

Conspectus of family Rubiaceae in West Bengal, India

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ABSTRACT

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The paper deals with an account of 155 taxa including 144 species belonging to 49 genera of the family Rubiaceae in West Bengal.

Key-words: Rubiaceae, distribution, West Bengal, India.

INTRODUCTION

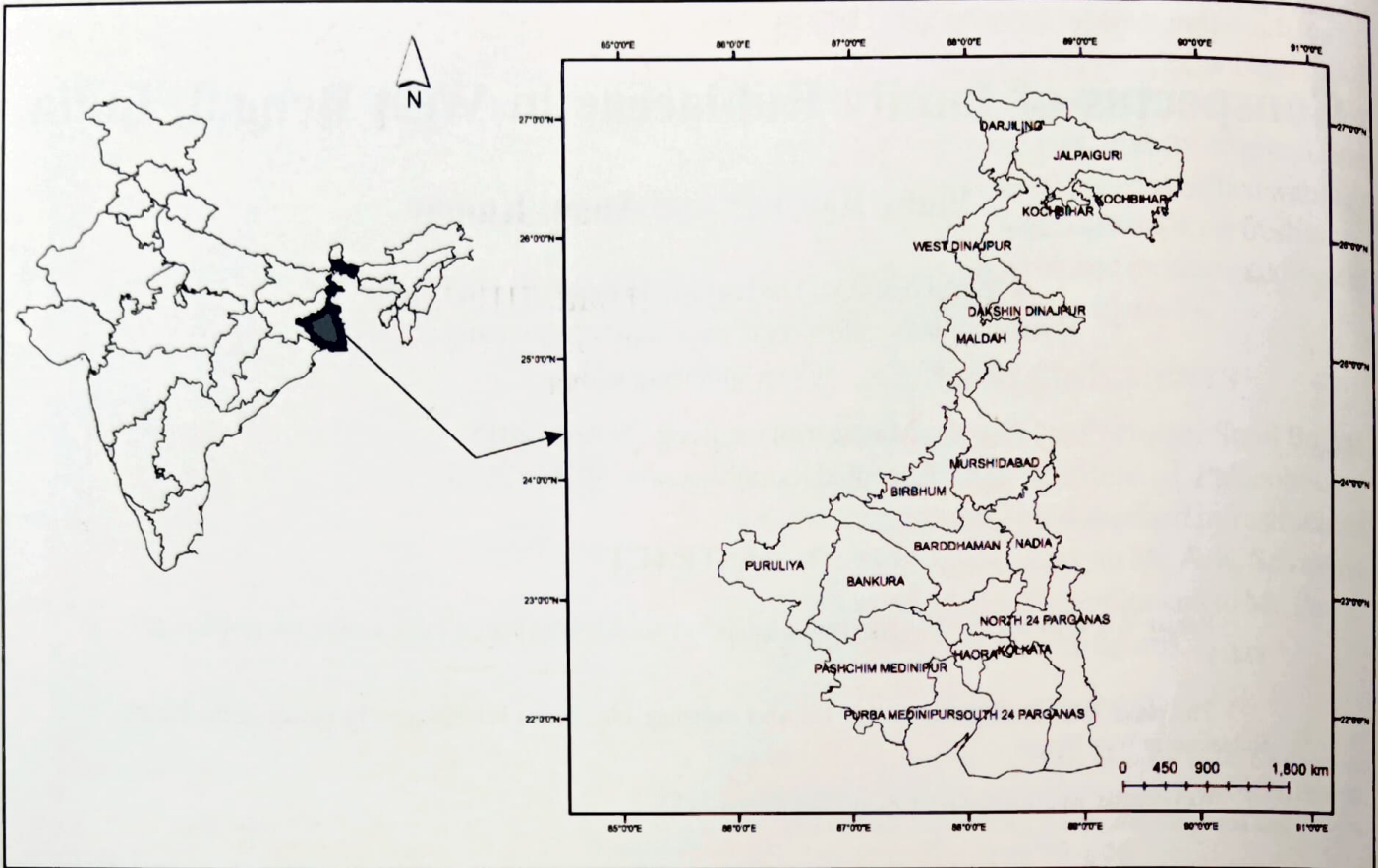
West Bengal (21°45' to 27°16' north latitudes; 85°55' to 86°56' east longitudes) comes under lower Gangetic plains and Himalayan regions (Rodgers et al. 2000) and covers an area of 87,572 km² (2.7% of India) (Text-figure 1). Of which 3423.77 km² is under protected areas (06 national parks and 15 wildlife sanctuaries). Three distinct landforms, viz. Himalayan, lower Gangetic plains and lateritic Sunderban areas and varied climatic conditions favour the rich floristic diversity of angiosperms (4387 species) in West Bengal.

Rubiaceae are usually easy to identify by the presence of simple, opposite or whorled, entire leaves, interpetiolar stipules and an inferior ovary. It is cosmopolitan in distribution, predominantly in tropics and subtropics. It shows its occurrence more in lowland humid forests. The family has all life-forms: trees (*Gardenia*, *Haldina*, etc.), shrubs, herbaceous plants of annual and perennial life cycles, lianas (*Uncaria*), epiphytes (*Argostemma*), geofrutices plants with woody rootstocks, myrmecophiles plants (*Morinda*) with hollow stems containing ants or ant colonies (Davis

& Bridson 2007).

With 13,143 species in 611 genera, Rubiaceae is the fourth largest angiosperm family in the world (Davis et al. 2009). In India, it stands at fifth position with 616 species and 113 genera (Deb 2001). Hooker (1880-1881) placed it at the fourth position in *Flora of British India* (91 genera and 609 species, of these 23 genera and 187 species are now non-Indian species) (Kar & Panigrahi 1963). Prain (1903) placed it at the seventh position with 90 species & 03 varieties under 34 genera in *Bengal Plants* which includes undivided Bengal, areas of Bihar, Tirhut, Chotanagpur, Orissa, Tippera and Chittagong.

The present study was initiated as a part of completion of Flora of West Bengal and result shows that Rubiaceae occupies sixth position with 155 taxa including 144 species belonging to 49 genera. Knowledge on the systematic and distribution of family Rubiaceae in West Bengal is largely inadequate despite the sporadic publications. Therefore, detailed study was carried out, that is not required here. However, present enumeration gives an overview of presence of Rubiaceae taxa in West Bengal for assessing their



Text-figure 1. Map of West Bengal from where rubiaceous taxa are reported.

distribution and diversity. It will be useful to facilitate decision making and implementation of conservation programme particularly to the endemic and rare species.

METHODOLOGY

All the taxa of Rubiaceae enumerated here are based on specimens housed at CAL (several collected by authors from Gorumara National Park and Buxa Wildlife Sanctuary), LWG, Lloyd Botanical Garden, Darjeeling and North Bengal University (NBU), Siliguri or cited in literature. All the published floras and sporadic publications pertaining to state (Prain 1903, Biswas 1966, Hara 1966, Krishna & Dutta 1979, Bennet 1979, Matthew 1981, Das & Roy 1984, Guha Bakshi 1984, Sanyal 1994, Mitra & Mudgal 1995, Grierson & Long 1999, Das et al. 2002, Ranjan et al. 2013a, Ranjan & Kumar 2014, Ghosh & Mallick 2014) and taxonomic revisionary studies of genera at regional, national and global level have also been consulted (Cowan 1932, Deb & Mallick 1968, Subramanyam & Sharma 1968, Ridsdale 1978, Deb & Krishna 1982,

Deb & Roy 1983, Deb & Dutta 1984, 1990, Deb & Bhattacharjee 1985, Deb 1986, 1989, Deb & Gangopadhyay 1989, 1991, Husain & Paul 1989, Deb & Mondal 1997, Dutta & Deb 2004).

All the species and infra-species have been enumerated alphabetically along with habit, habitat, altitude, flowering & fruiting, distribution in India and other countries and their status. In addition to endemic and rare taxa, plants of ornamental, economic, medicinal and other uses are also discussed.

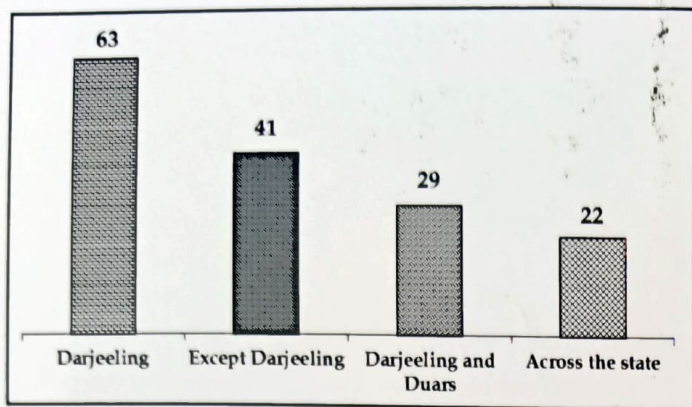
RESULT AND DISCUSSION

155 taxa including 144 species, 1 subspecies and 10 varieties have been reported from the political boundary of West Bengal. Distribution of taxa across the state from southern plains to northern Himalayan range are given in Table 1. It is estimated that maximum concentration of species are in Darjeeling Himalayan range (63 taxa, 40.64%) followed by taxa distributed across the state except Darjeeling (41, 26.45%). 29

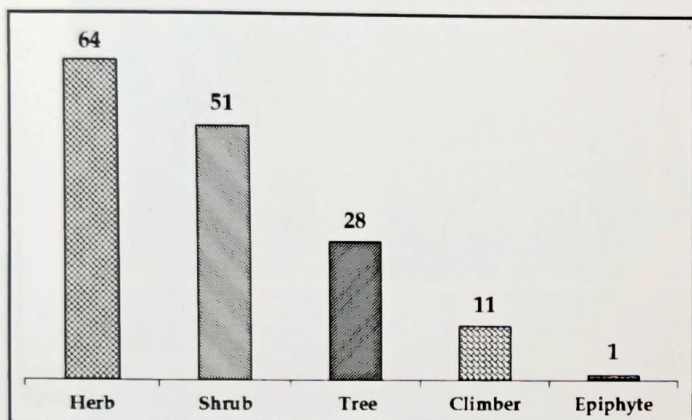


Plate 1

A. *Benkara malabarica* (Lam.) Tirveng. B. *Hedyotis scandens* Roxb. C. *Neolamarckia cadamba* (Roxb.) Bosser. D. *Mitragyna parvifolia* (Roxb.) Bosser. E. *Gardenia gummifera* L.f. F. *Morinda citrifolia* L. G. *Catunaregam spinosa* (Thunb.) Tirveng. H. *Ophiorrhiza fasciculata* D. Don.



Text-figure 2. Distribution of taxa of family Rubiaceae in West Bengal.



Text-figure 3. Distribution of life forms of family Rubiaceae in West Bengal.

taxa (18.70%) are restricted to Darjeeling and Duars (*terai*) areas, while 22 taxa (14.19%) are distributed across the state including Darjeeling (Text-figure 2). *Ophiorrhiza* L. (13 species) is a dominant genus followed by *Hedyotis* L. and *Wendlandia* Bartl. ex DC. with 08 species each. An analysis of habit of plants shows that dominant life-form is annual and perennial herbs (64) followed by shrubs (51), trees (28), lianas/climbers (11) and epiphyte (1) (Text-figure 3). Some of the commonly occurring rubiaceaceous species are illustrated here in order to facilitate their easy identification (Plate 1, figures A-F, Plate 2, figures A-H).

Ixora athroantha Bremek. and *Wendlandia sikkimensis* Cowan, endemic at global level, are found in lower hills of *terai* and Darjeeling Himalayan areas, while *Chassalia staintonii* (H. Hara) Deb & Mondal, *Luculia grandifolia* Ghose, *Psydrax kingii* (Hook. f.) Bridson & Spring. and *Porterandia sikkimensis*

(Hook.f.) Deb & M. Gangop. are endemic to West Bengal for India and share their distribution with neighbouring countries. It is supposed that higher endemism in Rubiaceae is due to localized area of occurrence, size of occurrence and less population.

Flora includes *Hedyotis brunonis* Merr., *Oldenlandia scabra* (Wall. ex Kurz) Kuntze, *Neanotis oxyphylla* (Wall. ex G. Don) W.H. Lewis and *Ophiorrhiza lurida* Hook.f. which are rare species listed in Red Data Book of Indian plants (Nayar & Sastry 1987-90). In addition, *Chassalia staintonii* (H. Hara) Deb & Mondal, *Hedyotis brunonis* Merr., *Mitragyna rotundifolia* (Roxb.) Kuntze, *Porterandia sikkimensis* (Hook. f.) Deb & M. Gangop., *Prismatomeris tetrandra* (Roxb.) K. Schum., *Psydrax glabra* (Blume) Deb & M. Gangop. and *Psydrax kingii* (Hook.f.) Bridson & Spring. are also rare due to localized distribution in eastern Himalaya.

Monotypic genera (*Spermadictyon* Roxb., *Tamilnadia* Tirveng. & Sastre and *Khasiaclunea* Ridsdale), which are confined to India or rarely extended up to south-east Asia, are also reported from West Bengal. *Khasiaclunea* was reported from Khasi hills (Ridsdale 1978) and considered endemic to India but recently it is reported from Bhutan (Ranjan et al. 2013b).

Cinchona sp. (quinine) and *Carapichea* sp. (ipecac) are grown in hilly areas of the state. Other valuable wild species growing in state and are used in various ways: timber (*Haldina cordifolia* (Roxb.) Ridsdale, *Himalrandia tetrasperma* (Wall. ex Roxb.) T. Yamaz. and *Mitragyna parvifolia* (Roxb.) Korth.); tannin and dye (*Rubia manjith* Roxb., *R. sikkimensis* Kurz, *Hedyotis herbacea* L., *Luculia gratissima* (Wall.) Sweet, *Morinda citrifolia* L., *Mussaenda roxburghii* Hook.f. and *Hymenodictyon orixense* (Roxb.) Mabb.); edible (*Neolamarckia cadamba* (Roxb.) Bosser, *Ixora coccinea* L.) and medicinal (*Paederia foetida* L.).

In addition, Rubiaceae provide large numbers of ornamental/garden plants growing in the gardens which are: *Canthium coromandelicum* (Burm. f.) Alston, *Catesbaea spinosa* L., *Chiococca alba* (L.) Hitchc., *Cinchona calisaya* Wedd., *Cyclophyllum barbatum*

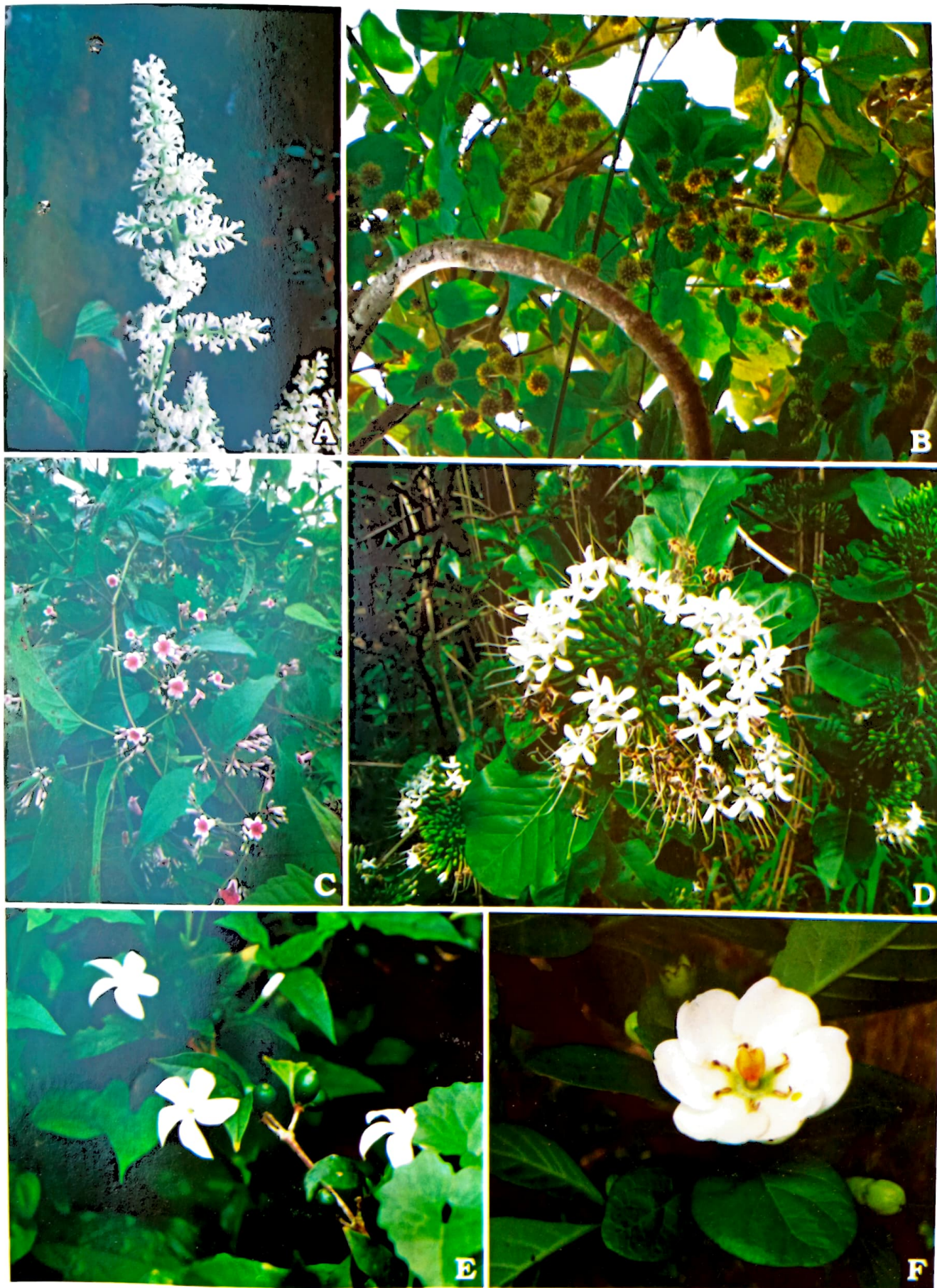


Plate 2

A. *Wendlandia tinctoria* (Roxb.) DC. B. *Uncaria sessilifructus* Roxb. C. *Paederia cruddasiana* Prain, L. D. *Pavetta indica* L. E. *Psilanthus bengalensis* (B. Heyne ex Schult.) J.-F. Leroy. F. *Tamilnadia uliginosa* (Retz.) Triveng. & Sastry.

Table 1. Distribution of Rubiaceae in West Bengal (Abbr.: Ass. = Assam, Ar. P. = Arunachal Pradesh, A.P. = Andhra Pradesh, A & N. = Andaman & Nicobar, Bih. = Bihar, H.P. = Himachal Pradesh, J & K. = Jammu & Kashmir, Kar. = Karnataka, Ker. = Kerala, T.N. = Tamil Nadu, Pun. = Punjab, Meg. = Meghalaya, Tri. = Tripura, Ukh. = Uttarakhand, W.B. = West Bengal, Sik. = Sikkim, Nag. = Nagaland, Mah. = Maharashtra; Odi. = Odisha, M.P. = Madhya Pradesh, Man. = Manipur, Miz. = Mizoram, U.P. = Uttar Pradesh, Raj. = Rajasthan, Goa = Goa, Guj. = Gujarat, D & D. = Daman & Diu, Jha. = Jharkhand, Har. = Haryana, Lac. = Laccadives, Amr = America, Afg = Afghanistan, Afr = Africa, Nep = Nepal, Bhu = Bhutan, Myr = Myanmar, Vtm = Vietnam, Mly = Malaysia, Slk = Sri Lanka, Pak = Pakistan, Bng = Bangladesh, Chn = China, Tha = Thailand, Cbd = Cambodia, Ids = Indonesia, Mgr = Madagascar, Bor = Borneo, Php = Philippine, Aus = Australia, Jap = Japan, Kor = Korea.

Sl. No.	Name of taxa	Habit	Flowering & Fruiting	Altitude (m)	Habitat	Distribution		Status
						India	Other Countries	
1.	<i>Argostemma sarmentosum</i> Wall.	Herb	May-October	300-1500	in humid, shady places of dense forest in valleys.	Ukh., Pun., Sik., Ass., Meg., Tri., W.B. (Darjeeling, Jalpaiguri)	Nep, Bhu, Myr, Chn, Vtm, Mly	Common
2.	<i>Argostemma verticillatum</i> Wall.	Herb	July-October	up to 2500	in wet areas of forest	Ukh., H.P., Sik., Meg., Nag., Kar., A.P., Mah., W.B. (Darjeeling)	Bhu	Common
3.	<i>Benkara fasciculata</i> (Roxb.) Ridsdale	Shrub	November-May	150-900	in moist hilly forest	Meg., Ass., W.B. (Cooch Behar, Darjeeling, Jalpaiguri)	Nep, Bhu	Common
4.	<i>Benkara malabarica</i> (Lam.) Tirveng.	Shrub	April-June	up to 150	in barren lateritic waste land	Ker., T.N., A.P., Mah., Kar., Odi., W.B. (Bankura, Midnapore)	Slk	Occasional
5.	<i>Catunaregam longispina</i> (Link) Tirveng.	Shrub	April-August	up to 850	dry mixed forest of <i>terai</i> and lower hill forests	Ukh., Mah., M.P., Kar., T.N., A.P., Miz., A & N., W.B. (Darjeeling)	Nep, Bhu, Pak, Bng, Chn, Myr, Tha, Cbd, Vtm	Occasional
6.	<i>Catunaregam spinosa</i> (Thunb.) Tirveng.	Shrub	March-June	up to 1500	forests at streamside, on hills or hilly slopes, or in valleys	W.B. (Bankura, Darjeeling, Howrah, Murshidabad)	Cbd, Chn, Ids, Laos, Mly, Myr, Nep, Pak, Slk, Tha, Vtm, Afr, Mgr	Common
7.	<i>Cephalanthus tetrandra</i> (Roxb.) Ridsdale & Bakh.f.	Shrub	March-May	up to 700	shady sites at roadsides or stream sides	U. P., Sik., Ass., Meg., Tri., Man., Ar.P., W.B. (Darjeeling)	Bng, Myr, Chn, Tha, Laos, Vtm	Common
8.	<i>Ceriscoides campanulata</i> (Roxb.) Tirveng.	Shrub	March-June	up to 300	forest on river bank	Sik., Ass., Nag., Bih., W.B. (Howrah, Jalpaiguri)	Bhu, Bng, Myr, Tha	Common
9.	<i>Ceriscoides turgida</i> (Roxb.) Tirveng.	Tree	March-June	up to 300	subtropical forest	Ukh., U.P., Raj., Bih., Sik., Ass., Meg., A.P., Ker., W.B. (Howrah)	Bhu, Bng, Myr, Tha, Cbd, Laos, Slk	Common
10.	<i>Chassalia curviflora</i> var. <i>ophioxylodes</i> (Wall.) Deb & B. Krishna	Shrub	April-August	up to 1800	in gullies and valley	Sik., Ar. P., Ass., Meg., Nag., Miz., A.P., Kar., T.N., Ker., A & N., W.B. (Darjeeling, Jalpaiguri, West Dinajpur).	Bhu, Bng, Myr, Slk, Bor, Php	Scarce
11.	<i>Chassalia staintonii</i> (H. Hara) Deb & Mondal	Shrub	April-September	up to 200	along edges of streamlets under shade	Sik., Ass., W.B. (Jalpaiguri)	-	Rare
12.	<i>Dentella repens</i> (L.) J.R. Forst. & G. Forst. var. <i>repens</i>	Herb	July-August	up to 1200	shady, swampy soils of barren fields	India (Throughout)	Chn, Ids, Mly, Myr, Nep, Php, Slk, Tha, Vtm, Aus	Common
13.	<i>Dentella repens</i> (L.) J.R. Forst. & G. Forst. var. <i>serpyllifolia</i> (Wall. ex Craib) Verdc.	Herb	April-November	up to 1200	in moist places	India (Throughout northern & eastern states)	Java	Common
14.	<i>Galium acutum</i> Edgew.	Herb	July-October	1600-2800	in valleys	H.P., Ukh., Sik., W.B. (Darjeeling)	Bhu, Chn, Nep, Pak	Abundant
15.	<i>Galium asperifolium</i> Wall. var. <i>asperifolium</i>	Herb	May-September	1500-2500	in valleys	Sik., Ar. P., Odi, J & K., Sik., A.P., T.N., Kar., W.B. (Darjeeling)	Nep, Chn, Bhu, Afg, Bng, Pak, Slk, Tha	Abundant
16.	<i>Galium asperifolium</i> Wall. var. <i>sikkimense</i> (Gand.) Cufod.	Herb	August-October	700-3900	in mixed cleared forest	Sik., W.B. (Darjeeling)	Bhu, Chn, Nep, Pak	Common
17.	<i>Galium elegans</i> Wall. ex Roxb. var. <i>elegans</i>	Herb	April-May	1300-3000	evergreen forest	J & K., H.P., Ukh., Meg., Sik., Meg., W.B. (Darjeeling)	Bng, Bhu, Chn, Myr, Nep, Pak, Tha	Common

18.	<i>Galium elegans</i> Wall. ex Roxb. var. <i>glabriusculum</i> Req. ex DC.	Herb	July-October	1600-2300	evergreen forest	J & K., H.P., Ar. P., Man., Meg., Ukh., Sik., W.B. (Darjeeling)	Chn, Nep	Rare
19.	<i>Galium hirtiflorum</i> Req. ex DC.	Herb	July- September	1700-3000	shady areas of temperate Himalaya	Ukh., Sik., W.B. (Darjeeling)	Chn, Nep	Less common
20.	<i>Galium hoffmeisteri</i> (Klotzsch) Ehrend. & Schönb.-Tom ex R.R. Mill	Herb	April- September	1800-4500	near streams and <i>Rhododendron</i> forest	Ar. P., Ukh., H.P., J & K., Sik., W.B. (Darjeeling)	Afg, Bhu, Chn, Japan, Korea, Myr, Nep, Pak	Abundant
21.	<i>Gardenia gummifera</i> L.f.	Shrub	March- August	up to 150	in dry deciduous forest	Mah., M.P., Kar., A.P., T.N., Bih., Odi., W.B. (Bankura, Midnapur, Purulia)	-	Common
22.	<i>Gardenia jasminoides</i> J. Ellis	Shrub	April- October	up to 150	in forest	Throughout India; W.B. (Bankura, West Dinajpur)	Cbd, Chn, Jap, N. Kor, Laos, Nep, Pak, Vtm,	Common
23.	<i>Gardenia latifolia</i> Aiton	Tree	March- October	up to 150	in forest	A.P., Kar., M.P., Bih., Odi, W.B. (Bankura, Bardhaman, Durgapur, Midnapur, Purulia)	Bng	Common
24.	<i>Gardenia resinifera</i> Roth	Tree	January- September	up to 150	in forest	Kar., Ker., M.P., Mah., A.P., T.N., W.B. (Bankura, Howrah, Purulia)	Bng, Myr	Common
25.	<i>Haldina cordifolia</i> (Roxb.) Ridsdale	Tree	February- November	up to 1400	dry forest of <i>terai</i> , mixed deciduous forest	Throughout India	Slk, Bhu, Bng, Myr, Chn, Vtm	Common
26.	<i>Hedyotis auricularia</i> L. subsp. <i>auricularia</i>	Herb	April- December	up to 1900	in sal forest	Odi, M.P., Goa, Mah., A.P., Kar., Ker., T.N., W.B. (Darjeeling)	Chn, Slk	Rare
27.	<i>Hedyotis auricularia</i> L. subsp. <i>venosa</i> (Blume) Deb	Herb	September- February	200-500	in forest	Ass., Meg., Tri., W.B. (Darjeeling)	Myr, Ids, Php	Scarce
28.	<i>Hedyotis brunonis</i> Merr.	Herb	February- April	up to 150	silt bed of river bank	Ass., W.B. (Jalpaiguri, Kolkata)	Bng, Myr	Scarce
29.	<i>Hedyotis lineata</i> Roxb.	Herb	May- December	up to 1500	humus moist soil of <i>terai</i> forest	U. P., Ass., Meg., Nag., Tri., Sik., W.B. (Darjeeling)	Nep, Chn, Bng, Myr	Scarce
30.	<i>Hedyotis neesiana</i> Arn.	Herb	March-April	up to 150	forest clearing	A. P., T.N., Ker., Kar., W.B. (Bankura)	Bng, Slk, Myr	Scarce
31.	<i>Hedyotis ovatifolia</i> Cav.	Herb	September- October	up to 300	in sandy forest near streams	Throughout India; W.B. (Bankura, Darjeeling, Kolkata, Purulia)	Myr	Scarce
32.	<i>Hedyotis scandens</i> Roxb.	Herb	September- March	up to 2000	warm broad- leaved forest	Ass., Meg., Ar. P., Miz., Nag., Sik., W.B. (Darjeeling, Jalpaiguri)	Nep, Bhu, Bng, Myr, Chn	Common
33.	<i>Hedyotis tetrandra</i> (Roxb.) Craib	Herb	September- October	up to 150	in sandy gravel and along forest paths in <i>terai</i>	Ar. P., Nag., W.B. (Jalpaiguri)	Myr	Common
34.	<i>Hedyotis vestita</i> R. Br. ex G. Don	Herb	June-October	up to 300	in sal forest, open moist shaded places	Ar. P., Meg., Nag., Man., Sik. And A & N., W.B. (Darjeeling, Jalpaiguri, Kolkata)	Bng, Chn, Myr, Php	Common
35.	<i>Himalrandia tetrasperma</i> (Wall. ex Roxb.) T. Yamaz.	Shrub	May-October	1200-2000	in open slopes and in pine forest	J & K., Ukh., H.P., Sik., Ass., Ar. P., W.B. (Darjeeling)	Bhu, Chn	Scarce
36.	<i>Hymenodictyon flaccidum</i> Wall.	Tree	May-July	up to 1000	on forest slopes, grows on trees as epiphytic expanding roots to soil	U. P., Sik., Meg., Nag., A & N., W.B. (Darjeeling)	Nep, Bhu, Chn, Myr, Bng, Vtm	Less common
37.	<i>Hymenodictyon orixense</i> (Roxb.) Mabb.	Tree	August- February	up to 1000	common in dry deciduous forest	Throughout India except J & K.	Nep, Bhu, Chn, Bng, Myr, Mly, Php, Tha, Vtm, Ids	Less common
38.	<i>Hyptianthera stricta</i> (Roem. ex Schult.) Wight & Arn.	Shrub	April-March	700-1000	nearby streamlets	H.P., Ar.P., Tri., W.B. (Cooch Behar, Darjeeling, Jalpaiguri, Midnapore, Purulia)	Bng, Bhu, Nep, Chn, Myr, Laos, Tha, Vtm	Common

39.	<i>Ixora acuminata</i> Roxb.	Shrub	December- June	up to 950	in terai forest	Sik., Ass., Meg., Man., Miz., Tri., W.B. (Darjeeling, Howrah, Jalpaiguri)	Bng, Bhu	Less common
40.	<i>Ixora athroantha</i> Bremek.	Shrub	April-June	up to 150	undergrowth of moist mixed forest	W.B. (Darjeeling, Jalpaiguri)	-	Rare, Endemic
41.	<i>Ixora balakrishnii</i> Deb & R.C. Rout	Shrub	April- September	up to 200	near streams and mixed forest	A & N., Sik., Ass., Nag., Miz., Meg., W.B. (Darjeeling)	Bng, Myr, Mly	Common
42.	<i>Ixora brachiata</i> Roxb.	Shrub	November- April	up to 200	in dry forest	Kar., Ker., T.N., Mah., Guj., Raj., Goa, D & D., W.B. (Bankura, Midnapore)	-	Less common
43.	<i>Ixora chinensis</i> Lam.	Shrub	All over the year	up to 300	cultivated in gardens	Throughout India; W.B. (Howrah, Darjeeling)	Ids, Mly, Php, Vtm	Common
44.	<i>Ixora coccinea</i> L.	Shrub	All over the year	up to 300	cultivated in gardens	Throughout India; W.B. (Bankura, Darjeeling, Howrah, Jalpaiguri)	Slk, Bng	Common
45.	<i>Ixora finlaysoniana</i> Wall. ex G. Don	Shrub	December	up to 1500	cultivated, also wild in sandy loam soils	Throughout India; W.B. (Bardhaman, Jalpaiguri)	Chn, Vtm, Tha, Php	Less common
46.	<i>Ixora javanica</i> (Blume) DC.	Shrub	February- June	up to 300	cultivated in gardens	Throughout India	Bng, Mly, Myr	Common
47.	<i>Ixora nigricans</i> R.Br. ex Wight & Arn.	Shrub	May- December	up to 150	in shaded places	Ar.P., Ass., Nag., Tri., Meg., Mah., Goa, Kar., Ker., T.N., Odi., W.B. (Jalpaiguri)	Bng, Myr, Mly, Ids	Less common
48.	<i>Ixora pavetta</i> Andr.	Tree	February- April	up to 100	in dry deciduous forest	Raj., U.P., Bih., Odi., Guj., M.P., Kar., Ker., T.N., A.P., W.B. (Birbhum, Howrah, Purulia)	Bng, Slk	Common
49.	<i>Ixora subsessilis</i> Wall. ex G. Don	Shrub	September - October	up to 100	in forest	Ass., Meg., Ar. P., Nag., Man., Miz., Tri., W.B. (Jalpaiguri)	Bng, Chn	Less common
50.	<i>Ixora undulata</i> Roxb.	Tree	February - September	up to 1200	in humid places	U.P., Bih., Odi., Sik., Ar. P., Ass., Tri., Meg., A.P., T.N., W.B. (Throughout)	Bng	Common
51.	<i>Khasiaclunea</i> <i>oligocephala</i> (Havil.) Ridsdale	Tree	January- April	up to 1800	in moist forest	Ass., Meg., Man., Miz., Ar. P., W.B. (Darjeeling)	Bhu	Rare
52.	<i>Knoxia roxburghii</i> subsp. <i>brunonis</i> var. <i>brunonis</i>	Herb	June-January	450-1530	in moist places	Ass., Miz., W.B. (Darjeeling)	Myr, Tha	Rare
53.	<i>Knoxia roxburghii</i> subsp. <i>brunonis</i> var. <i>glauca</i> (W.W. Sm.) R. Bhattacharjee & Deb	Herb	June-January	700-1300	in swampy valleys of hilly region	Ass., Meg., Man., W.B. (Alipurduar)	Nep, Myr, Tha	Rare
54.	<i>Knoxia sumatrensis</i> (Retz.) DC.	Herb	October- February	up to 950	grassy and forested slopes	Bih., Ass., Odi., A.P., Ker., Kar., Mah., M.P., U.P., Man., Nag., W.B. (Throughout)	Bhu, Nep, Slk, Chn, Mly, Myr, Tha, Vtm, Aus, Jap	Common
55.	<i>Kohautia gracilis</i> (Wall.) DC.	Herb	January- September	200-1800	in hilly grass lands	J & K., Pun., U.P., Raj., Mah., M.P., T.N., A.P., Odi., W.B. (Darjeeling, West Dinajpur)	Pak, Nep, Myr, Slk	Common
56.	<i>Lasianthus</i> <i>attenuatus</i> Jack	Shrub	April-June	up to 1500	in hilly forest	Ass., Man., Nag., A & N., W.B. (Darjeeling)	Bng, Chn, Mly, Myr, Nep, Tha, Vtm	Rare
57.	<i>Lasianthus</i> <i>biermannii</i> King ex Hook.f.	Shrub	April- September	1500-2500	in upper hill forest	Sik., Ar.P., Ass., Meg., Nag., Man., Miz., W.B. (Darjeeling)	Chn, Bhu, Myr	Common
58.	<i>Lasianthus</i> <i>lancifolius</i> Hook.f.	Shrub	September- October	up to 1200	in hilly forest	Meg., W.B. (Darjeeling)	Bng, Chn	Common
59.	<i>Lasianthus</i> <i>sikkimensis</i> Hook.f.	Shrub	July-August	600-1000	in hilly forest	Sik., Ar.P., Ass., Meg., Man., W.B. (Darjeeling)	Chn	Rare

60.	<i>Leptodermis lanceolata</i> Wall.	Shrub	September-February	1000-2000	in hilly forest	H.P., Ukh., Sik., Meg., W.B. (Darjeeling)	Nep, Bhu, Pak	Abundant
61.	<i>Luculia grandifolia</i> Ghose	Shrub	July-December	up to 2200	in forest	W.B. (Darjeeling)	Bhu	Rare
62.	<i>Luculia gratissima</i> (Wall.) Sweet	Shrub	October-December	up to 1800	in open forest	Sik., Ass., Ar.P., W.B. (Darjeeling)	Nep, Bhu, Chn, Myr	common
63.	<i>Luculia pinceana</i> Hook.	Shrub	November-April	500-2500	in hilly forest	Ar. P., Ass., Meg., Miz., Nag., W.B. (Darjeeling)	Nep, Bng, Myr, Chn	Rare
64.	<i>Meyna laxiflora</i> Robyns	Tree	August - December	up to 150	in dense forest	Ar.P., Ass., Man., Tri., Bih., T.N., Ker., Kar., Mah., W.B. (Bankura, Bardhaman)	Bng	Less common
65.	<i>Meyna pubescens</i> (Kurz) Robyns	Tree	March-August	up to 180	in forest	M.P., A.P., Bih., Odi., Meg., Ass., Tri., W.B. (Birbhum, Bardhaman, Malda, Midnapore, Purulia)	Myr, Bng	Less common
66.	<i>Meyna spinosa</i> Roxb. ex Link	Tree	April-June	up to 1500	margins of forest	Ass., Meg., Nag., Man., Tri., Ar.P., W.B. (Bankura, Darjeeling (Siliguri), Howrah, Murshidabad)	Bhu, Bng, Tha, Vtm	Common
67.	<i>Mitracarpus hirtus</i> (L.) DC.	Herb	December - February	up to 700	in lower hilly forest	Bih., Odi., Ar.P., Kar., Ker., T.N., W.B. (Jalpaiguri)	Afr, Bhu, Myr, Chn	Common
68.	<i>Mitragyna parvifolia</i> (Roxb.) Korth.	Tree	Throughout the year	up to 150	in dry forest on lateritic red soil	Throughout India	Bng, Myr, Slk	Common
69.	<i>Mitragyna rotundifolia</i> (Roxb.) Kuntze	Tree	October-December	up to 900	in forest	Ass. Tri., Miz., W.B. (Darjeeling)	Chn, Bng, Myr, Tha,	Rare
70.	<i>Morinda angustifolia</i> Roxb.	Tree	April-May	200-1500	in subtropical forest	Jha., Sik., Ass., Meg., Miz., W.B. (Darjeeling, Dinajpur, Howrah, Jalpaiguri, Midnapur)	Nep, Bhu, Bng, Myr, Chn, Tha	Common
71.	<i>Morinda citrifolia</i> L.	Tree	August-March	up to 300	flat land of sparse forest	Lac., A & N., Goa, A.P., Mah., W.B. (Throughout)	Myr, Chn, Jap, Mly, Php, Tha, Vtm, Aus, Slk	Common
72.	<i>Morinda coreia</i> Buch.-Ham.	Tree	April-August	up to 300	in forest, sometimes cultivated	T.N., Ker., Kar., M.P., Raj., Odi., Sik., Ass., W.B. (Bankura, Jalpaiguri, Purulia)	Slk, Bng	Less common
73.	<i>Mussaenda glabra</i> Vahl	Lianas	May-September	300-1500	in forest margins	Kar., Ker., T.N., Meg., Sik., W.B. (Darjeeling, Jalpaiguri)	Nep, Myr, Bhu, Chn	Rare
74.	<i>Mussaenda incana</i> Wall.	Herb	May-August	120-350	in open forest of <i>terai</i>	Sik., Odi., Bih., Ass., Nag., Meg., W.B. (Alipurduar, Darjeeling)	Nep	Common
75.	<i>Mussaenda macrophylla</i> Wall.	Shrub	May-August	150-2500	in secondary forest	Sik., Ar.P., Meg., Miz., Nag., Man., A & N., W.B. (Darjeeling, Howrah)	Bhu, Nep, Myr, Chn, Ids, Mly, Php	Common
76.	<i>Mussaenda roxburghii</i> Hook.f.	Shrub	May-August	100-1000	margins of forest	Sik., Meg., Ar.P., Ass., Man., W.B. (Darjeeling, Howrah, Jalpaiguri)	Nep, Bhu, Bng, Myr	Common
77.	<i>Mussaenda treutleri</i> Stapf	Shrub	May-August	1000-2400	in dense valley forest	Ukh., Sik., Meg., W.B. (Darjeeling)	Nep, Bhu, Chn	Common
78.	<i>Mycetia longifolia</i> (Wall.) Kuntze	Shrub	May-September	up to 600	in moist forest	Ar.P., Meg., Nag., Man., Miz., W.B. (Darjeeling)	Bhu, Chn: Bng, Myr, Mly, Nep	Common
79.	<i>Mycetia stipulata</i> (Hook.f.) Kuntze	Shrub	July-September	1200-1700	in hilly forest	Sik., Man., Ar.P., W.B. (Darjeeling)	Nep	Scarce
80.	<i>Myrioneuron nutans</i> Wall. ex Kurz	Shrub	November-December	up to 250	in lower hilly areas	Meg., Ar.P., Nag., Man., Tri., Miz., W.B. (Darjeeling)	Bng, Bhu, Myr, Chn	Scarce
81.	<i>Neanotis calycina</i> (Wall. ex Hook.f.) W.H. Lewis	Herb	June-October	200-2000	on walls, rock crevices	Throughout India, W.B. (Darjeeling)	Bhu, Nep, Chn, Myr	Occasional

82.	<i>Neanotis gracilis</i> (Hook.f.) W.H. Lewis	Herb	May- November	1000-2000	in boggy places	Meg., Sik., W.B. (Darjeeling)	Bhu, Nep	Occasional
83.	<i>Neanotis hirsuta</i> (L.f.) W.H. Lewis	Herb	August- November	150-1800	damp shady places	U. P., H.P., Sik., Meg., Ar.P., W.B.(Darjeeling)	Nep, Chn, Myr, Ids, Pak, Tha, Vtm	Common
84.	<i>Neanotis ingrata</i> (Wall. ex Hook.f.) W.H. Lewis	Herb	June-October	500-1800	forest margins	Ar.P., Meg., Sik., W.B. (Darjeeling)	Nep, Bhu, Chn	Less common
85.	<i>Neanotis oxyphylla</i> (Wall. ex G. Don) W.H. Lewis	Herb	July-October	up to 1800	marshy and damp areas	Meg., W.B. (Darjeeling)	Bng	Less common
86.	<i>Neanotis wightiana</i> (Wall. ex Wight & Arn.) W.H. Lewis	Herb	June- November	900-3000	grassy field, forest clearings	U.P., Sik., Ass., Ar.P., Meg., Miz., Nag., T.N., W.B. (Darjeeling)	Bhu, Nep, Chn, Bng.	Common
87.	<i>Neohymenopogon parasiticus</i> (Wall.) Bennet	Shrub (Epiphyte)	August- September	up to 2200	epiphytic on <i>Quercus</i> sp., <i>Castanopsis</i> sp.	U.P., Bih., Ar.P., Meg., Miz., W.B. (Darjeeling)	Bhu, Bng, Myr, Sw. Chn, Mly, Nep, Tha, Vtm	Common
88.	<i>Neolamarckia cadamba</i> (Roxb.) Bossler	Tree	May-August	up to 800	planted as avenue tree	Throughout India	Chn, Bhu, Mly, Myr, Slk, Tha, Vtm	Common
89.	<i>Neonauclea griffithii</i> (Hook.f.) Merr.	Tree	November- February	300-1300	in dense moist forest	Sik., Ar.P., Ass., Meg., Man., W.B. (Darjeeling)	Bhu, Myr, Chn	Less common
90.	<i>Oldenlandia affinis</i> (Roem. & Schult.) DC.	Herb	July- November	up to 150	moist humus soil	Man., Bih., U.P., Guj., M.P., Odi., A.P., Mah., Kar., T.N., W.B. (Bankura)	Myr, Mly	Common
91.	<i>Oldenlandia attenuata</i> (Willd.) M.R. Almeida	Herb	July- September	up to 150	in open forest	A.P., T.N., Kar., Bih., U.P., W.B. (Birbhum)	-	Common
92.	<i>Oldenlandia biflora</i> L.	Herb	July- February	up to 150	in open place near water course	Throughout India except Pun., Mah.; W.B. (Bankura, Howrah, Murshidabad)	Bng, Myr, Mly, Php, Chn	Common
93.	<i>Oldenlandia corymbosa</i> (L.) Lam. var. <i>corymbosa</i>	Herb	November- December	up to 150	moist sandy soil	Sik., Tri., Odi., Ker., A & N., W.B.(Darjeeling, Howrah, Hooghly, Kolkata)	Mly, Afr	Common
94.	<i>Oldenlandia corymbosa</i> L. var. <i>caespitosa</i> (Benth.) Verdc.	Herb	July- November	up to 150	in sandy loam	Sik., U.P., Mah., W.B. (Kolkata)	Afr	Common
95.	<i>Oldenlandia corymbosa</i> L. var. <i>linearis</i> (DC.) Verdc.	Herb	May-January	up to 150	in moist places near rice field	Throughout India; W.B. (Darjeeling, Durgapur, Murshidabad, Nadia)	Nep, Afr	Common
96.	<i>Oldenlandia diffusa</i> (Willd.) Roxb.	Herb	September- December	up to 800	in moist humus	Throughout India; W.B. (Darjeeling, Siliguri, Hooghly, Jalpaiguri, Malda, Sunderbans)	Nep, Bhu, Bng, Slk, Ids, Jap	Common
97.	<i>Oldenlandia erecta</i> (Manilal & Sivar.) R.R. Mill	Herb	April- October	750-1500	dry slopes, field margins, paddy- fields	Ker., W.B. (Darjeeling)	Bhu	Common
98.	<i>Oldenlandia herbacea</i> (L.) Roxb.	Herb	All over the year	up to 150	on rocky crevices, roadside	Meg., Nag., Odi., Bih., A.P., Mah., Ker., Kar., T.N., W.B. (Darjeeling)	Slk, Mly, Afr	Common
99.	<i>Oldenlandia pinifolia</i> (Wall. ex G. Don) Kuntze	Herb	September- November	up to 150	in moist places	U.P., Bih., Odi., Man., M.P., A.P., W.B. (Bankura, Darjeeling, Purulia)	Myr, Mly	Scarce
100.	<i>Oldenlandia pumila</i> (L.f.) DC.	Herb	September- February	up to 100	on hilly slopes	Raj., M.P., Mah., Ker., T.N., A & N., W.B. (Howrah, Malda, Murshidabad)	Bng, Myr, Ids, Vtm	Common
101.	<i>Oldenlandia scabra</i> (Wall. ex Kurz) Kuntze	Herb	July-October	up to 100	at the edge of forest	Ass., Ar.P., W.B. (Kolkata)	Myr, Bng	Common
102.	<i>Oldenlandia verticillata</i> L.	Herb	May- September	up to 500	in forest clearing	H.P., U.P., Bih., Sik., Ass., Meg., Ar.P., Nag., Miz., Tri., W.B. (Darjeeling, Jalpaiguri)	Bhu, Nep, Bng, Myr, Mly	Common

103.	<i>Ophiorrhiza fasciculata</i> D. Don	Herb	May-October	1500-2400	on rocky steep moist slopes, broad-leaved forest	Ukh., Sik., Odi., W.B. (Darjeeling)	Nep, Bhu, Chn, Myr, Mly	Common
104.	<i>Ophiorrhiza heterostyla</i> Dunn	Herb	February-May	up to 800	broad-leaved forest	Ar.P., W.B. (Jalpaiguri)	Bhu, Myr	Less common
105.	<i>Ophiorrhiza lurida</i> Hook.f.	Herb	May-September	300-1500	damp shady places on hilly slopes	Sik., Man., Tri., W.B.(Darjeeling)	Chn	Less common
106.	<i>Ophiorrhiza mungos</i> L.	Herb	July-December	up to 1800	in forest	Sik., Ar.P., Ass., Meg., Nag., Man., Miz., Tri., T.N., Ker., Kar., A & N., W.B. (Darjeeling)	Nep, Chn, Myr, Java, Slk, Tha.	Scarce
107.	<i>Ophiorrhiza nutans</i> C.B. Clarke ex Hook.f.	Herb	May-September	up to 2500	on damp soil near streams on hilly slopes	Sik., W.B. (Darjeeling)	Nep, Chn, Myr	Scarce
108.	<i>Ophiorrhiza ochroleuca</i> Hook.f.	Herb	March-November	up to 1950	broad-leaved forest	Sik., Ar.P., Ass., Meg., Nag., Man., Miz., W.B.(Darjeeling)	Bhu, Chn, Myr	Scarce
109.	<i>Ophiorrhiza pectinata</i> Arn.	Herb	June-December	910-1500	in hilly forest	Ker., T.N., W.B. (Darjeeling)	Slk	Scarce
110.	<i>Ophiorrhiza repens</i> (Wall. ex G. Don) Bennet	Herb	All over the year	420-2250	on sandy damp soil	Ar.P., Ass., Meg., W.B. (Jalpaiguri)	Bhu, Myr	Scarce
111.	<i>Ophiorrhiza rosea</i> Hook.f.	Herb	May-September	1200-3040	moist broad-leaved forest	Sik., Nag., W.B. (Darjeeling)	Bhu, Chn, Myr, Tha, Mly	Scarce
112.	<i>Ophiorrhiza rugosa</i> Wall.	Herb	March-November	1700-3400	in forest	Bih., Sik., Odi., A.P., T.N., Mah., Goa, A & N., W.B. (Darjeeling)	Nep, Bhu, Chn, Bng, Myr, Tha, Mly, Ids, Slk	Common
113.	<i>Ophiorrhiza succirubra</i> King ex Hook.f.	Herb	July-October	up to 2400	broad-leaved forest	Sik., Ass., Ar.P., Nag., Meg., Miz., Tri., W.B. (Darjeeling)	Bhu, Chn, Myr	Common
114.	<i>Ophiorrhiza thomsonii</i> Hook.f.	Herb	May-November	1200-2100	moist places in broad-leaved forest	Sik., Man., W.B. (Darjeeling)	-	Common
115.	<i>Ophiorrhiza treutleri</i> Hook.f.	Herb	May-October	300-2400	on moist shady places	Meg., Sik., W.B. (Darjeeling, Jalpaiguri)	Nep, Myr	Scarce
116.	<i>Paederia cruddasiana</i> Prain	Climber	June-November	100-1900	open forest	Meg., W.B. (Darjeeling, Jalpaiguri)	Bng, Myr, Chn, Bhu, Nep, Tha	Common
117.	<i>Paederia foetida</i> L.	Climber	August-October	up to 1000	moist open forest	Sik., Ar.P., Ass., Meg., Miz., Nag., Man., W.B. (Throughout)	Nep, Bhu, Bng, Myr, Tha, Chn, Jap	Common
118.	<i>Pavetta indica</i> L. var. <i>indica</i>	Shrub	April-November	up to 1200	in primary forest	Ass., Odi., A.P., T.N., Ker., Lac., Kar., W.B. (Bankura, Darjeeling, Hooghly, Jalpaiguri)	Bng, Slk, Nep	Common
119.	<i>Pavetta indica</i> L. var. <i>glabrescens</i> (Kurz) Deb & R.C. Rout	Shrub	May-June	250-1000	in moist lowland primary forest	Ar.P., Ass., Man., Meg., Miz., Nag., Tri., Sik., Odi., W.B. (Throughout)	Nep, Bhu, Chn, Bng, Myr	Common
120.	<i>Pavetta indica</i> L. var. <i>tomentosa</i> (Roxb. ex Sm.) Hook.f.	Shrub	May-July	150-1000	in forest	Throughout India	Nep, Chn, Myr, Mly, Tha	Common
121.	<i>Porterandia sikkimensis</i> (Hook. f.) Deb & M. Gangop.	Shrub	April-September	300-1000	lower hill forest	W.B. (Darjeeling)	Nep	Rare
122.	<i>Prismatomeris tetrandra</i> (Roxb.) K. Schum.	Shrub	June	up to 500	in hilly forest	Ass., W.B. (Darjeeling)	Bng, Chn, Myr, Tha, Vtm, Php	Scarce
123.	<i>Psilanthus bengalensis</i> (B. Heyne ex Schult.) J.-F. Leroy	Shrub	February-June	150-600	in disturbed forest	Ar.P., Ass., Meg., Sik., Odi., Raj., Kar., W.B. (Darjeeling, Jalpaiguri)	Nep, Bhu, Bng, Myr, Ids	Common
124.	<i>Psychotria calocarpa</i> Kurz	Shrub	June-July	800-1700	in forest on hilly slopes	Sik., Ar.P., Ass., Meg., Nag., Miz., Man., Tri., W.B. (Darjeeling)	Nep, Bhu, Bng, Myr, Mly, Ids, Chn	Common
125.	<i>Psychotria denticulata</i> Wall.	Shrub	June-July	150-500	in terai forest	Sik., Ass., Ar.P., Nag., Man., W.B. (Darjeeling)	Nep, Bhu, Bng, Myr, Mly	Common

126.	<i>Psychotria erratica</i> Hook.f.	Shrub	May-July	1000-2400	evergreen broad-leaved forest in hilly areas	Sik., Meg., Ar.P., W.B. (Darjeeling, Jalpaiguri)	Bhu, Chn, Bng, Nep	Common
127.	<i>Psychotria symplocifolia</i> Kurz	Shrub	June-August	1200-2300	in hilly forest	Sik., Ass., Meg., Nag., Miz., A & N., W.B. (Darjeeling)	Myr, Tha, Chn	Common
128.	<i>Psydrax dicoccos</i> Gaertn.	Tree	January-November	up to 150	in dry deciduous forest	T.N., Ker., Kar., Odi., Bih., Tri., Ass., Meg., Sik., W.B. (Bankura)	Slk, Mly, Myr, Chn	Scarce
129.	<i>Psydrax glabra</i> (Blume) Deb & M. Gangop.	Tree	September-March	up to 500	lower hill forest	Ass., W.B. (Darjeeling, Jalpaiguri)	Myr	Scarce
130.	<i>Psydrax kingii</i> (Hook.f.) Bridson & Spring.	Tree	May - September	up to 600	in hilly forest	W.B. (Darjeeling)	Nep	Scarce
131.	<i>Richardia scabra</i> L.	Herb	August-February	up to 1000	in wastelands	Bih., A.P., T.N., Kar., Ker., Odi., Ass., Meg., W.B. (Jalpaiguri)	Chn, Amr	Scarce
132.	<i>Rubia angustisissima</i> Wall. ex G. Don	Climber	September-November	up to 900	lower hilly areas	Bih., U.P., Kashmir, Sik., W.B. (Darjeeling)	Myr	Less common
133.	<i>Rubia hispidicaulis</i> D.G. Long	Climber	June-August	2400-3000	in broad-leaved forest	Sik., W.B. (Darjeeling)	Bhu	Common
134.	<i>Rubia manjith</i> Roxb.	Climber	June-October	700-3600	in forest margins	Ar.P., Sik., W.B. (Darjeeling)	Nep, Bhu, Chn, Pak	Common
135.	<i>Rubia sikkimensis</i> Kurz	Climber	October-June	up to 1000	in broad-leaved forest	Sik., Ar.P., Ass., Nag., Man., W.B. (Darjeeling, Jalpaiguri)	Bhu	Scarce
136.	<i>Rubia wallichiana</i> Decne.	Climber	April-September	2000-4000	in cool broad-leaved forest	Sik., W.B. (Darjeeling)	Chn, Bhu, Nep	Common
137.	<i>Spermacoce alata</i> Aubl.	Herb	August-October	up to 1500	in disturbed forest, wastelands	Throughout India, W.B. (Darjeeling, Jalpaiguri)	Aus, Mad	Common
138.	<i>Spermacoce exilis</i> (L. O. Williams) C. D. Adams ex W. C. Burger & C. M. Taylor	Herb	August-October	up to 300	in disturbed humid places at lower elevations	Throughout India, W.B. (Cooch Behar, West Dinajpur)	Chn, Ids, Nep, Slk, Vtm, Afr, Aus, C. America, N. America	Common
139.	<i>Spermacoce hispida</i> L.	Herb	September-October	up to 100	on open sandy lands at lower elevations	Throughout India	Chn, Ids, Mly, Php, Slk, Vtm, Aus	Common
140.	<i>Spermacoce ocymoides</i> Burm. f.	Herb	July-October	up to 1200	in grassy field	Throughout India, W.B. (Darjeeling)	Afr, Mly	Common
141.	<i>Spermacoce pusilla</i> Wall.	Herb	July-December	100-1500	in grasslands and grassy slopes at lower elevations	Throughout India, W.B. (Bankura, Bardhaman, Birbhum, Purulia)	Chn, Bhu, Mly, Myr, Nep, Pak, Php, Slk, Tha, Vtm	Common
142.	<i>Spermadictyon suaveolens</i> Roxb.	Shrub	October-December	up to 1500	in forest near river banks	Wild and cultivated in J & K., Sik., W.B.	Bng, Bhu, Nep, Chn, Pak	Scarce
143.	<i>Tamilnadia uliginosa</i> (Retz.) Tirveng. & Sastre	Tree	April-June	150-500	in <i>terai</i> forest	Sik., Ass., Ker., W.B. (Bankura, West Dinajpur, Darjeeling, Howrah)	Bng, Myr, Tha, Cbd, Laos, Vtm, Slk	Scarce
144.	<i>Tarennoidea wallichii</i> (Hook.f.) Tirveng. & Sastre	Tree	May-October	400-2200	in humid broad-leaved forest	Ar.P., Meg., Ass., Man., Nag., Tri., Miz., W.B. (Darjeeling, Jalpaiguri)	Bng, Bhu, Myr, Tha, Ids, Mly, Chn, Php	Common
145.	<i>Uncaria macrophylla</i> Wall.	Lianas	October-February	200-700	lower hill forest	Sik., Ass., Meg., Man., Nag., Ar.P., W.B. (Darjeeling, Jalpaiguri)	Bhu, Bng, Myr, Chn, Tha, Laos, Vtm	Common
146.	<i>Uncaria scandens</i> (Sm.) Hutch.	Lianas	April-February	100-1500	in sparse forest, broad-leaved lower hill forest	U.P., Sik., Ass., Meg., Ar.P., Tri., W.B. (Darjeeling)	Bhu, Nep, Myr, Chn, Tha, Laos, Vtm	Common
147.	<i>Uncaria sessilifructus</i> Roxb.	Lianas	October-April	300-1500	moist broad-leaved forest, in valleys	T.N., Bih., Sik., Ass., Meg., Tri., Miz., Man., Nag., W.B. (Cooch Behar, Darjeeling, Jalpaiguri)	Nep, Bhu, Bng, Myr, Chn, Vtm, Laos	Common
148.	<i>Wendlandia budleoides</i> Wall. ex Wight & Arn.	Tree	February-April	700-1300	in valleys and <i>terai</i>	Throughout India; W.B. (Darjeeling, Jalpaiguri)	Bhu, Bng, Myr, Nep, Chn	Common

149.	<i>Wendlandia coriacea</i> (Wall.) DC.	Tree	February-April	450-900	on slopes in lowland valleys	Sik., Odi., M.P., W.B. (Darjeeling)	Bhu, Nep	Common
150.	<i>Wendlandia heynei</i> (Schult.) Santapau & Merchant	Tree	March-May	300-1200	subtropical forest	Throughout India except Ass.; W.B. (Darjeeling, Hooghly, Purulia)	Nep, Pak	Common
151.	<i>Wendlandia pendula</i> (Wall.) DC.	Shrub	November-January	600-1300	in ravines of moist forest	Man., Nag., Miz., W.B. (Jalpaiguri)	Nep, Bhu, Chn, Myr	Scarce
152.	<i>Wendlandia puberula</i> DC.	Shrub	April-August	600-2000	scrub and in dry valleys	J & K., Sik., W.B. (Darjeeling)	Nep, Bhu, Myr	Common
153.	<i>Wendlandia sikkimensis</i> Cowan	Tree	February	300-900	in <i>terai</i> belt	W.B. (Darjeeling)	-	extremely rare Endemic
154.	<i>Wendlandia tinctoria</i> (Roxb.) DC.	Shrub	February-April	200-2800	in open forest of sub hilly tracts, in ravines	Throughout India; W.B. (Darjeeling, Durgapur)	Nep, Myr, Tha, Chn, Bng	Common
155.	<i>Wendlandia wallichii</i> Wight & Arn.	Shrub	October-June	900-1500	in humid forest	Sik., Meg., Ass., Ar.P., Man., Nag., Miz., Tri., W.B. (Darjeeling)	Bhu, Bng, Myr	Common

(G. Forst.) N. Hallé & J. Florence, *Gardenia coronaria* Buch.-Ham., *Hamelia patens* Jacq., *Ixora barbata* Roxb. ex Sm., *I. cuneifolia* Roxb., *Mussaenda corymbosa* Roxb., *M. erythrophylla* Schumacher & Thonn., *M. philippinensis* Merr., *Nauclea orientalis* (L.) L., *Neolamarckia macrophylla* (Roxb.) Bosser, *Pentas lanceolata* (Forssk.) Deflers, *Pogonopus exsertus* (Oerst.) Oerst., *Portlandia grandiflora* L., *Rondeletia odorata* Jacq., *Tarenna asiatica* (L.) Kuntze ex K. Schum. and *T. disperma* (Hook. f.) Pit.

CONCLUSION

Enumeration of Rubiaceae in West Bengal gives an overview of taxa occurring therein. It will be useful for prioritizing the species for conservation. Taxa which are under different categories of threats or endemic to state or region need to be conserved urgently. Rubiaceous taxa are sensitive to ecological alteration and the factor like restricted distribution has enhanced the probability of extinction (Davis et al. 2009). Some taxa from the political boundary of state have very less or even in some case no representation at CAL and other consulted herbaria revealed that collection of such taxa is urgently required for conservation status assessment.

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