BULL. BOT. SURV. INDIA
Vol. 36, Nos. 1-4 : pp. 169-177, 1994

MONOTYPIC GENERA OF ANGIOSPERMS IN INDIAN FLORA NEED FOR CONSERVATION

B. P. UNIYAL AND (MRS.) R. MATHUR
Botanical Survey of India, Dehra Dun

ABSTRACT

In this paper monotypic genera of angiosperms in Indian flora have been enumerated. The number of such genera amounts to 189. The family Poaceae has the maximum number (32) of monotypic genera. In this communication emphasis is laid on the conservation of monotypics, for if they are lost, we will loose them for ever. *Hubbardia* (Poaceae) is said to be facing extinction while *Meeboldia* has not been collected after the type collection.

INTRODUCTION

The term monotypic is self explanatory. A family is said to be monotypic if represented by a single genus with single species. Similarly a genus is monotypic when represented by Type species only. Indian Flora has many such genera. Out of these some are true monotypic e.g. *Circaeaster, Adenoon, Ariopsis, Hemiphragma,* while others are either due to segregation, reduction or nomenclatural changes. Thus when Ridsdale [Blumea 24 (2) : 361. 1978] segregated *Khasiaclunea, Haldina* and *Diyaminauclea* from tribe *Naucleae,* all the three genera became monotypic. On the other hand when Clayton [Kew Bull. 35 (4) : 816. 1981] reduced *Ischnochloa* to *Microstegium*, out went a monotypic genus. *Pauella, Ougeinia, Normanboria* etc. are some more examples of this kind. Certain anomalous species e.g. *Senecio lavandulifolius, Boesenbergia longiflora, Aerva monsoniae,* when studied critically, were found to be good enough to be assigned to a new genus and thus *Pseudojacobaea, Curcumorpha* and *Trichuriella* (*Trichurus*) came into existence. All these genera are monotypic. *Indopoa, Indobanalia, Indopiptadenia, Neodistamon, Parakaempferia* are some other examples.

The monotypics deserve special attention from the conservation point of view because they represent taxa which if lost will be lost for ever. As is evident from the records, the monotypics like *Kendrickia walkeri, Meeboldia selinoides, Meteoromyrtus wynaadensis, Hubbardia heptaneuron, Paracautleya bhatii, Seshagiria sahyadrica*, etc. are endemic to India and are restricted to small areas. Some of them even have not been collected after their type collection. Many of these are endangered due to deforestation and habitat destruction. It is, therefore, desirable to conserve such taxa both in nature as well as in botanic gardens.

The present list includes monotypic genera of angiosperms in Indian flora. As taxonomy is a matter of opinion and opinions differ, the list can never be final. For instance genera like *Chukrasia, Oxyria, Sapria, Toddalia, Virgilea* etc. are opined to have one or two species and hence are doubtful monotypics. Further the discovery of new species may also effect the list of monotypics. *Bhidea* is one such example. The discovery of *Bhidea fischeri* Sreekumar has caused the exit of the genus *Bhidea* from the list.

ENUMERATION

Aboriella myriantha (Dunn) Bennet (Urticaceae).

Distrib. : India : Arunachal Pradesh.

Adenoon indicum Dalz. (Asteraceae).

Distrib. : India : Goa, Karnataka, Maharashtra, Tamil Nadu. Endemic.

Aldrovanda vesiculosa L. (Droseraceae).

Distrib. : India : W. Bangal; Central Europe, Australia.

Alexeya vedenskyi Pakhomova (Ranunculaceae).

Distrib. : India : Himalaya.

Anthogonium gracile Wall. ex. Lindl. (Orchidaceae).

Distrib. : India : Sikkim, Nagaland, Meghalaya; China, Thailand.

Apluda mutica L. (Poaceae).

Distrib. : Throughout India; Afghanistan, Pakistan, Socotra to Formosa.

Ariopsis peltata Nimmo (Araceae).

Distrib. : India : Sikkim, W. Ghats; Nepal; Burma.

Ascopholis gamblei Fischer. (Cyperaceae).

Distrib. : India : Tamil Nadu, Karnataka. Endemic.

Benincasa hispida (Thunb.) Cogn. (Cucurbitaceae).

Distrib. : Throughout India; Malaya, China, Japan.

Biswarea tonglensis (Cl.) Cogn. (Cucurbitaceae).

Distrib. : India : Sikkim, W. Bengal, Assam, Manipur. Endemic.

Blepharistemma corymbosum Wall. ex Benth. (Rhizophoraceae).

Distrib. : India : W. Peninsula. Endemic.

Blumeopsis flava (DC.) Gagnep. (Asteraceae).

Distrib. : India : Northern India, Andaman & Nicobar Island, Bihar, Sikkim; Bangladesh, Burma, Malaya.

Boenninghausenia albiflora (W. J. Hooker) C. R. Meissner (Rutaceae).

Distrib. : India : Himalaya; Japan.

Bonnayodes limnophiloides Blatt. et Hallb. (Scrophulariaceae).

Distrib. : India : Maharashtra. Endemic.

Brachycaulos simplicifolius Dixit & Panigrahi (Rosaceae).

Distrib. : India : Sikkim.

Brasenia schreberii J. F. Gmel. (Cabombaceae).

Distrib. : India : Meghalaya; Bhutan, East N. America, E. Australia.

Bryocarpum himalaicum Hook. f. & Thoms. (Primulaceae).

Distrib. : India : E. Himalaya.

Bulleyia yunnanensis Schltr. (Orchidaceae).

Distrib. : India : E. Himalaya, Arunachal Pradesh, N. Bengal; S. W. China.

Butomopsis latifolia (D. Don) Kunth (Limnocharitaceae).

Distrib. : India : Plains, Assam, Deccan; Tropics of old World.

Butomus umbellatus L. (Butomaceae).

Distrib. : India : Jammu & Kashimr, Punjab; Europe & N. Asia.

Bythophyton indicum Hook. f. (Scrophulariaceae).

Distrib. : India : Meghalaya.

Caesulia axillaris Roxb. (Asteraceae).

Distrib. : India : N. India, Punjab, Deccan; Sri Lanka.

Calacanthas dalzellianus T. Anderson ex Benth. (Acanthaceae).

Distrib. : India : Maharasthra, Karnataka.

Cannabis sativa L. (Cannabaceae).

Distrib. : Throughout India; Central Asia.

Catamixis baccharoides Thoms. (Asteraceae).

Distrib. : India : W. Himalaya; Nepal.

Centrostachys aquatica Wall. ex Moq. (Amaranthaceae).

Distrib. : India : Assam, Coromandal, Circars; Banglasesh, Nepal, Burma, Tropical Africa.

Chandrasekharania keralensis Nair *et al.* (Poaceae).
Distrib. : India : Kerala. Endemic.

Chionocharis hookeri (Clarke) I. M. Johnston (Boraginaceae).
Distrib. : India : Eastern Himalaya; Bhutan, Chaina, Nepal, Tibet.

Chydenanthes excelsus (Bl.) Miers (Barringtoniaceae).
Distrib. : India : Andaman & Nicobar Island; Burma, Indonesia.

Circaeaster agrestis Maxim. (Circaeasteraceae).
Distrib. : India : Western Himalaya; Bhutan, China, Tibet.

Colebrookia oppositifolia Sm. (Lamiaceae).
Distrib. : India : Subtropical Himalaya, Bihar, Madhya Pradesh, Deccan peninsula; Burma.

Corbichonia decumbens (Forssk.) Exell. (Aizoaceae).
Distrib. : India : Punjab, Karnataka, Tamil Nadu; W. Asia & Africa.

Cottonia macrostachya Wight (Orchidaceae).
Distrib. : India : Deccan peninsula; Sri Lanka.

Craniotome versicolor Reichb. (Lamiaceae).
Distrib. : India : Temperate Himalaya, Meghalaya; Bhutan.

Curcumorpha longiflora (Wall.) A.S. Rao & D. M. Verma (Zingiberaceae).
Distrib. : India : Assam, Meghalaya.

Cyathopus sikkimensis Stapf (Poaceae).
Distrib. : India : Sikkim. Endemic.

Cydonia vulgaris Pers. (Rosaceae).
Distrib. : N. W. India; China, East & South Europe.

Danthonidium gammiei (Bhide) Hubb. (Poaceae).
Distrib. : India : Maharashtra, Karnataka. Endemic.

Decaisnea insignis Hook. f. & Th. (Berberidaceae).
Distrib. : India : E. Himalaya; Bhutan.

Deccania pubescence (Roth) Trivangadam (Rubiaceae).
Distrib. : India : Deccan.

Desmostachya bipinnata (L.) Stapf (Poaceae).
Distrib. : Cosmopolitan.

Dicaelospermum ritchiei C. B. Clarke (Cucurbitaceae).
Distrib. : India : Karnataka, Maharashtra, Punjab, Tamil Nadu. Endemic.

Dickasonia vernicosa L. O. Williams (Orchidaceae).
Distrib. : India : Manipur; Burma.

Didiciea cunninghamii K. & P. (Orchidaceae).
Distrib. : India : Uttar Pradesh, Sikkim.

Dipterygium glaucum Decne. (Brassicaceae).
Distrib. : India : Punjab; Arabia & N. E. Africa.

Edgaria darjeelingensis Cl. (Cucurbitaceae).
Distrib. : India : Sikkim, W. Bengal. Endemic.

Eleutharrhena macrocarpa (Diels) Forman (Menispermaceae).
Distrib. : India : Meghalaya.

Enhalus acoroides (L. f.) Royle (Hydrocharitaceae).
Distrib. : India : Coromandel Coast; Australia.

Erinocarpus nimmonii Graham (Tiliaceae).
Distrib. : India : W. Peninsula, Concan, Deccan.

Eriodes barbata (Lindl.) Rolfe (Orchidaceae).

Distrib. : India : Meghalaya; Burma, China, Vietnam.

Eriophyton wallichianum Benth. (Lamiaceae).

Distrib. : India : Sikkim; Nepal.

Fergusonia zeylanica J. D. Hooker (Rubiaceae).

Distrib. : India : Karnataka; Sri Lanka.

Fissendocarpa linifolia (Vahl) Bennet (Onagraceae).

Distrib. : India; Trop. Africa, America.

Frerea indica Dalz. (Asclepiadaceae).

Distrib. : India : Maharashtra, Endemic.

Goniocaulon glabrum Cass. (Asteraceae).

Distrib. : India : Uttar Pradesh, Madhya Pradesh, Bihar, Central India, Deccan, W. Bengal.

Getonia floribunda Lam. (Combretaceae).

Distrib. : India : Deccan, Assam; Singapore.

Gontscharovia popovii (Fedtsch. & Gontsch.) Boiss. (Lamiaceae).

Distrib. : India : Jammu & Kashmir; C. Asia.

Gynandropsis pentaphylla (L.) DC. (Capparidaceae).

Distrib. : India : Throughout warm parts; All tropical countries.

Gynocardia odorata R. Br. (Flacourtiaceae).

Distrib. : India : Sikkim, Meghalaya; Bangladesh, Burma.

Haldina cordifolia (Roxb.) C. E. Ridsdale (Rubiaceae).

Distrib. : India : Throughout the hilly parts; Burma, China, Sri Lanka, Vietnam, Thailand.

Halopyrum mucronatum Stapf (Poaceae).

Distrib. : India : Maharashtra, Tamil Nadu; N. E. Africa, Southern Arabia, Pakistan, Sri Lanka.

Haplothismia exannulata Airy Shaw (Burmanniaceae).

Distrib. : India : Kerala. Endemic.

Hemidesmus indicum (Willd.) J. A. Schultz. (Periplocaceae).

Distrib. : India : N. India, Sikkim, Southwards to Kerala; S.E. Asia.

Hemiphragma heterophyllum Wall. (Scrophulariaceae).

Distrib. : India : Temperate Himalaya, Meghalaya; Nepal.

Herpetospermum caudigerum Wall. ex Clarke (Cucurbitaceae).

Distrib. : India : Temperate Himalaya, Sikkim, Meghalaya; Bhutan.

Hodgsonia heteroclita (Roxb.) J. D. Hooker et Thoms. (Cucurbitaceae).

Distrib. : India : Sikkim, Assam, Meghalaya; Bangladesh, Burma, Penang, Malacca.

Hubbardia heptaneuron Bor (Poaceae).

Distrib. : India : Karnataka. Endemic.

Hydrobryopsis sessilis (Willis) Engler (Podostemaceae).

Distrib. : India : Andhra Pradesh, Karnataka, Kerala. Endemic.

Hydrocera triflora (L.) W. & A. (Balsaminaceae).

Distrib. : India : Throughout Bengal, E. W. Peninsula; Sri Lanka, Burma.

Hygroryza aristata (Retz.) Nees (Poaceae).

Distrib. : Throughout India; Sri Lanka.

Indobanalia thyrsiflora (Moq.) Henry & B. Roy (Amaranthaceae).

Distrib. : India : Tamil Nadu. Endemic.

Indofevellia khasiana Chatterjee (Cucurbitaceae).

Distrib. : India : Assam, Meghalaya, Arunachal Pradesh; Bhutan.

Indopiptadenia oudhensis (Brandis) Brenan (Leguminosae).

Distrib. : India : Uttar Pradesh. Endemic.

Indopoa paupercula (Stapf) Bor (Poaceae).
Distrib. : India : W. Ghats. Endemic.

Ivanjohnstonia jaunsariensis Kazmi (Boraginaceae).
Distrib. : India : N. W. Himalaya.

Jainia nicobarica Balak. (Rubiaceae).
Distrib. : India : Nicobar Island.

Janakia aravalpathra J. Joseph & V. Chandrasekaran (Asclepiadeceae).
Distrib. : India : Tamil Nadu, Kerala. Endemic.

Jansenella griffithiana (C. Muller) Bor (Poaceae).
Distrib. : India : Assam, Maharashtra, Tamil Nadu; Sri Lanka.

Jejosephia pusilla (Joseph & Deka) Rao & Mani (Orchidaceae).
Distrib. : India : Meghalaya.

Jerdonia indica R. Wight (Gesneriaceae).
Distrib. : India : S. India. Endemic.

Julostylis angustifolia (Arn.) Thw. (Bombacaceae).
Distrib. : India : Kerala; Sri Lanka.

Kandelia rheedei (L.) R. Wight et Arn. (Rhizophoraceae).
Distrib. : India : W. Bengal, Peninsula; Sri Lanka, Malaya.

Kanjarum palghatense Ramamurthy (Acanthaceae).
Distrib. : India : Kerala. Endemic.

Kashmiria himalaica Hook. f. & D. Y. Hong (Scrophulariaceae).
Distrib. : India : Western Himalaya.

Kedarnatha sanctuarii Mukherjee & Constance (Apiaceae).
Distrib. : India : Uttar Pradesh.

Kendrickia walkeri (Wight) Hook. f. ex Triana (Melastomataceae).
Distrib. : India : Tamil Nadu; Sri Lanka.

Khasiaclunea oligocephala (Havil) Ridsdale (Rubiaceae).
Distrib. : India : Assam, Manipur, Meghalaya; Burma, China.

Kleinhovia hospita L. (Byttneriaceae).
Distrib. : India : Karnataka, E. W. Peninsula; Singapore, Sri Lanka, Java, Philippines.

Lamarckia aurea Moench. (Poaceae).
Distrib. : India : Uttar Pradesh; Mediterranean, Middle East.

Lamprachaenium microcephalum Benth. (Asteraceae).
Distrib. : India : Goa, Maharashtra. Endemic.

Lasiurus hirsutus (Poaceae).
Distrib. : India : N. W. India; Iraq, Ethiopia, Egypt, Mali, Somalia, Tropical Arabia.

Lawsonia inermis L. (Lythraceae).
Distrib. : Throughout India; Afghanistan, Iran.

Lepidostemon pedunculosus Hook. f. & Thoms. (Brassicaceae).
Distrib. : India : Sikkim Himalaya.

Limnocharis flava (L.) Buchen. (Butomaceae).
Distrib. : India : Kerala; Tropical South America, W. Indies.

Limnopoa meeboldii (Fischer) Hubb. (Poaceae).
Distrib. : India : Kerala. Endemic.

Lopholepis ornithocephala (Hook.) Steud. (Poaceae).
Distrib. : India : South India; Sri Lanka.

Lygeum spartum L. (Poaceae).
Distrib. : India : Jammu & Kashmir; Mediterranean.

Meeboldia selinoides H. Wolff. (Apiaceae).
Distrib. : India : Uttar Pradesh. Endemic.

Metadina trichotoma (Zoll. & Mor.) Bakhuizen (Rubiaceae).
Distrib. : India : Assam, Manipur, Meghalaya; Burma, Cambodia, Borneo, Java, Philippines, Sumatra, Vietnam.

Meteoromyrtus wynaadensis (Bedd.) Gamble (Myrtaceae).
Distrib. : India : S. India. Endemic.

Micholitzia obcordata N. E. Br. (Asclepiadaceae).
Distrib. : India : Meghalaya, Manipur. Endemic.

Microcarpaea muscosa R. Br. (Scrophulariaceae).
Distrib. : India : W. Bengal, Uttar Pradesh, Karala; China, Indo-Malaya, Australia, Java.

Microschoenus duthiei Clarke (Cyperaceae).
Distrib. : India : W. Himalaya. Endemic.

Milula spicata Prain (Alliaceae).
Distrib. : India : Jammu & Kashmir; Tibet.

Mischodon zeylanicus (Thw.) Hooker (Euphorbiaceae).
Distrib. : India : S. India; Sri Lanka.

Myagrum perfoliatum L. (Brassicaceae).
Distrib. : India : Uttar Pradesh, W. Bengal; Europe, Mediterranean.

Myriopteron paniculatum Griff. (Periplocaceae).
Distrib. : India : Assam; Bangladesh, Burma, Indonesia.

Myriostachya wightiana Hook. f. (Poaceae).
Distrib. : India : Tamil Nadu; Sri Lanka, Burma, Malaya Peninsula, Indo-China.

Nanothamnus sericeus Thoms. (Asteraceae).
Distrib. : India : South India, Maharashtra. Endemic.

Naringi crenulata (Roxb.) Nicolson (Rutaceae).
Distrib. : India : N. W.Himalaya, Bihar, Assam, W. Peninsula.

Natsiatum herpeticum Hamilt. ex Arnott (Icacinaceae).
Distrib. : India : Eastern Himalaya; Burma, Indo -China.

Nayariophyton jujubifolium (Griff.) T. K. Paul (Malvaceae).
Distrib. : India : Manipur, Meghalaya, Mizoram, Sikkim, W. Bengal; Bhutan, China.

Nelsonia campestris R. Br. (Acanthaceae).
Distrib. : Throughout India; Sri Lanka, Malacca, Indo-China, Tropical Africa.

Neodistemon indicum (Wedd.) Babu & Henry (Urticaceae).
Distrib. : India : Assam, Uttar Pradesh; Burma, Indonesia.

Neogyna gardneriana Lindl. (Orchidaceae).
Distrib. : India : Meghalaya; Bhutan, Burma, China, Laos.

Neonotonia wightii (Arnott) J. A. Lackey (Leguminosae).
Distrib. : India : Tamil Nadu; Indonesia, Tropical Africa,

Neurada procumbens L. (Neuradaceae).
Distrib. : India : Rajasthan; Pakistan, E. Mediterranean.

Nicandra physaloides (L.) Gaertn. (Solanaceae).
Distrib. : India : Subtemperate Himalaya, Kashmir to Sikkim, W. Deccan; Peru.

Nicobariodendron sleumeri Vasud. & Chakrabarty (Celastraceae).
Distrib. : India : Nicobar Islands. Endemic.

Nipa fruticans Thunb. (Arecaceae).
Distrib. : India : West Bengal; Sri Lanka, Malay Peninsula, Australia.

Nothosaerva brachiata (L.) Wight (Amaranthaceae).

Distrib. : India : Upper Gang. Plain, Punjab, Maharashtra, Tamil Nadu; Sri Lanka, Burma.

Ochthochloa compressa (Forsk.) Hilu (Poaceae).

Distrib. : India : Plains; Afghanistan, Pakistan, Arabia to N. E. Africa.

Otonephelium stipulaceum (Bedd.) Radlk. (Sapindaceae).

Distrib. : India : Peninsular India.

Pachystylidium hirsutum (Bl.) Pax et Horrm. (Euphorbiaceae).

Distrib. : India : Peninsular India; Indo-China, Indonesia, Thailand.

Pajanelia rheedii DC. (Bignoniaceae).

Distrib. : India : Meghalaya, Andaman & Nicobar; Bangladesh, Burma.

Pamburus missionis (R. Wight) Swingle (Rutaceae).

Distrib. : India : Peninsula, W. Bengal; Sri Lanka.

Paracautleya bhatii Smith (Zingiberaceae).

Distrib. : India : Karnataka. Endemic.

Parajaeschkea smithii Burkill (Gentianaceae).

Distrib. : India : Eastern Himalaya.

Parakaempferia synantha Rao & Verma (Zingiberaceae).

Distrib. : India : Assam. Endemic.

Parochetus communis Ham. ex. D. Don (Leguminosae).

Distrib. : India : Alpine, temperate & subtropical Himalaya, Himachal Pradesh, Uttar Pradesh, Assam, Tamil Nadu; Sri Lanka, Burma, Java.

Pauia belladonna Deb et Dutta (Solanaceae).

Distrib. : India : Arunachal Pradesh. Endemic.

Pauldopia ghorta (Buch. - Ham. ex G. Don) van Steenis (Bignoniaceae).

Distrib. : India : North Eastern India; China, S. E. Asia.

Pedalium murex L. (Pedaliaceae).

Distrib. : India : Deccan Peninsula; Sri Lanka, Tropical Africa.

Pentabothra nana (Ham. ex Wight) J. D. Hooker (Asclepiadaceae).

Distrib. : India : Assam, W. Bengal. Endemic.

Pentapetes phoenicia L. (Byttneriaceae).

Distrib. : India : Throughout the hotter parts, W. Peninsula; Bürma.

Peracarpa carnosa Hook. & Th. (Campanulaceae).

Distrib. : India : Uttar Pradesh, Meghalaya; Japan, Philippine, Taiwan.

Phaenosperma globosa Benth. (Poaceae).

Distrib. : India : Assam, Sikkm; China, Bhutan, S. Tibet.

Philydrum lanuginosum Banks ex J. Gaertn. (Philydraceae).

Distrib. : India : Andaman & Nicobar Island; Australia, China, Burma, Malay Peninsula.

Pistia stratiotes L. (Araceae).

Distrib. : Throughout India; Sri Lanka, Tropics of the World.

Platystemma violoides Wall. (Gesneriaceae).

Distrib. : India : Temperate West. Himalaya; Nepal.

Pogonachne racemosa Bor (Poaceae).

Distrib. : India : Maharashtra. Endemic.

Polysolen wallichii Hook. f. (Rubiaceae).

Distrib. : India : Assam, Meghalaya; Bangladesh.

Polytrias amaura (Buse) O. Ktze. (Poaceae).

Distrib. : India : West Bengal; South East Asia.

Polyura geminata (Wall.) Hooker (Rubiaceae).
Distrib. : India : Meghalaya, Arunachal Pradesh. Endemic.

Polyzygus tuberosus Walpers (Apiaceae).
Distrib. : India : Gujarat, Karnataka, Maharashtra.

Pommereula cornucopiae L. f. (Poaceae).
Distrib. : India : S. India; Sri Lanka.

Proteroceras holtumii Joseph & Vajravelu (Orchidaceae).
Distrib. : India : Tamil Nadu.

Pseudaechmanthera tomentosa Nees (Acanthaceae).
Distrib. : India : Uttar Pradesh; Nepal.

Pseudodichanthium serrafalcoides (Cooke & Stapf) Bor (Poaceae).
Distrib. : India : Maharashtra. Endemic.

Pseudojacobaea lavandulaefolius (DC.) R. Mathur (Asteraceae).
Distrib. : India : Tamil Nadu, Kerala. Endemic.

Pycnoplinthus uniflora (Hook. et Thom.) Schultes (Brassicaceae).
Distrib. : India : Himalaya.

Pycnospora lutescens (Poir.) Schindler. (Leguminosae).
Distrib. : Throughout India; Tropics of old World.

Remirea maritima Aubl. (Cyperaceae).
Distrib. : India : Canara, Nicobar Island; Tropical Sea Coasts.

Risleya atropurpurea K. & P. (Orchidaceae).
Distrib. : India : Sikkim; China.

Roylea elegans Wall. ex Benth. (Lamiaceae).
Distrib. : India : Sub-tropical W. Himalaya.

Santapaua madurensis Balak. & K. Subramanyan (Acanthaceae).
Distrib. : India : Tamil Nadu. Endemic.

Sarcochlamys pulcherrima Gaud. (Urticaceae).
Distrib. : India : Assam, Meghalaya; Bangladesh, Burma, Sumatra.

Scirpodendron ghaeri (Gaertn.) Merr. (Cyperaceae).
Distrib. : India : Nicobar Island; Sri Lanka.

Sclerachne punctata R. Br. (Poaceae).
Distrib. : India : Tamil Nadu; Indo-China.

Scyphiphora hydrophyllacea Gaertn. (Rubiaceae).
Distrib. : India : Andamans, Karnataka; Australia, Caledonia.

Seshagiria sahyadrica Ansari et Hemadri (Asclepiadaceae).
Distrib. : India : Maharashtra. Endemic.

Silentvalleya nairii Nair et al. (Poaceae).
Distrib. : India : Kerala. Endemic.

Sinomenium acutum (Thunb.) Rehder (Menispermaceae).
Distrib. : India : Uttar Pradesh; E. Asia.

Spermadictyon suaveolens Roxb. (Rubiaceae).
Distrib. : India : Tropical and subtropical Himalaya, Madhya Pradesh, Western Peninsula, Bihar, Karnataka; Bhutan, China, Pakistan.

Sphaerocaryum malaccense (Trin.) Pilger (Poaceae).
Distrib. : India : Assam, Manipur; Sri Lanka, Burma, S. E. Asia, China.

Sphaerosacme decandra (Wall.) Penington (Meliaceae).
Distrib. : India : Sikkim; Bhutan, Nepal.

Stilbanthus scandens J. D. Hooker. (Amaranthaceae).
Distrib. : India : Sikkim; Bangladesh.

Stracheya tibetica Benth. (Leguminosae).
Distrib. : India : Jammu & Kashmir; Nepal, Tibet.

Streptolirion volubile Edgew. (Commelinaceae).
Distrib. : India : Temperate Himalaya, Assam, Manipur; Bhutan, China, Indo-China, Korea.

Struchium sparganophorum (L.) O. Ktze. (Asteraceae).
Distrib. : India : Nicobar Islands, Kerala; Africa, Mexico, S. America, W. Indies.

Sumbaviopsis albicans (Bl.) J. J. Sm. (Euphorbiaceae).
Distrib. : India : Assam, Arunachal Pradesh, Nagaland, Tripura; Thailand.

Suriana maritima L. (Surianaceae).
Distrib. : India : Andaman & Nicobar Island, Lakshwadweep, Tamil Nadu; Pakistan, Sri Lanka.

Tecomella undulata (G. Don) Seemann (Bignoniaceae).
Distrib. : India : Western India, Punjab. Gujarat, Rajasthan; Pakistan, S. W. Asia.

Tetracentron sinense D. Oliver (Tetracentraceae).
Distrib. : India : N. E. India; Bhutan, Burma, S. W. China.

Thelepogon elegans Roem. &Sch. (Poaceae).
Distrib. : India : Madhya Pradesh, Maharashtra, Tamil Nadu; Tropical Africa.

Theropogon pallidus Maxim. (Liliaceae).
Distrib. : India : Temperate Himalaya, Meghalaya, Sikkim.

Thylacospermum caespitosum (Caryophyllaceae).
Distrib. : India : Himalaya; China, C. Asia.

Thysanolaena maxima (Roxb.) O. Ktze. (Poaceae).
Distrib. : Throughout India; Tropical Asia.

Trachys muricata (L.) Trin. (Poaceae).
Distrib. : India : Tamil Nadu; Burma, Sri Lanka.

Trichuriella monsoniae (L. f.) Bennet (Amaranthaceae).
Distrib. : India : Orissa, W. Bengal, Deccan Peninsula; Burma

Trichopus zeylanicus Gaertn. (Dioscoreaceae).
Distrib. : India : S. India; Sri Lanka, Malay Peninsula.

Trilobachne cookei (Stapf) Henr. (Poaceae).
Distrib. : India : Maharashtra, Karnataka. Endemic.

Triplopogon spathiflorus (Hook.) Bor (Poaceae).
Distrib. : India : Maharashtra. Endemic.

Tussilago farfara L. (Asteraceae).
Distrib. : India : N. W. Himalaya; Afghanistan, N. W. Asia, N. Africa, Europe.

Urochondra setulosa (Trin.) Hubb. (Poaceae).
Distrib. : India : Gujarat; Pakistan, N. E. Tropical Africa.

Vanasushava pedata (Wight) Mukerjee (Apiaceae).
Distrib. : India : South India.

Vossia procera Wall. ex Griff. (Poaceae).
Distrib. : India : Assam, W. Bengal; Burma, Tropical Africa.

Zataria multiflora Boiss. (Lamiaceae).
Distrib. : India : Jammu & Kashmir; Afghanistan, Iran, Pakistan.

ACKNOWLEDGEMENTS

The authors are thankful to the Director, Botanical Survey of India for facilities, and to the Deputy Director, Botanical Survey of India, Northern Circle, Dehra Dun for going through the manuscript and for suggestions.

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