P. latifolia*, and *P. procumbens* (Verbenaceae) are sometimes used as flavourings.

MASTICATORIES

The most widely used masticatories, *Piper betle* (Betel) and *Areca catechu* (Arecanut) are both very early introductions to the island. Among others used locally are the seeds of the endemic palms, *Areca concinna* (Lenateri) and *Loxococcus repicola* (Dotalu) and the seeds of the Zingiberaceous plant *Amomum masticatorium* which is also endemic to Sri Lanka. In some parts of the island, *Callicarpa tomentosa* is said to be used for chewing.

MEDICINAL PLANTS

Nearly 700 indigenous plant species are used in medicine either here or in some of our neighbouring countries. Out of our native plants which are common to Sri Lanka and India, about 30 per cent are considered to be of medicinal use. As against this, only about 3 or 4 per cent of the endemics are so considered. We still seem to be using the same plants as in India with only a very few additions from the local flora even though the ayurvedic system of medicine has been used here for well over 2000 years.

Some of our local drug plants are reputed to have bactericidal properties. In studies carried out in India, many of these have been found to be ineffective or only partially effective but *Glycosmis pentaphylla* (Rutaceae), *Hiptage benghalensis* (Malphigiaceae), and *Phyla (Lippia) nodiflora* (Verbenaceae) are reported to have inhibited completely the growth of nine different types of bacteria for which tests were carried out.

POISONS, INSECTICIDES and INSECT REPELLANTS

About 47 species are recorded as being poisonous; nearly 30 species are used as fish poisons and 19 are reputed to be active as insecticides or insect repellants.

NETTLES and SKIN IRRITANTS

Of the plants listed under this group those belonging to the Urticaceae and *Tragia involucreta* (Euphorbiaceae) are true nettles with stinging hairs. One of them, *Laportea crenulata* (Maussa, devil nettle or fever nettle) stings severely producing distressing effects which may last for several days. The ripe fruits of *Caryota urens* (Kitul) and the tissues of certain aroids, if rubbed against the skin, cause irritations due to the presence of raphides in them.

ESSENTIAL OILS and PERFUMES

The species producing essential oils and perfumes number about 30, but of them only *Cymbopogon* spp.

(Citronellas and Lemon grass), *Cinnamomum zeylanicum* (Cinnamon), and *Elettaria* (Cardamoms) are cultivated for commercial purposes. Many of the plants producing essential oils are the same as those used as spices.

DYES and TANNINS

Before the synthetic dyes became freely available, vegetable dyes were much in use in the country. Some of these were considered to be "softer" and more permanent than the synthetics, but this industry died down as it could not compete with the cheaper imports. With the present expansion of various industries, local vegetable dyes should have a ready market if a regular supply of quality products could be made available. Tannin extraction still continues but with the deforestation that is now going on the numbers of the tannin producing trees are rapidly dwindling.

GUMS, RESINS, etc.

Good grade gums, resins etc., are produced by many of our local trees especially the Dipterocarps. *Donna zeylanica* (Dun), for example, produces a good grade gum resin; *Shorea oblongifolia* (Dumala) gives a clear resin suitable for varnish; and *Vateria copallifera* (Hal) gives a clear yellowish resin said to be equal to the best dammars. All three of these are endemic to the island.

GENERAL OBSERVATIONS

Out of the several hundred indigenous plants listed, coconut is the only major crop plant and this is now grown over an area of about a million acres. Cinnamon, citronella and cardamom are minor export crops and they cover about 36,000 acres, 15,000 acres, and 9,500 acres respectively. None of the others are grown on any large scale. A few of the food plants and some of the medicinal plants are grown in small plots or in home gardens. Attempts are now being made to grow certain medicinal plants on a larger scale. From the vast majority of the species listed however the various products are collected from wild or semi-wild plants growing on waste ground or in forests, and with the progressive clearing up of the forests these plants are becoming less and less available for exploitation.

Except for the research on coconut and, perhaps, also on citronella, little or no work has been done on the selection and the improvement of any of the indigenous economic plants. In fact as far as some of them are concerned, selection may be working against improvement due to the fact that plants or parts of plants with any desirable characteristics are often uprooted or removed for use by man leaving only those with the less desirable characteristics to mature and reproduce.

Cultivation and selection would undoubtedly improve many of our economic plants. In some of them various strains are recognised and some are regarded as superior to others. In these selection for quality

and high yields is desirable. In cinnamon, for example, such selection and vegetative propagation of clonal material could ensure uniform and high quality products.

Untapped phytochemical products may still remain hidden in some of our local species, especially the endemic ones. A full and comprehensive survey of these is urgently needed but at the rate exploitation of forests and deforestation is now going on, many endemics may become extinct long before any such survey is complete. Early action should therefore be taken to protect and even cultivate any endangered species and to preserve representative samples of vegetation types as Strict Natural Reserves so as to protect the flora for studies and use even at a later date.

LIST OF VASCULAR PLANTS OF SRI LANKA WHICH ARE OF ECONOMIC IMPORTANCE AS FOOD, DRUGS, ETC.

This list has been prepared after a preliminary survey of the literature on the useful plants of Sri Lanka and some of the neighbouring countries. A full list of the literature consulted is given at the end. Only plants indigenous to the island and those considered to have been introduced to Sri Lanka at a very early date are given in this list. The names of those introduced are underlined. Names of plants brought here during the last few centuries from the New World and elsewhere have not been included. Further only plants used as food, drugs, etc. or as sources of useful chemical products are listed. Those providing timber, fibres, etc. are not included.

The plant names are arranged under families in the same order as in the author's Check List of the Flowering Plants of Ceylon (Abeywickrama 1959). References to descriptions of the plants may be obtained from this work. Against each name the nature of the use or the product is indicated by a figure. These figures are arranged in two columns. Those under column A refer to uses as food, etc. and those under column B to drugs, etc. as follows:—

Column A

- 1 Starch
- 2 Sugar
- 3 Non-drying oils
- 4 Vegetables and Pot herbs
- 5 Legumes

6 Edible fruits and seeds

- 7 Beverages
- 8 Spices and flavourings
- 9 Masticatories

For example,

Areca catechu L.

and *Cinnamomum zeylanicum* Bl.

Column B

- 1 Medicinal drugs
- 2 Poisons
- 3 Fish poisons
- 4 Nettles and skin irritants
- 5 Pesticides and Insect repellants
- 6 Perfumes and essential oils
- 7 Dyes and tannins
- 8 Gums and mucilages
- 9 Cements and Resins

A	B
9	17
8	16

mean that the first named plant is an introduced one, the name is underlined, and that it provides a masticatory (A), medicinal drug (B) and also a dye or tannin (B7),

and that the second is an indigenous plant used as a spice or flavouring (A8), and provides a medicinal drug (B) and an essential oil (B6).

I wish to record here my sincere thanks to Professor R.N. de Fonseka and to Miss L. H. Chang for assistance in checking references.

Pteridophytes

	A	B
Lycopodiaceae		
<i>Lycopodium phlegmaria</i> L.		1
Pteridaceae		
<i>Acrostichum aureum</i> L.	4	1
Parkeriaceae		
<i>Ceratioteris thalictroides</i> (L) Brongn	4	1
Aspidiaceae		
<i>Diplazium esculentum</i> (Retz.) Sw.	4	1
Polypodiaceae		
<i>Drynaria quercifolia</i> (L.) J.Sm.	4	1
Gymnosperms		
Cycadaceae		
<i>Cycas circinalis</i> L.	146	12

Monocotyledons

Typhaceae		
<i>Typha angustifolia</i> L.	1	
Pandanaceae		
<i>Pandanus tectorius</i> Soland. ex Park.	6	16
Aponogetonaceae		
<i>Aponogeton natans</i> (L.) Engl. & Krause	14	
<i>A. crispus</i> Thumb.	14	
Hydrocharitaceae		
<i>Enhalus acoroides</i> (L.f.) Rich. ex Steud.	6	
<i>Ottelia alismoides</i> (L.) Pers.	46	1
Gramineae		
<i>Lophatherum gracile</i> Brongn.		1
<i>Phalaris arundinacea</i> L.		2
<i>Eleusine indica</i> (L.) Gaertn.		12
<u><i>E. coracana</i></u> (L.) Gaertn.	1	1
<i>Dactyloctenium aegyptium</i> (L.) Beauv.		12
<i>Cynodon dactylon</i> (L.) Pers.		12
<u><i>Oryza sativa</i></u> L.	1	1
<i>Hygroryza aristata</i> (Retz.) Nees	1	1
<i>Panicum repens</i> L.		1
<u><i>P. miliaceum</i></u> L.		1
<i>P. psilopodium</i> Trin.	1	1
<u><i>P. miliare</i></u> Lam.		1
<i>P. antidotale</i> Retz.	1	1
<i>Echinochloa colonum</i> (L.) Link	14	12
<i>E. frumentacea</i> Link	1	12
<i>E. crus-galli</i> (L.) Beauv.	14	1
<i>E. sragina</i> (Retz.) Beauv.		1
<u><i>Paspalum scrobiculatum</i></u> L.	1	12
<i>Setaria plicata</i> (Lam.) Cooke		1
<i>S. italica</i> (L.) Beauv.	1	1
<i>Pennisetum glaucum</i> (L.) R.Br.	1	1
<i>Imperata cylindrica</i> var. <i>major</i> (Nees)		1
C. E. Hubb		
<i>Saccharum spontaneum</i> L.		1
<u><i>S. officinarum</i></u> L.	2	1
<i>Hackelochloa granularis</i> (L.) Kuntze		1
<i>Sorghum halepense</i> (L.) Pers.		12
<u><i>S. bicolor</i></u> (L.) Moanch.	1	
<i>Vetiveria zizanioides</i> (L.) Nash		16
<i>Chrysopogon aciculatus</i> (Retz.) Trin.		1

<i>Cymbopogon winteranus</i> Jowitt		1 6	<i>C. axillaris</i> (L.) J.A. & J.H. Schult.		1
<i>C. nardus</i> (L.) Rendle		1 6	<i>Murdannia spirata</i> (L.) Brueckn.	4	
<i>C. citratus</i> (DC) Stapf	8	1 6	<i>M. nudiflora</i> (L.) Brenan	4	1
<i>Themeda triandra</i> Forsk.		1 2	<i>Floscopa scandens</i> Lour.		1
<i>Heteropogon contortus</i> (L.) Beauv.		1	<i>Commelina benghalensis</i> L.	4	1
<i>Chionachne koenigii</i> (Spreng.) Thw.		1	<i>C. clavata</i> C.B. Clarke	4	
<i>Coix gigantea</i> Koen.	1		Pontederaceae		
<i>C. Lachryma-jobi</i> L.	1	1	<i>Monochoria hastata</i> (L.) Solms	4	1
<i>Bambusa bambos</i> (L.) Druce	4 6	1	<i>M. vaginalis</i> (Purm.f.) Kunth	4	1
<i>B. vulgaris</i> Schrad.	4	1	Liliaceae		
Cyperaceae			<i>Gloriosa superba</i> L.		1 2
<i>Cyperus iria</i> L.		1	<i>Aloe barbadensis</i> Mill.		1 8
<i>C. diffusus</i> Vahl		4	<i>Sansevieria zeylanica</i> (L.) Willd.		1
<i>C. rotundus</i> L.		1 5 6	<i>Asparagus recemosus</i> Willd.		1
<i>C. stoloniferus</i> Retz.		1	<i>A. falcatus</i> L.	4	
<i>C. platyphyllus</i> Roem. & Schult.		1	<i>A. gonocladus</i> Paker		1
<i>C. triceps</i> (Rottb.) Endl.		1	Smilacaceae		
<i>C. brevifolius</i> (Rottb.) Endl.		1	<i>Smilax aspara</i> L.		1
<i>Scirpus articulatus</i> L.		1	Amaryllidaceae		
<i>S. grossus</i> L. f.		1	<i>Allium cepa</i> L.	4 8	1
<i>Remirea maritima</i> Aubl.		1	<i>Crinum asiaticum</i> L.		1
<i>Scleria pergracilis</i> (Nees) Kunth		5	<i>C. defixum</i> Ker-Cawl.		1
Palmae			<i>C. latifolium</i> L.		1
<i>Areca catechu</i> L.	9	1 7	<i>C. zeylanicum</i> L.		1
<i>A. concinna</i> Thw.	9	1	Hypoxidaceae		
<i>Loxococcus rupicola</i> (Thw.) Wendl. & Drude	9		<i>Curculigo orchioides</i> Gaertn.		1
<i>Caryota urens</i> L.	1 2 7	1 4	Dioscoreaceae		
<i>Nypa fruticans</i> Wurmb.	2 6 7		<i>Dioscorea esculenta</i> (Lour.) Burkill	1	1
<i>Phoenix zeylanica</i> Trin.	6		<i>D. pentaphylla</i> L.	1 4	1
<i>P. pusilla</i> Gaertn.	1	1	<i>D. bulbifera</i> L.	1 4	1 2
<i>Corypha umbraculifera</i> L.	1	3	<i>D. oppositifolia</i> L.	1	1
<i>Calamus rotang</i> L.		1	<i>D. alata</i> L.	1 4	1
<i>Borassus flabellifer</i> L.	1 2 6 7	1	Musaceae		
<i>Cocos nucifera</i> L.	2 3 6 7	1 6	<i>Musa acuminata</i> Colla	4 6	1
Araceae			<i>M. balbisiana</i> Colla	4 6	1
<i>Pothos scandens</i> L.	6	1	<i>M. x paradisiaca</i> L. cvs	4 6	1
<i>Acorus calamus</i> L.	8	1 5 6 7	Zingiberaceae		
<i>Rhaphidophora laciniata</i> (Burm.f.) Merr		1	<i>Kaempferia rotunda</i> L.		1
<i>Lasia spinosa</i> (L.) Thw.	4	1	<i>K. galanga</i> L.	8 9	1
<i>Amorphophallus campanulatus</i> (Roxb.) Bl.	1 4	1	<i>Boesenbergia pandurata</i> (Roxb.) Schlecht		1
<i>A. sylvaticus</i> (Roxb.) Schott Kunth.		1	<i>Curcuma aromatica</i> Salisb.		1 6
<i>Remusatia vivipara</i> (Roxb.) Schott		1	<i>C. zedoaria</i> (Berg.) Roscoe	1 8	1 6 7
<i>Colocasia esculenta</i> (L.) Schott	1 4	1	<i>C. domestica</i> Valetton	8	1 5 7
<i>Alocasia cucullata</i> (Lour.) Schott	1		<i>Z. zerumbet</i> (L.) Sm.		1
<i>A. macrorrhiza</i> (L.) Schott	1	1 4	<i>Z. officinale</i> Roscoe	1 8	1 6
<i>A. indica</i> (Roxb.) Schott	1	1	<i>Amomum masticatorium</i> Thw.	9	
<i>Typhonium trilobatum</i> (L.) Schott		1	<i>Elettaria repens</i> (Sonner.) Baill.	8 9	1 6
<i>Arisaema leschenaultii</i> Bl.		1	<i>E. ensal</i> (Gaertn.) Abeywick.	8 9	1 6
<i>Lagenandra lancifolia</i> (Schott) Thw.		1	<i>Langas chinensis</i> Koen.		1
<i>L. ovata</i> (L.) Thw.		1 2	<i>L. galanga</i> (L.) Stuntz		1 7
<i>Cryptocoryne spiralis</i> (Retz.) Fischer		1	<i>Costus speciosus</i> (Koen.) Sm.	1 4	1
<i>Pistia stratiotes</i> L.		1 4	Cannaceae		
Flagellariaceae			<i>Canna indica</i> L.	1	1 7
<i>Flagellaria indica</i> L.		1	Orchidaceae		
Xyridaceae			<i>Dendrobium macraei</i> Lindl.		1
<i>Xyris indica</i> L.		1	<i>D. crumenatum</i> Sw.		1
Eriocaulaceae			<i>Eulophia epidendreae</i> (Retz.) C.E.C. Fischer		1
<i>Eriocaulon sexangulare</i> L.		1	<i>E. nuda</i> Lindl.		1
Commelinaceae			<i>Cymbidium aloifolium</i> (L.) Sw.		1
<i>Cyanotis tuberosa</i> Schultes f.		1	<i>Rhynchostylis retusa</i> (L.) Bl.		1
			<i>Luisia tenuifolia</i> (L.) Bl.		1
			<i>Vanda tessellata</i> (Roxb.) Lod.		1
			<i>V. spathulata</i> (L.) Spreng.		1
			<i>Acampe praemorsa</i> Blatter & McCann		1
			<i>Anoectochilus regalis</i> Bl.		1
			<i>Zeuxine strateumatica</i> (L.) Schlecht.		1

Dicotyledons

Piperaceae			
<i>Piper longum</i> L.		1	
<i>P. betle</i> L.		1	
<i>P. thwaitesii</i> C.DC.	9		
<i>P. nigrum</i> L.	8		
<i>P. umbellatum</i> L.	8	1	
Chloranthaceae			
<i>Chloranthus glaber</i> (Thunb.) Makino		1	
Jlmaceae			
<i>Holoptelea integrifolia</i> (Roxb.) Planch.		1	
<i>Celtis cinnamomea</i> Lindl.		1	
<i>Trema orientale</i> (L.) Bl.		1	7
Moraceae			
<i>Streblus asper</i> (Retz.) Lour.	7	1	
<i>Artocarpus nobilis</i> Thw.	16	7	
<i>A. lakoocha</i> Roxb.	6	17	
<i>A. heterophyllus</i> Lam.	16	17	
<i>Antiaris toxicaria</i> (Pers.) Leschen.		12	
<i>Ficus parasitica</i> Koen.		1	
<i>F. benghalensis</i> L.		1	
<i>F. mysorensis</i> Heyme ex Roth		1	
<i>F. altissima</i> Var. <i>fergusonii</i> King		1	
<i>F. trimenii</i> King		1	
<i>F. nervosa</i> Heyne ex Roth		1	
<i>F. arnottiana</i> (Miq.) Miq.		1	
<i>F. religiosa</i> L.		1	
<i>F. tsjakela</i> Burm. f.		1	
<i>F. tsiela</i> Roxb.		1	
<i>F. virens</i> Ait.		1	
<i>F. callosa</i> Willd.		1	
<i>F. heterophylla</i> L. f.		1	
<i>F. asperrima</i> Roxb.		1	
<i>F. hispida</i> L.f.		1	
<i>F. racemosa</i> L.	6	1	
Urticaceae			
<i>Laportea terminalis</i> Wight		4	
<i>L. crenulata</i> (Roxb.) Gaudich. ex Wedd.		12	4
<i>Fleurya interrupta</i> (L.) Wight		14	
<i>Girardinia zeylanica</i> Decne.		14	
<i>Pouzolzia zeylanica</i> (L.) Benn.		1	
Olacaceae			
<i>Ximenia americana</i> L.	6	1	
<i>Olax scandens</i> Roxb.		1	
<i>O. zeylanica</i> L.	4	1	
Opiliaceae			
<i>Cansjera rheedii</i> Gemlin		2	
Loranthaceae			
<i>Dendrophthoe falcata</i> (L.f.) Danser		1	
<i>Viscum orientale</i> Willd.		1	
<i>V. monoicum</i> Roxb.		12	
Aristolochiaceae			
<i>Apama siliquosa</i> Lam.		13	
<i>Aristolochia bracteolata</i> Lam.		1	
<i>A. indica</i> L.		1	
Polygonaceae			
<i>Polygonum glabrum</i> Willd.		1	
<i>P. barbatum</i> L.		1	
<i>P. chinense</i> L.		1	
<i>P. plebejum</i> R. Br.		1	
Chenopodiaceae			
<i>Atriplex repens</i> Roth		4	
<i>Arthrocnemum indicum</i> (Willd.) Moq.		1	
<i>Salicornia brachiata</i> Roxb.		1	
<i>Suaeda monoica</i> Forsk. ex J.F. Gmel.		1	
Amaranthaceae			
<i>Celosia argentea</i> L.		4	1
<i>Allmania nodiflora</i> (L.) R.Br.		4	
<i>Amaranthus spinosus</i> L.		4	1
<i>A. tricolor</i> L.		4	1
<i>A. viridis</i> L.		4	1
<i>Digera muricata</i> (L.) Mart.		4	1
<i>Cyathula prostrata</i> (L.) Bl.		4	1
<i>Aerva lanata</i> (L.) Juss.		4	1
<i>Achyranthes aspera</i> L.		4	1
<i>A. bidentata</i> Bl.		4	1
<i>Alternanthera sessilis</i> (L.) R.Br.		4	1
Nyctaginaceae			
<i>Boerhaavia diffusa</i> L.		4	1
<i>Pisonia aculeata</i> L.		4	1
<i>P. grandis</i> R. Br.		4	1
Aizoaceae			
<i>Cisekia pharnacioides</i> L.		4	1
<i>Clinus lotoides</i> L.		4	1
<i>G. oppositifolius</i> (L.) A.DC.		4	1
<i>Mollugo pentaphylla</i> L.		4	1
<i>M. cerviana</i> (L.) Ser.		4	1
<i>M. nudicaulis</i> Lam.		4	1
<i>Sesuvium portulacastrum</i> (L.) L.		4	1
<i>Trianthema portulacastrum</i> L.		4	1
<i>T. triquetra</i> Rottl.		4	1
<i>T. decandra</i> L.		4	1
Portulacaceae			
<i>Portulaca cleracea</i> L.		4	1
<i>P. quadrifida</i> L.		4	1
<i>P. tuberosa</i> Roxb.		4	1
Basellaceae			
<i>Basella alba</i> L.		4	17
Caryophyllaceae			
<i>Polycarpha corymbosa</i> (L.) Lam.		1	
Nymphaeaceae			
<i>Nelumbo nucifera</i> Gaertn.		146	1
<i>Nymphaea lotus</i> L.		146	1
<i>N. stellaya</i> Willd.		146	1
Ceratophyllaceae			
<i>Ceratophyllum demersum</i> L.		1	
Ranunculaceae			
<i>Clematis smilacifolia</i> Wall.		1	
<i>C. gouriana</i> Roxb.		12	
Berberidaceae			
<i>Berberis tinctoria</i> Leschen.		17	
<i>B. wightiana</i> Schneider		17	
<i>B. ceylanica</i> Schneider		17	
Menispermaceae			
<i>Tiliacora acuminata</i> (Lam.) Miers		1	
<i>Anamirta cocculus</i> (L.) Wight & Annr.		123	
<i>Coscinium fenestratum</i> (Gaertn.) Colebr.		17	
<i>Tinospora malabarica</i> (Lam.) Miers		1	
<i>T. glabra</i> (Burm. f.) Merr.		1	
<i>T. cordifolia</i> (Willd.) Miers		1	
<i>Hyserpa nitida</i> Miers		1	
<i>Diploclisia glaucescens</i> (Bl.) Diels		1	
<i>Cocculus hirsutus</i> (L.) Diels		1	
<i>Pachygone ovata</i> (Poir.) Miers		3	

Stephania japonica (Thunb.) Miers		1	T. villosa (L.) Pers.		1
Cissampelos pareira L.		1	Sesbania sesban (L.) Merr.		1 8
Cyclea burmanni (DC) Miers		1	S. grandiflora (L.) Pers.	4	
Magnoliaceae			Zornia diphylla (L.) Pers.		1
Michella champaca L.		1 6 7	Smithia sensitiva Ait.		1
Annonaceae			S. conferta Sm.		1
Uvaria narum (Dunal.) Wall.		1	Pseudarthria viscida (L.) Wight & Arn.		1
Polyalthia longifolia (Sonner.) Thw.		1	Uraria picta (Jacq.) DC.		1
Lauraceae			Alysicarpus vaginalis (L.) DC.		1
Cinnamomum zeylanicum Bl.	8	1 6	A. longifolius (Rott.) Wright & Arn.		1
C. iners Reinw.	8	1	Desmodium pulchellum (L.) Benth.		1
Machilus macrantha Nees		1	D. triquetrum (L.) DC.		1
Neolitsea cassia (L.) Kosterm.		8	D. heterocarpum (L.) DC.		7
Litsea glutinosa (Lour.) C.B.Rob		1 8	D. triflorum (L.) DC.		1
Cryptocarya wightiana Thw.		1	D. heterophyllum (Willd.) DC.		1
Cassytha filiformis L.		1 5	D. gyroides DC.		1 2
Hernandiaceae			Abrus precatorius L.		
Hernandia ovigera L.		1	Glycine javanica L.	5	
Capparidaceae			Teramnus labialis (L.f.) Spreng.		1
Crataeva religiosa Forst. P.		1	Mucuna monosperma DC.		1
Capparis zeylanica L.	6	1	M. gigantea (Willd.) DC.		1 2
C. horrida L.P.	6	1	M. prurita Hook.		1
Cadaba trifoliata (Roxb.) Wight & Arn.		1	Erythrina variegata L.	4	1 7
Maerua arenaria (DC) Hook.f. & Thomas.		1	Butea monosperma Taub.		1 5 7 8
Cleome monophylla L.		1			
C. chelidonii L. f.		1	Canavalia gladiata (Jacq.) DC.	5	
C. viscosa L.		1	Phaseolus adenanthus C.F.W.Mey.		1
Gynandropsis gynandra (L.) Briq.	4	1	P. trilobus L.	5	1
Cruciferae			P. aconitifolius Jacq.	5	1
Brassica junacea (L.) Coss	3 8	1	P. aureus Roxb.	5	1
Moringaceae			P. mungo L.	4 5	1
Moringa oleifera Lam.	3 4 8	1	P. radiatus L.		1
Nepenthaceae			P. calcaratus Roxb.	4 5	
Nepenthes distillatoria L.		1	Clitoria ternatea L.	4	1 7
Droseraceae			Lablab niger Medic.	5	1 2
Drosera burmanni Vahl		1	Dolichos biflorus L.		1
D. indica L.		1	D. uniflorus Lam.	5	
D. peltata J. E. Sm.		1	D. falcatus Klein.		1
Crassulaceae			Rhynchosia minima (L.) DC.		1
Kalanchoe laciniata (L.) Pers.		1	Moghania strobilifera (L.) J.St.Hil.		1
Rosaceae			M. macrophylla (Willd.) Kuntze		1
Rubus ellipticus Sm.	6		Dalbergia lanceolaria L.f.		1
R. niveus Thunb.	6		Pterocarpus marsupium Roxb.		1 8
Connaraceae			Pongamia pinnata (L.) Pierre	3	1 3 5
Connarus moncarpos L.		1	Derris scandens (Roxb.) Benth.		3
Leguminosae			D. uliginosa (Willd.) Benth.		1 3
Crotalaria prostrata Rottl. ex Willd.		1	D. benthamii (Thw.) Thw.		3
C. albida Heyne ex Roth		1	Sophora tomentosa L.		1 2
C. retusa L.		1	Caesalpinia bonduc (L.) Roxb.		1
C. verrucosa L.		1	C. crista L.		1
C. juncea L.		1 2	C. digyna Rottl.		1
C. medicaginea Lam		1	C. sappan L.		1 7
C. mucronata Desv.		2	Cassia fistula L.		1 7
C. laburnifolia L.		1	C. occidentalis L.	4	1
Indigofera linifolia (L.f.) Retz.		1	C. sophera L.		1
I. enneaphylla L.		1	C. tora L.	4	1 7
I. aspalathoides Vahl		1	C. auriculata L.	7	1 7
I. glabra L.		1	C. italica (Mill.) Lam.		1
I. trita L. f.		1	C. siamea Lam.		2
I. oblongifolia Forsk.		1	C. absus L.		1
I. tinctoria L.		1 7	C. mimosoides L.		1
I. galeoides DC.		2	Cynometra ramiflora L.		1
Psoralea corylifolia L.		1	Dialium ovoideum Thw.	6	
Mundules sericea (Willd.) A. Chev.		1 2 3	Saraca indica L.		1
Tephrosia spinosa (L.) Pers.		1	Tamarindus indica L.		1 3 4 6 8 1 7 9
T. purpurea (L.) Pers.		1 3 7	Bauhinia tomentosa L.	4	1

<i>B. racemosa</i> Lam.					
<i>Neptunia oleracea</i> Lour.			1		
<i>Entada phaseoloides</i> (L.) Merr.			1		
<i>Adenanthera pavonina</i> L.			1 2 3		
<i>Dichrostachys cinerea</i> (L.) Wight & Arn.			1 7 8 9		
<i>Acacia nilotica</i> var. <i>adansonii</i> (Guill. & Perr.) Kuntze.			1		
<i>A. leucophloea</i> (Roxb.) Willd.			7 8		
<i>A. ferruginea</i> DC.			1 7 8		
<i>A. concinna</i> (Willd.) DC.			1		
<i>A. pennata</i> (L.) Willd.			1 5 7		
<i>Albizia lebbek</i> (L.) Benth.			1 3 7		
<i>A. odoratissima</i> (L.) Benth.			1 7		
<i>A. chinensis</i> (Osbeck.) Merr.			1		
<i>A. amara</i> (Roxb.) Boiv.			1		
Geraniaceae			1		
<i>Geranium nepalense</i> Sweet			1		
Oxalidaceae			1		
<i>Oxalis corniculata</i> L.			1		
Linaceae	4		1		
<i>Hugonia mystax</i> L.			1		
Erythroxylaceae			1		
<i>Erythroxylum monogynum</i> Roxb.			1		
Zygophyllaceae			1		
<i>Tribulus terrestris</i> L.			1		
utaceae			1		
<i>REuodia lunu-an kenda</i> (Gaertn.) Merr.			1		
<i>Ruta graveolens</i> L.			1		
<i>Chloroxylon swietenia</i> DC.			1		
<i>Toddalia asiatica</i> (L.) Lam.	8		1 2		
<i>Acronychia pedunculata</i> (L.) Miq.	4		1 3		
<i>Glycosmis pentaphylla</i> (Retz.) Corr.			1 8		
<i>Murraya paniculata</i> (L.) Jacq.	8		1 6 8		
<i>M. koenigii</i> (L.) Spreng.	8		1		
<i>Clausena dentata</i> (Willd.) M. Roem.	6		1		
<i>Atalantia monophylla</i> DC.	6		1		
<i>Paramignya monopivlla</i> Wight.	6		1		
<i>Citrus aurantifolia</i> (Christ.) Swingle	6 8		1		
<i>C. sinensis</i> (L.) Osbeck.	6		1		
<i>C. reticulata</i> Blanco	6		1		
<i>Aegle marmelos</i> (L.) Corr.	6		1		
<i>Feronia limonia</i> (L.) Swingle	6	16 78 9			
Simaroubaceae	6	1 8			
<i>Samadera indica</i> Gaertn			1		
Burseraceae			1		
<i>Canarium zeylanicum</i> (Retz.) Pl.	6	3 8			
Meliaceae					
<i>Chukrassia tabularis</i> A. Juss.			1 7		
<i>Xylocarpus grantum</i> Koen.			1		
<i>X. moluccensis</i> (Lam.) M. Roem.			1		
<i>Melia dubia</i> Cav.			1		
<i>Azadiracta indica</i> A. Juss.	3		1 5 6		
<i>Walsura piscidia</i> Roxb.	6		1 3		
<i>Amoora rohituka</i> (Roxb.) Wight & Arn.	3		1		
<i>Aglaia roxburghiana</i> (Wight & Arn.) Miq.	6		1		
Malpighiaceae			1		
<i>Hiptage benghalensis</i> (L.) Kurz			1 5		
Polygalaceae			1		
<i>Polygala chinensis</i> L.			1		
<i>P. sibirica</i> var. <i>macrolophos</i> (Hassk.) Benn.			1		
<i>P. telephoides</i> Willd.			1		
Euphorbiaceae			1		
<i>Aporosa cardiosperma</i> (Gaertn.) Merr.	6				
<i>A. lindleyana</i> (Wight) Baill.	4 6				
<i>A. lanceolata</i> (Thw.) Thw.	6				
<i>Antidesma ghassembilla</i> Gaertn.	4 6				
<i>A. alexiteria</i> L.					1
<i>A. bunius</i> (L.) Spreng.				4 6	1 2
<i>Glouchidion zeylanicum</i> (Gaertn.) A. Juss.					1
<i>Putranjiva roxburghii</i> Wall.					1
<i>Securinega leucopyros</i> (Willd.) Muell. Arg.					1 3
<i>Phyllanthus reticulatus</i> Poir.					1 7 8
<i>P. emblica</i> L.				6	1
<i>P. urinaria</i> L.					1
<i>P. maderaspatensis</i> L.					1
<i>P. debilis</i> Klein ex Willd.					1
<i>Drypetes sepiaria</i> (Wight & Arn.) Pax & Hoffm.				6	1
<i>Cleistanthus collins</i> (Roxb.) Hook. f.					1 2 3
<i>Bridelia retusa</i> (L.) Spreng.					1
<i>Croton oblongifolius</i> Roxb.					1
<i>C. aromaticus</i> L.					1 9
<i>Chrozophora rottleri</i> (Geisel.) A. Juss.				3	1 2
<i>Aleurites moluceana</i> (L.) Willd.					1 6 7
<i>Trewia nudiflora</i> L.					1
<i>Mallofus philippensis</i> (Lam.) Muell. Arg.					1 7
<i>Macaranga indica</i> Wight					1 8
<i>M. peltata</i> (Roxb.) Muell. Arg.					1 8
<i>Acalypha fruticosa</i> Forsk.					1
<i>A. indica</i> L.				4	1
<i>Tragia involucrata</i> L.					1 4
<i>Homonia riparia</i> Lour.					1
<i>Ricinus communis</i> L.				3	1
<i>Dalechampia indica</i> Wight					4
<i>Jatropha glandulifera</i> Roxb.					1 7
<i>J. curcas</i> L.					1 3
<i>Sebastiania charaeifera</i> (L.) Muell. Arg.					1
<i>Excoecaria agallocha</i> L.					1 2 7
<i>Sapium indicum</i> Willd.					2 3
<i>S. insigne</i> (Royle) Trim.					1
<i>Euphorbia antiquorum</i> L.					1
<i>E. tirucalli</i> L.					1 2 7
<i>E. atoto</i> Forest. f.					1
<i>E. rosea</i> Retz.					1
<i>E. hirta</i> L.					1
<i>E. thymifolia</i> L.					1
<i>E. rothiana</i> Spreng.					1
Anacardiaceae					
<i>Mangifera zeylanica</i> (Bl.) Hook. f.	6				1 6 7
<i>M. indica</i> L.	6				7 8
<i>Lannea coromandelica</i> (Houtt.) Merr.	6				
<i>Semecarpus marginata</i> Thw.					9
<i>S. gardneri</i> Thw.					1
<i>Spondias pinnata</i> (L.) Kurz	6				
Celastraceae					
<i>Cekastrus paniculatus</i> Willd.					1
<i>Kurrimia ceylanica</i> Arn.	6				
<i>Kokoona zeylanica</i> Thw.					1
<i>Elaeodendron glaucum</i> (Rottb.) Pers.					1 7
Hippocrateaceae					
<i>Hippocratea indica</i> Willd.					1
<i>Salacia prinoides</i> (Willd.) DC.					1
<i>S. reticulata</i> Wight	6				1
<i>S. oblonga</i> Wall.					1
Salvadoraceae					
<i>Azima tetracantha</i> Lam.					1
<i>Salvadora persica</i> L.					1
Sapindaceae					
<i>Cardiospermum halicacabum</i> L.					1
<i>Allophylus cobbe</i> (L.) Bl.	6				1
<i>Sapiindus trifoliatum</i> L.					1 3

<i>S. emarginatus</i> Vahl	3		<i>Pentapetes phoenicea</i> L.	1
<i>Schleichera cleosa</i> (Lour.) Oken.	3	6	<i>Melochiz corchorifolia</i> L.	1
<i>Euphoria longana</i> Lam.	6	1	<i>Waltheria indica</i> L.	1
<i>Dodonaea viscosa</i> Jacq.		1	Dilleniaceae	
<i>Harpullia arborea</i> Blanco. Radlk.		1	<i>Dillenia indica</i> L.	6
Balsaminaceae			Ochnaceae	
<i>Impatiens balsamina</i> L.		1	<i>Ochna squarrosa</i> L.	1
Rhamnaceae			Theaceae	
<i>Rhamnus wightii</i> Wight & Arn.		1	<i>Ternstroemia japonica</i> (Thunb.) Thunb.	9
<i>Colubrina asiatica</i> (L.) Brongn.		1	Guttiferae	
<i>Zizyphus mauritiana</i> Lam.	6	1	<i>Hypericum japonicum</i> Thunb.	1
<i>Z. oenoplia</i> (L.) Mill.		1	<i>Mesua ferrea</i> L.	6
<i>Z. rugosa</i> Lam.		1	<i>Calophyllum inophyllum</i> L.	3
<i>Ventilago maderaspatana</i> Gaertn.		1	<i>C. tomentosum</i> Wight	3
Vitaceae			<i>Garcinia cambogia</i> (Gaertn.) Desr.	6
<i>Cissus setosa</i> Roxb.		1	<i>G. morella</i> Desr.	3
<i>C. quadrangularis</i> L.		1	<i>G. echinocarpa</i> Thw.	3
<i>C. pallida</i> (Wight & Arn.) Planch.		1	<i>G. spicata</i> (Wight & Arn.) Hook.f.	7
<i>Cayratia trifolia</i> (L.) Domin.		1	Dipterocarpaceae	
<i>C. pedata</i> (Lam.) Juss.		1	<i>Dipterocarpus hispidus</i> Thw.	9
Leeaceae			<i>D. zeylanicus</i> Thw.	9
<i>Leea indica</i> (Burm.f.) Merr.		1	<i>D. glandulosus</i> Thw.	6
Elaeocarpaceae			<i>Doona zeylanica</i> Thw.	6
<i>Elaeocarpus serratus</i> L.	6	1	<i>D. trapezifolia</i> Thw.	1
Tiliaceae			<i>D. cordifolia</i> Thw.	6
<i>Grewia asiatica</i> L.	6	1	<i>D. ovalifolia</i> Thw.	9
<i>G. tiliifolia</i> Vahl	6	1	<i>D. macrophylla</i> Thw.	9
<i>G. hirsuta</i> Vahl		1	<i>Vatica obscura</i> Trim.	9
<i>G. microcos</i> L.	6	1	<i>Vateria copallifera</i> (Retz.) Alst.	1
<i>G. tenax</i> (Forsk.) Fiori	6	1	<i>Shorea oblongifolia</i> Thw.	9
<i>Triumfetta rhomboidea</i> Jacq.		1	Tamaricaceae	
<i>Corchorus capsularis</i> L.		1	<i>Tamarix gallica</i> L.	1
<i>C. oclitorius</i> L.		4	Cochlospermaceae	
<i>C. fascicularis</i> Lam.		1	<i>Cochlospermum religiosum</i> (L.) Alst.	168
<i>C. aestuans</i> L.		1	<i>Violaosaegens</i> Hall.	
Malvaceae			<i>Hybanthus enneaspermus</i> (L.) F. Muell.	1
<i>Sida veronicifolia</i> Lam.		1	<i>Viola serpens</i> Wall.	1
<i>S. acuta</i> Burm. f.		1	Flacourtiaceae	
<i>S. rhombifolia</i> L.		1	<i>Hydnocarpus venenata</i> Gaertn.	13
<i>S. cordifolia</i> L.		1	<i>H. octandra</i> Thw.	1
<i>Abutilon asiaticum</i> (L.) G. Don		1	<i>Trichadenia zeylanica</i> Thw.	1
<i>A. indicum</i> (L.) G. Don		1	<i>Flacourtia indica</i> (Burm.f.) Merr.	6
<i>A. hirtum</i> (Lam.) Sweett		1	<i>Dovylis hebecarpa</i> (Gardn.) Warb.	6
<i>Urena lobata</i> L.		1	Passifloraceae	
<i>Pavonia zeylanica</i> Cav.		1	<i>Adenia wightiana</i> (Wall.) Engl.	2
<i>P. odorata</i> Willd.		1	<i>A. palmata</i> (Lam.) Engl.	12
<i>Hibiscus surattensis</i> L.	8	1	Thymelaeaceae	
<i>H. furcatus</i> Willd.		1	<i>Gnidia eriocephala</i> Heisn.	13
<i>H. micranthus</i> L.f.		1	Lythraceae	
<i>H. vitifolius</i> L.		1	<i>Ammania baccifera</i> L.	1
<i>H. abelmoschus</i> L.		1	<i>Woodfordia fruticosa</i> (L.) Kurz	178
<i>H. tiliaceus</i> L.		1	<i>Lawsonia inermis</i> L.	167
<i>H. esculentus</i> L.	4	1	<i>Lagerstroemia speciosa</i> (L.) Pers.	17
<i>H. rosa-sinensis</i> L.		1	Sonneratiaceae	
<i>Thespesia lampas</i> (Cav.) Dalz. & Gibbs.		1	<i>Sonneratia cascolaris</i> (L.) Engl.	6
<i>T. populnea</i> (L.) Soland.		1	Lecythidaceae	
<i>Gossyplum arboreum</i> L.	3	1	<i>Barringtonia asiatica</i> (L.) Kurz	13
Bombacaceae			<i>B. racemosa</i> (L.) Bl.	1
<i>Adansonia digitata</i> L.	4	6	<i>B. ceylanica</i> (Miers) Gardn.	1
<i>Salmalia malabarica</i> (DC.) Schott & Endl.	3	1	<i>B. acutangula</i> (L.) Gaertn.	137
<i>Ceiba pentandra</i> (L.) Gaertn.	3	1	<i>Careya arborea</i> Roxb.	1
Sterculiaceae			Rhizophoraceae	
<i>Sterculia foetida</i> L.	6	1	<i>Rhizophora mucronata</i> Lam.	17
<i>S. urens</i> Roxb.		1	<i>R. apiculata</i> Bl.	7
<i>S. balanghas</i> L.		1	<i>Cerriops tagal</i> (Perr.) C.B. Rob.	17
<i>Helicteres isora</i> L.		1	<i>Bruguiera gymnorhiza</i> (L.) Lam.	7

<i>B. sexangula</i> (Lour.) Poir.		7			
<i>B. cylindrica</i> (L.) Bl.		7			
<i>Carallia brachiata</i> (Lour.) Merr.		1			
Alangiaceae					
<i>Alangium salviifolium</i> (L.f.) Wangerin		1			
Combretaceae					
<i>Terminalia bellirica</i> (Gaertn.) Roxb.	6	17			
<i>T. chebula</i> Retz.		17			
<i>T. arjuna</i> (Roxb.) Wight & Arn.		1			
<i>Anogeissus latifolia</i> (Roxb.) Wall.		178			
<i>Lumnitzera racemosa</i> Willd.		1			
Myrtaceae					
<i>Syzygium aqueum</i> (Burm.f.) Alst.	6				
<i>S. jambos</i> (L.) Alston	6	1			
<i>S. hemisphericum</i> (Wight) Alst.		1			
<i>S. zeylanicum</i> (L.) DC.		1			
<i>S. operculatum</i> (Roxb.) Nied	6	1			
<i>S. cuminia</i> (L.) Skeels	6	17			
<i>S. makul</i> Gaertn.	6				
Melastomataceae					
<i>Osbeckia cupularis</i> D. Don		1			
<i>Melastoma malabathrica</i> L.	4.6	1			
<i>Memecylon grande</i> Retz.	4				
<i>M. umbellatum</i> Burm.f.		17			
<i>M. capitellatum</i> L.		7			
<i>M. angustifolium</i> Wight		1			
Trapaceae					
<i>Trapa bispinosa</i> Roxb.	6	1			
Umbelliferae					
<i>Hydrocotyle javanica</i> Thunb.	4	13			
<i>H. sibthorpicides</i> Lam.	4				
<i>Centella asiatica</i> (L.) Urb.	4	1			
<i>Pimpinella heyneana</i> Wall.		1			
Cornaceae					
<i>Mastizia tetrandra</i> (Wight) C.B. Clarke		9			
Ericaceae					
<i>Gaultheria rudis</i> Stapf		156			
Myrsinaceae					
<i>Aegiceras corniculatum</i> (L.) Blanco		3			
<i>Ardisia humilis</i> Vahl.		1			
<i>Embelia ribes</i> Burm.f.	4	1			
Plumbaginaceae					
<i>Plumbage Zeylanica</i> L.		1			
Sapotaceae					
<i>Chrysophyllum roxburghii</i> G. Don	6				
<i>Madhuca longifolia</i> (L.) J.F. NeBr.	236	1567			
<i>Palaquium grande</i> (Thw.) Engl.	3				
<i>Mimusops elengi</i> L.	36	167			
<i>Manilkara hexandra</i> (Roxb.) Dubard.	6				
Ebenaceae					
<i>Maba buxifolia</i> (Rottb.) Pers.	6				
<i>Diospyros montana</i> Roxb.		123			
<i>D. malabarica</i> (Lam.) Kostel.		1578			
<i>D. atrata</i> (Thw.) Alst.		7			
<i>D. albiflora</i> Alst.		7			
<i>D. ebenum</i> Koen.		13			
<i>D. melanaxylon</i> Roxb.		17			
Symplocaceae					
<i>Symplocos loha</i> Buch-Ham.		17			
Oleaceae					
<i>Jasminum angustifolium</i> (L.) Willd.		1			
<i>J. suriculatum</i> Vahl		1			
<i>J. humile</i> L.		1			
<i>Olea glandulifera</i> Desf.		1			
Loganiaceae					
<i>Strychnos colubrina</i> L.				1	
<i>S. cinnamomifolia</i> Thw.				12	
<i>S. nux-vomica</i> L.				12	
<i>S. potatorum</i> L.f.				1	
Gentianaceae					
<i>Exacum pedunculatum</i> L.				1	
<i>Canscora diffusa</i> (Vahl) R.Br.				1	
<i>Enicostema verticillare</i> (Retz.) Baill.				1	
<i>Nymphoids indicum</i> (L.) Kuntze				1	
Apocynaceae					
<i>Carissa carandas</i> L.	6	17			
<i>C. spinarum</i> L.	6	1			
<i>Rauwolfia serpentina</i> (L.) Benth.		1			
<i>Petchia ceylanica</i> (Wight) Livera		2			
<i>Cerbera manghas</i> L.		123			
<i>Catharanthus pusillus</i> (Murr.) GDon		12			
<i>C. roseus</i> (L.) G. Don		1			
<i>Holarrhena mitis</i> (Vahl) R.Br.		1			
<i>Rejouva dichotoma</i> (Roxb.) Gamble		12			
<i>Ervatamia divaricata</i> (L.) Burkill		1			
<i>Alstonia scholaris</i> (L.) R.Br.		1			
<i>Vallis solanacea</i> (Vahl) Kuntze		1			
<i>Wrightia tomentosa</i> Roem. & Schult.		17			
<i>W. antidysenterica</i> (L.) R.Br.		1			
<i>Ichnocarpus frutescens</i> (L.) Ait.f.		1			
<i>Nerium oleander</i> L.		12			
Aselepiadaceae					
<i>Hemidesmus indicus</i> (L.) Ait.f.		1			
<i>Cryptolepis buchananii</i> Roem. & Schult.		1			
<i>Secamone emetica</i> (Retz.) R.Br.		1			
<i>Oxystelma esculentum</i> (L.f.) R.Br.		1			
<i>Calotropis gigantea</i> (L.) Aft.f.		157			
<i>Pentatropis microphylla</i> (Heyne) Wight & Arn.		1			
<i>Pergularia daemia</i> (Forsk.) Choisy.		1			
<i>Holostemma annulare</i> (Roth) K. Schum.		1			
<i>Sarcostenum brunonianum</i> Wight & Arn.		1			
<i>Gymnemma sylvestre</i> (Retz.) R.Br.		1			
<i>Marsdenia tenacissima</i> (Roxb.) Moon		1			
<i>Tylophora fasciculata</i> Buch-Ham.		12			
<i>T. indica</i> (L.) Merr.		1			
<i>Cosmostigma racemosum</i> Wight		1			
<i>Dregea volubilis</i> (L.f.) Hook.f.	4	1			
<i>Leptadenia reticulata</i> (Retz.) Wight & Arm.		1			
Convolvulaceae					
<i>Cuscuta reflexa</i> Roxb.		1			
<i>C. chinensis</i> Lam.		17			
<i>Cressa cretica</i> L.		1			
<i>Evolvulus alsinoides</i> (L.) L.		1			
<i>Ericybe paniculata</i> Rexb.		1			
<i>Rivea ornata</i> (Roxb.) Choisy	4	1			
<i>Merremia tridentata</i> (L.) Hallier f.		1			
<i>M. emarginata</i> (Burm.f.) Hallier f.		1			
<i>M. umbellata</i> (L.) Hallier f.		1			
<i>M. vitifolia</i> (Burm.f.) Hallier f.		1			
<i>Operculina turpethum</i> (L.) Mansoc		1			
<i>Ipomoea mauritiana</i> Jacq.		1			
<i>I. muricata</i> (L.) Jacq.	4	1			
<i>I. pes-tigridis</i> L.		1			
<i>I. eriocarpa</i> R.Br.		1			
<i>I. obscura</i> (L.) Ker. Gawl.		1			
<i>I. pes-caprae</i> (L.) R.Br.		1			
<i>I. aguatica</i> Forsk.	4	1			
<i>Argyrea populifolia</i> Choisy	4	4			

<i>Momordica charantia</i> L.	4	8
<i>M. dioica</i> Roxb.	4	
<i>Cucumis melo</i> var. <i>agrestis</i> Naud.	4	6
<i>C. sativus</i> L.	4	
<i>Luffa aegyptiaca</i> Mill	4	
<i>L. acutangula</i> (L.) Roxb.	4	
<i>Colecyntus vulgaris</i> Schrad.	4	
<i>C. citrullus</i> (L.) Kuntze	4	
<i>Bryonopsis laciniosa</i> (L.) Naud.	6	
<i>Melothria maderaspatana</i> (L.) Cogn.		
<i>M. perpusilla</i> (Bl.) Cogn.		
<i>M. heterophylla</i> (Lour) Cogn.		
<i>Kedrostis rostrata</i> (Rottl.) Cogn.		
<i>Coralocarpus epigaeus</i> (Rottl.) C.B. Clarke		
<i>Ctenolepis garcini</i> (L.) C.B. Clarke		
<i>Benincasa hispida</i> (Thunb.) Cogn.	4	
<i>Zanonia indica</i> L.		
Campanulaceae		
<i>Lobelia nicotianifolia</i> Heyne		
Godeniaceae		
<i>Scaevola sericea</i> Vahl		
Compositae		
<i>Vernonia cinerea</i> (L.) Less.		
<i>V. anthelmintica</i> (L.) Willd.	4	
<i>V. zeylanica</i> (L.) Less.		
<i>Elephantopus scaber</i> L.		
<i>Adenostemma lavenia</i> (L.) Kuntze		
<i>Grangea maderaspatana</i> (L.) Poir.		
<i>Erigeron asteroides</i> Roxb.		
<i>Lagera alata</i> (D. Don) Schultz-Bip.		
<i>Epaltes divaricata</i> (L.) Cass.		
<i>Sphaeranthus indicus</i> L.		
<i>S. africanus</i> L.		
<i>Xanthium strumarium</i> L.		
<i>Siegesbeckia orientalis</i> L.		
<i>Eclipta prostrata</i> (L.) L.		
<i>Wedelia chinensis</i> (Osbeck) Merr.		
<i>W. biflora</i> (L.) DC.		
<i>Spilanthes paniculata</i> Wall.		
<i>Centipeda minima</i> (L.) A. Br. & Aschers.		
<i>Emilia sonchifolia</i> (L.) DC.	4	
<i>Notonia grandiflora</i> DC.		
<i>Lactuca runcinata</i> DC.		
<i>Launaea sarmentosa</i> (L.) Alston		

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