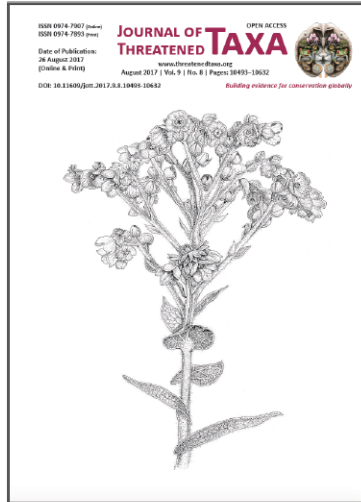


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ARTICLE

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Savita Sanjaykumar Rahangdale & Sanjaykumar Ramlal Rahangdale

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Abstract: Bhimashankar Wildlife Sanctuary (BWS) is located on the crestline of the northern Western Ghats in Pune and Thane districts in Maharashtra State. It was notified in October 1985 towards conservation of the state animal of Maharashtra, the Giant Squirrel *Ratufa indica* ssp. *elphinstonii*. Although an important protected area in the Western Ghats, due to the lack of a comprehensive report, an assessment of floristic diversity of BWS was done from 2009 to 2016. The results revealed that forest types and microhabitats are diverse in the sanctuary. Major forest types are western subtropical broad leaved hill forest to moist deciduous types with a few included small patches of evergreen forests. The rich flora of the sanctuary is represented by a total of 1,142 angiosperm taxa at species and infraspecific level spread over 619 genera and 124 families. Of these 1,094 taxa are wild, which belong to 118 families and 586 genera. Rest of the taxa are planted (34), and 14 introduced. The taxa are classified as per the APG IV. The wild taxa include 20 magnolids, 285 monocots, one Ceratophyllales and 788 eudicots. Out of these, 217 taxa are Indian endemics; which comprise about 19.84% of the total number of wild taxa (1,094) in the sanctuary and 5.04% of total Indian endemics (4,303). Total 53 taxa are under different threat categories according to IUCN. BWS harbours a significant extent of angiosperms in a very small geographic area.

Keywords: Angiosperm, APG IV, diversity, endemic flora, forest types, microhabitats.

Abbreviations: BSI = Botanical Survey of India; BWS = Bhimashankar Wildlife Sanctuary; DD = Data Deficient; EN = Endangered; IUCN = International Union for Conservation of Nature & Natural Resources; LC = Least Concern; LR = Low Risk; VU = Vulnerable; WG = Western Ghats.

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Author Contribution: Both the authors have equal contribution in the present study.

For Marathi abstract see end of this article.

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INTRODUCTION

The Bhimashankar Wildlife Sanctuary (BWS) is one of the five wildlife sanctuaries located along the northern Western Ghats in Maharashtra. It was notified on 10 October 1985 by the Government of Maharashtra State (Governor of Maharashtra 1985) as a step to conserve the state animal, the Giant Squirrel *Ratufa indica* spp. *elphinstonii*. The sanctuary is named after the Bhimashankar temple (one of the 12 jyotir-linga (self emerged) Shiva temples in the country) located inside the sanctuary and surrounded by a sacred grove. It is an important pilgrimage as well as a famous tourist destination.

It is reported to inhabit more than 529 faunal species including the Giant Squirrel, Leopard, Golden Jackal, Mouse Deer, among others; about 20% of the mammals reported are in Schedule-1 of Wildlife Protection Act (Anonymous 2009). It has also been identified as an Important Bird Area (IBA) by BirdLife International as it harbours globally threatened species like, Greater Spotted Eagle, Nilgiri Wood Pigeon, Malabar Parakeet and White-backed Vultures.

Botanically, the area of the sanctuary has not yet been completely explored. Janardhanan (1966) while studying the flora of Khed Taluka covered a part of BWS, especially the part falling in the Khed Taluka of Pune District. He reported a total of 838 taxa of angiosperms from Khed comprising 315 taxa from the area covered within the sanctuary. He further reported some medicinal plants from the area, especially from Bhorgiri and the temple area of the sanctuary (Janardhanan 1963 & 1965). Mahabale (1987) in the Gazetteer of Maharashtra State mentioned only four types of vegetation and cited the work by Janardhanan. The Gazetteer did not provide any list of plants of Bhimashankar, unlike the other areas like Katraj Ghat and Purandhar in the district; because the work done so far was not comprehensive to cover the complete area of the sanctuary. It emphasized a need of comprehensive exploration of the plants of BWS. Pande (2005), in the profiles of the national parks and wildlife sanctuaries of Maharashtra State, enumerated 291 plant taxa in BWS with the acceptance that their aim was not to make an inventory of the sanctuary and the records of flora are based on casual documentation. Therefore, though it is an important document it is not a comprehensive one to be considered as the flora of BWS. Meanwhile Jagdale (1994) studied the ecology of the area and concluded that the ecosystem of the sanctuary is quite unique and very fragile, so it requires priority for conservation and minimization of

local use of natural resources. Upadhye et al. (1994) documented some ethno-medicinal plants from the region. Even in the recent Gazetteer (Naik 2006), there is no citation of vegetation or any floristic account from the sanctuary. Watve (2013) studied the rocky plateaus of western Maharashtra and reviewed the ephemeral flora occurring on them, covering two localities, namely, Ahupe and Kondhaval within the sanctuary. A single plant, *Chukrasia tabularis* A. Juss. was reported as a northernmost extended distribution from the sacred grove of Ahupe by Kulkarni et al. (2014), emphasizing the importance of sacred groves as conservatory of plants. This species was already recorded by Pande (2005) to occur in the sanctuary area, but without a specimen. Thus, in this scenario the report by Pande (2005) is found to be a significant document but not a comprehensive one. The authors of the present study explored Pune District including BWS before this work for diversity and distribution of medicinal plants (Rahangdale & Rahangdale 2012) and pteridophytes (Rahangdale 2013). Thus, BWS is poorly explored in terms of angiosperm floristics. The strategic plan of MoEFCC (Anonymous 2012) has its second objective for conservation of existing forests, wildlife and water resources and survey of various areas for identification of new species; which in turn is in accordance with the National Biodiversity Action Plan's objective 4.7; emphasizing on the documentation of the biological wealth of India (Arora & Bhatt 2008).

Therefore, it was a need of the time to bring on record the complete flora of the sanctuary so that, it would be a baseline for designing plans for conservation, management of resources and anthropocentric developments within and around the sanctuary. Considering the above facts, an exploration of BWS was undertaken to bring out a complete record of floristic diversity of the sanctuary.

MATERIALS AND METHODS

Study area

The BWS is spread over four forest ranges in two districts—Pune (Khed and Ghodegaon ranges) and Thane (Karjat and Alibaug ranges). It covers an area of 130.78km² from eight villages in Pune District and reserve forest along the west slopes of the crestline in Thane District between 19.0226361–19.2305555 N & 73.4827777–73.6308333 E. The elevation ranges between 340m on the west side and 1,208m above mean sea level at the Nagphani (Hindi: Snake's Hood) point. Two important rivers of the state, Bhima and Ghod, which are tributaries

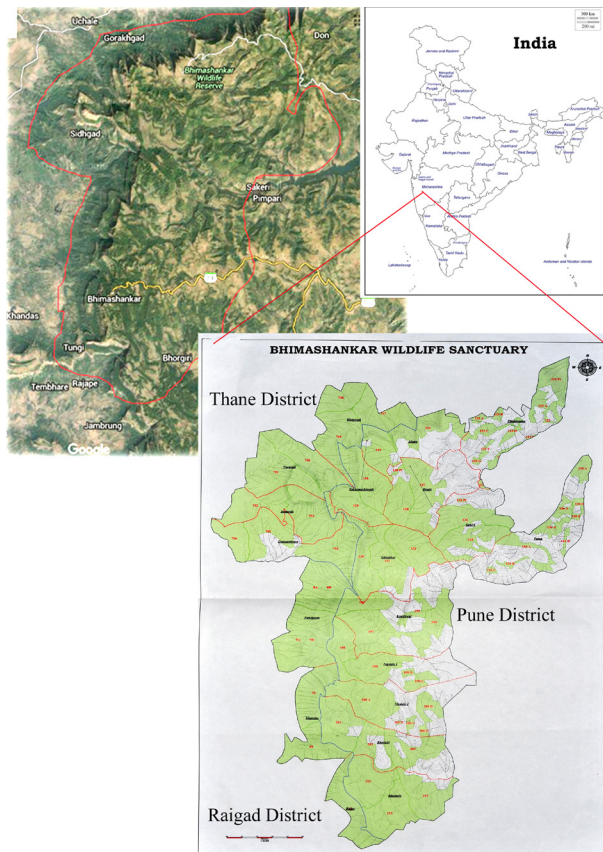


Figure 1. Bhimashankar Wildlife Sanctuary (BWS): Location in India, Topography and map. (Green cover shows reserve forests in the sanctuary)

of river Krishna, originate in the sanctuary.

It has a high unbroken ridge of the Western Ghats (WG) composed of basaltic lava passing in a north-south direction. The topography includes spurs of the WG running towards the eastern plains and steep slopes and valleys towards the west in the Konkan region (Fig. 1). Pande (2005) identified hill slopes, ridges, peaks, spurs, valleys, pools, rocky plateaus, cliffs, gorges, ravines, rocky and sandy stream basins as important physical features. These physical features make the sanctuary a complex of microhabitats.

Data collection

The study materials comprise the flora of BWS. Some information was also taken from previously collected specimens and related documentation about the sanctuary as preliminary work done during the visits to the sanctuary as the authors were extending their services to the department of forests as visiting botanists to Ghod Forest Division. The surveys were undertaken to cover all seasons and the whole area from June 2009 to September 2016. The surveys were extensive and critical

to record the information. Identification of specimens was done in the field using different floras (Cooke 1958; Almeida 1996–2009; Sharma et al. 1996; Singh & Karthikeyan 2000; Singh et al. 2001; Potdar et al. 2012).

Laboratory studies

Only unique specimens were collected for confirmation of identity and deposition in the herbarium. Specimens were processed for mounting following standard protocol as per Jain & Rao (1977), and voucher specimens were deposited in the herbarium of Botany Department, B.J. College, Ale. The identity of the specimens collected was confirmed by comparison with the specimens at BSI, Pune; previously confirmed specimens by SSR during her doctoral study and the project works, which are also deposited in the herbarium of Botany Department, B.J. College, Ale having more than 3000 specimens of about 2,000 taxa and AHMA, Pune. Systematic position and accepted names were checked using The Plant List (2017), while the status was checked from IUCN (2016) website. The classification system followed is APG IV (APG 2016) and all the taxa are arranged as per the system; endemism was also checked following Singh et al. (2015). Documentation of vegetation and forest types was done using the types and subtypes given by Champion & Seth (1968) with a few variations. Microhabitats, especially on the plateaus were also recorded following the types given by Watve (2013), and Rahangdale & Rahangdale (2014).

RESULTS

Results of the study are presented under two subheads: (i) vegetation cover, and (ii) floristic diversity. The vegetation cover comprises overall vegetation, forest types, their distribution in the sanctuary and composition of each type with details of vegetation stratification; while the complete angiospermic diversity is presented under the second subhead. The taxa (genera, species and taxa at infraspecific level) are alphabetically listed under taxonomic treatment of families according to APG IV. The serial numbers of the families in the system are also given. For sake of ease the subfamilial grouping is retained in Fabaceae, Acanthaceae and Apocyanaceae.

Vegetation cover

The major vegetation cover is of western subtropical broad leaved hill forests described by Champion & Seth (1968), also termed as montane broad leaved semi-evergreen forest covering most of the area of BWS. Due

to undulating physiographic features this forest is not uniform and shows great variations. The vegetation is divided into evergreen, semi-evergreen and moist deciduous forests. The evergreen forests are in small patches especially at the point of origin of the rivers Bhima and Ghod, and the forest patch of the sacred grove near the temple. Moist semi-evergreen and moist deciduous forests are located on the western slopes, and at the edges of plateaus in the east. Grass covered rocky slopes and plateaus are also present supporting shrubby vegetation along the edges and surrounded by semi-evergreen and moist deciduous forests. Near virgin or climax forests are located in sacred groves conserved by local people in the name of god.

a. Evergreen forests

Evergreen forests of climax type are located at Gupt-Bhimashankar, i.e., a patch just near the temple and around the hill on which the old Forest Rest House is located. It is stratified into two canopies and ground vegetation. The composition of the top canopy is mainly of *Bilshmi media dalzellii*, *Mangifera indica*, *Olea dioica*, *Syzygium cumini*, *Carallia brachiata*, *Myristica malabarica*, *Diospyros malabarica*, *D. montana*, *D. sylvatica* and *Symplocos racemosa*.

The second canopy is constituted by *Actinodaphnae gullavara*, *Cinnamomum nitidum*, *Dimorphocalyx glabellus*, *Ixora brachiata*, *I. nigricans*, *Litsea josephii*, *Mallotus aureopunctatus*, *M. resinus* and *Memecylon umbellatum*. The trees of the top and second canopy are climbed upon by *Piper hookeri*, *P. trichostachyon*, *Stephania japonica*, *Ancistrocladus heyneanus* and *Premna obtusifolia* var. *pubescens*.

The ground vegetation in this type is better represented only in the openings, along streams and margins, which is constituted by *Achyranthes coynei*, *Leucas deodikarii*, *Rhinacanthus nasutus*, *Ecbolium ligustrinum*, *Asystasia dalzelliana*, *Paracaryopsis coelestina*, *Canscora diffusa* var. *diffusa*, *Senecio bombayensis*, *Cyathocline purpurea*, *Rubia cordifolia*, *Smithia bigemina*, *S. setulosa*, *S. purpurea*, *Vigna dalzelliana*, *Desmodium ritchiei*, *Impatiens dalzellii*, *I. pulcherrima*, *Sida rhombifolia*, *Habenaria foliosa*, *Peristylus lawii*, *Curcuma pseudomontana*, *Chlorophytum tuberosum*, *Zingiber neesatum* and *Arisaema murrayi*.

b. Semi-evergreen forests

Semi-evergreen forests are noted between the elevation of 700m and 900m on both the east and west slopes of the main crestline and around rocky open plateaus at Kondhaval, Bhatti, Ahupe and Sakeri

villages. This type of forests is mainly composed of *Caryota urens*, *Ficus racemosa*, *Firmiana colorata*, *Garcinia indica*, *Mangifera indica*, *Mallotus philippensis*, *Memecylon umbellatum*, *Olea dioica*, *Sterculia guttata*, *Syzygium cumini* and *Xantolis tomentosa*. The second canopy is formed by *Atalantia racemosa*, *Callicarpa tomentosa*, *Dimorphocalyx glabellus*, *Litsea deccanensis*, *L. ghatica*, *L. josephii*, *Hymenodictyon obovatum*, *Ixora brachiata*, *Mallotus stenanthus* and *Rubus ellipticus*. Common climbers in this type include *Cyclea peltata*, *Diploclisia glaucescens*, *Gnetum ula*, *Oxyceros rugulosus*, *Piper hookeri*, *P. trichostachyon*, *Gymnema cuspidata*, *Stephania japonica*, *Salacia macrosperma* and *Tinospora sinensis*. The ground space is occupied by *Curcuma angustifolia*, *C. decipiens*, *C. pseudomontana*, *Malaxis rheedii*, *Nervilia aragoana*, *N. plicata*, *Peristylus lawii*, *Rubia cordifolia*, *Zingiber neesatum* and *Z. nimmonii*. This forest type supports more diversity of epiphytes as compared to the others. The epiphyte flora is constituted by *Aerides crispa*, *A. maculosa*, *Bulbophyllum fimbriatum*, *Conchidium braccatum*, *C. microchilos*, *Dendrobium aqueum*, *D. barbatulum*, *Hoya wightii*, *Remusatia vivipara*, *Oberonia recurva*, *Smithsonia viridiflora* and *Thunia alba* var. *bracteata* along with ferns and mosses.

c. Moist deciduous forests

The moist deciduous forests in BWS are at middle and lower elevations, especially along the slopes surrounding rocky areas and on the west side of the sanctuary. The part of the sanctuary in the Konkan region has this type of forest but the taxa of dry deciduous nature are also found. The top canopy of these forests is constituted by small trees of *Anogeissus latifolia*, *Terminalia chebula*, *T. bellirica*, *T. cuneata*, *Mallotus philippensis*, *Bridelia retusa*, *Tectona grandis*, *Ficus racemosa*, *Erythrina stricta*, *Heterophragma quadriloculare*, *Gnidia glauca*, *Xantolis tomentosa* and *Firmiana simplex*. It is intermixed with *Butea monosperma*, *Boswellia serrata* and *Lannea coromandelica*. The understorey vegetation comprises of *Strobilanthes callosa*, *Atalantia racemosa*, *Breynia retusa*, *Carissa spinarum*, *Pavetta crassicaulis*, *Helicteres isora*, *Holarrhena pubescens* and *Murraya koenigii*. The dry region species like, *Balanites aegyptiaca* were also observed at a few places in the Konkan region. It supports diverse components of climbers and ground vegetation. The climbers are *Hemidesmus indicus* var. *indicus*, *Gymnema sylvestre*, *Jasminum malabaricum*, *Dioscorea pentaphylla* var. *pentaphylla*, and *Asparagus racemosus*. The ground vegetation comprises *Euphorbia fusiformis*, *Drimia indica*, *Pancreatium parvum*, *Zingiber neesatum*, *Curculigo orchoides*, *Hypoxis aurea* and grasses.

d. Plateau vegetation

The plateaus and rocky slopes are interspersed with some stunted vegetation of *Terminalia chebula*, *Memecylon umbellatum*, *Syzygium cumini*, *Gnidia glauca*, *Atalantia racemosa* and *Pavetta crassicaulis*. These areas are generally covered with grasses and species like *Ceropegia sahyadrica*, *Drosera indica*, *Trachyspermum ammi*, *Chlorophytum glaucum*, *C. laxum*, *Curculigo orchioides*, *Hypoxis aurea*, *Nanothamnus sericeus*, *Drimia indica*, *Pancratium parvum*, *Pinda concanensis*, *Senecio dalzellii* and *S. hewrensis* are found among grasses. Small climbers of *Ceropegia media*, *C. vincaefolia*, *Cosmostigma racemosum*, *Gymnema sylvestre*, *Hemidesmus indicus* var. *Indicus* are found scattered along with grasses or small shrubs. Plateau vegetation shows great variation in floristic composition according to the microhabitats on it. The microhabitats identified on rocky plateaus are exposed rock surfaces, rock crevices, seasonal ponds, and soil covered areas. Exposed rock surfaces are generally occupied by lichens, mosses and small ephemeral angiosperms like, *Eriocaulon cookei*, *E. minutum*, *E. ritcheianum*, *E. stellulatum* and *Utricularia* species. Rock crevices support the populations of *Murdannia* sp., *Eriocaulon* spp. and some grasses like, *Aristida stocksii*, *Arthraxon junnaensis*, *A. lancifolius*, *Arundinella spicata*, and *A. tuberculata*. Larger crevices support populations of *Curcuma pseudomontana*, *Ceropegia sahyadrica*, *C. media*, *Pimpinella adscendens*, *P. tomentosa*, *Senecio bombayensis*, *S. dalzellii*, ferns and grasses.

Seasonal ponds are generally inhabited by *Persicaria glabra*, *Rotala densiflora*, *Coix lacryma-jobi*, *Echinocloa colona*, *Sporobolus indicus* and *Pogostemon stellatus*. The soil covered areas are densely inhabited by *Habenaria grandifloriformis*, *H. heyneana*, *Hypoxis aurea*, *Drosera indica*, *Curculigo orchioides*, *Rhamphicarpa fistulosa*, *Sopubia delphinifolia*, *Burmannia coelestis*, *Smithia bigemina*, *S. purpurea*, *S. pycnantha*, *S. blanda*, *S. sensitiva*, *S. setulosa*, *Utricularia albocaerulea*, *U. uliginosa* and *U. striatula*.

This vegetation of monsoon flora along with the grasses confers a mass effect of blooming during and post monsoon periods to the plateau vegetation. This mass blooming also indicates successive changes occurring in the composition of dominant species on these plateaus. These areas show more herbaceous diversity because of the microhabitats supporting short-lived herbaceous taxa.

Floristic diversity

The number of recorded taxa at specific and infraspecific levels are 1,142 belonging to 619 genera

and 124 families of angiosperms (Table 1). The genus to species ratio is 1:1.85. Of these 1094 taxa are wild, which belong to 118 families and 586 genera (Table 1). Rests of the 48 taxa are both planted/cultivated (34) and introduced (14) (Table 2). The diversity of wild plants includes 20 magnolids, belonging to 14 genera and four families. The monocots are 285 spread over 125 genera of 19 families. The Ceratophyllales which are considered to be the probable sisters of Eudicota are represented by only one taxon. The eudicots are 788 taxa spread over 446 genera and 94 families.

A total of 26 families are represented by more than 10 taxa. These largest 26 families are about 22.03% of the total number of families, but comprise 409 (72.01%) genera and 812 (74.22%) taxa at species and infraspecific levels in the wild flora of BWS. Twelve families are represented by more than 20 taxa each and presented in Table 3. Among these, with respect to the number of genera and number of taxa, Poaceae is the largest family with 65 genera and 138 taxa comprising 33 endemics. It is followed by Fabaceae with 50 genera and 135 taxa of which 19 are endemic taxa. The monotypic families are about 23.73% (28) of 118 families recorded as wild from BWS. *Cyperus* is the largest genus represented by 18 taxa followed by *Eriocaulon* with 13 taxa, *Crotalaria* (12 taxa), *Indigofera* (11 taxa), *Desmodium*, *Fimbristylis* and *Ipomoea* (10 taxa each) and *Eragrostis*, *Euphorbia*, *Ficus* and *Leucas* are represented by nine taxa each.

The flora comprises a total of 217 endemic taxa (Images 1–13), which constitute about 19.84% of the total elements (1,094) found in the sanctuary, indicating the richness of endemic flora in BWS. These are distributed among different subgroups as the magnolids have 11 endemics, 74 monocots and 132 eudicots. With respect to endemic taxa, family Poaceae ranks the first with 33 taxa followed by Fabaceae with 19 taxa, Asteraceae (18 taxa), Acanthaceae and Orchidaceae (16 taxa each), Rubiaceae (8) and Apocynaceae (6). Fifteen genera endemic to India are also represented by one or more taxa in the sanctuary; they are *Erinocarpus* Nimmo ex J. Graham, *Frerea* Dalzell, *Glyphochloa* Clayton, *Haplanthodes* Kuntze, *Hardwickia* Roxb., *Helicanthes* Danser, *Lamprachaenium* Benth., *Lophopogon* Hack., *Nanothamnus* Thomson, *Paracaryopsis* (Reidl) R.R. Mill., *Pinda* P.K. Mukh. & Constance, *Seshagiria* Ansari & Hemadri, *Smithsonia* C.J. Saldanha, *Trilobachne* M. Schenck. ex Henrard, and *Triplopogon* Bor.



Image 1. *Impatiens dalzellii* Hook. f. & Thoms.



Image 2. *Ceropegia sahyadrica* Ansari & Kulkarni



Image 3. *Leucas deodikarii* Billore et Hemadri



Image 4. *Glossocardia bosvallia* (L.f.) DC.



Image 5. *Cyathocline lutea* Law ex Wight



Image 6. *Nanothamnus sericeus* T. Thom. (2)



Image 7. *Paracaryopsis malabarica* (C.B.Cl.) R. Mill.



Image 8. *Vigna khandalensis* (Sant.) Raghavan & Wadhwa



Image 9. *Smithsonia viridiflora* (Dalz.) Saldanha



Image 10. *Delphinium malabaricum* (Huth.) Munz.



Image 11. *Frerea indica* Dalz.



Image 12. *Seshagiria sahyadrica* Ansari & Hemadri



Image 13. *Myristica malabarica* Lam.

DISCUSSION

Janardhanan (1966) while studying the flora of Ked Taluka involving some part of Bhimashankar comprising the Bhimashakar Sacred Grove, Nagphani point, Hanuman Talao, Bhakadevi Hill and Bhorgiri had reported a total of 315 taxa from the sanctuary area, comprising 310 wild taxa and five cultivated/introduced. These 310 wild taxa are about 28.34% of 1,094 taxa. Of these 315 taxa, a total of 13 taxa could not be collected by the authors during the present study, but included on the authority of Janardhanan (1966) and marked as ‘***’ in the tables. Janardhanan also reported 54 taxa only on the authority of previous herbarium specimens, collected and deposited at different herbaria by W.A. Talbot, Z. Kapadia, N.A. Irani, and D.P. Panthaki in the Blatter Herbarium, Mumbai (BLAT); J.A. Vasavda and G.S. Puri in Botanical Survey of India, Western Circle, Pune (BSI) and by V.D. Vartak in Agharkar Herbarium, Pune (AHMA).

Pande (2005) reported a total 291 species of 241 genera of 78 angiosperm families, comprising 277 wild and 14 cultivated/introduced taxa. This number (277)

Table 1. The list of wild angiosperms recorded in Bhimashankar Wildlife Sanctuary (BWS).

	Family	Botanical names	Common name	Jana.	Pande	Endemism	IUCN status
	MAGNOLIDS						
1	11 Piperaceae	<i>Piper hookeri</i> Miq.	Miri	*	*	E	
2		<i>Piper trichostachyon</i> (Miq.) DC.		*	*	E	
3	13 Myristicaceae	<i>Knema attenuata</i> Warb.		*		E	
4		<i>Myristica dactyloides</i> Gaertn.					
5		<i>Myristica malabarica</i> Lam.				E	
6	18 Annonaceae	<i>Meiogyne pannosa</i> (Dalz.) J. Sinclair		**	**	E	
7		<i>Milium tomentosum</i> (Roxb.) J. Sinclair	Humb		*	E	
8		<i>Orophea zeylanica</i> Hook. f. & Thomson			**	E	
9		<i>Sageraea laurifolia</i> (Graham) Blatt.			*	E	
10	25 Lauraceae	<i>Actinodaphnae gullavara</i> (Buch. Ham ex Nees) M.R. Almeida	Pisa	*	*	E	
11		<i>Beilschmiedia dalzellii</i> (Meisn.) Kosterm.			*	E	
12		<i>Cinnamomum cassia</i> (L.) J. Presl.			*		
13		<i>Cinnamomum nitidum</i> Nees ex Bojer			*		
14		<i>Cinnamomum verum</i> J.Presl.			*	*	VU
15		<i>Cryptocarya wightiana</i> Thwaites			*	*	
16		<i>Litsea deccanensis</i> Gamble	Chikna	*			
17		<i>Litsea ghatica</i> Sald.					E
18		<i>Litsea josephii</i> S.M. Almeida			*	*	
19		<i>Neolitsea zeylanica</i> (Nees & T. Nees) Merr.			*		
20	<i>Persea macrantha</i> (Nees) Kosterm.				*	LC	
	MONOCOTS						
21	28 Araceae	<i>Amorphophallus bulbifer</i> (Roxb.) Bl.	Sapkanda				
22		<i>Amorphophallus commutatus</i> (Schott) Engl.	Sapkanda			E	
23		<i>Arisaema murrayi</i> (Grah.) Hook.	Badadha	*		E	
24		<i>Cryptocoryne retrospiralis</i> (Roxb.) Kunth					LC
25		<i>Lemna perpusilla</i> Torr.					
26		<i>Remusatia vivipara</i> (Roxb.) Schott & Endl.	Rukhalu	*			
27		<i>Spirodela polyrrhiza</i> (L.) Schleid.					LC
28	32 Hydrocharitaceae	<i>Blyxa aubertii</i> Rich.					
29		<i>Hydrilla verticillata</i> (L. f.) Royle					
30		<i>Najas indica</i> (Willd.) Cham.					LC
31		<i>Vallisneria spiralis</i> L.					LC
32	44 Burmanniaceae	<i>Burmannia coelestis</i> D.Don.			*		
33		<i>Burmannia pusilla</i> (Miers) Thwaites		*			
34	45 Dioscoreaceae	<i>Dioscorea bulbifera</i> L.	Chava		*		
35		<i>Dioscorea oppositifolia</i> L.	Medwan				
36		<i>Dioscorea pentaphylla</i> L.	Ran-chai	*			LC
37	56 Colchicaceae	<i>Gloriosa superba</i> L.	Kal-lavi		*		
38		<i>Iphigenia indica</i> (L.) A. Gray ex Kunth	Markalai	*			
39		<i>Iphigenia magnifica</i> Ansari & Rolla Rao					E
40		<i>Iphigenia pallida</i> Baker					E
41		<i>Iphigenia stellata</i> Blatt.					E
42	59 Smilacaceae	<i>Smilax ovalifolia</i> Roxb. ex D.Don					
43		<i>Smilax zeylanica</i> L.	Ghotuli	*	*		
44	61 Orchidaceae	<i>Aerides crispa</i> Lindl.		*	*	E	
45		<i>Aerides maculosa</i> Lindl.	Amari	*		E	
46		<i>Bulbophyllum fimbriatum</i> (Lindl.) Reichb. f.					E

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47		<i>Cheirostylis flabellata</i> (A. Rich.) Wight.					
48		<i>Conchidium braccatum</i> (Lindl.) Brieger					
49		<i>Conchidium microchilos</i> (Dalz.) Rauschert		*		E	
50		<i>Dendrobium aqueum</i> Lindl.		*		E	
51		<i>Dendrobium barbatulum</i> Lindl.		*		E	
52		<i>Dendrobium herbaceum</i> Lindl.		*		E	
53		<i>Dendrobium macrostachyum</i> Lindl.		*			
54		<i>Dendrobium microbulbon</i> A. Rich.		*		E	
55		<i>Dendrobium ovatum</i> (Willd.) Kranl.				E	
56		<i>Eulophia ochreatea</i> Lindl.				E	
57		<i>Habenaria digitata</i> Lindl.					
58		<i>Habenaria foliosa</i> A. Rich.		*		E	
59		<i>Habenaria grandifloriformis</i> Blatt. & McC.				E	
60		<i>Habenaria heyneana</i> Lindl.		*		E	
61		<i>Habenaria longicorniculata</i> Grah.				E	
62		<i>Malaxis rheedii</i> B. Heyne ex Wallace					
63		<i>Nervilia concolor</i> (Blume) Schltr.					
64		<i>Nervilia plicata</i> (Andr.) Schltr.		*			
65		<i>Oberonia recurva</i> Lindl.		*			
66		<i>Pecteilis gigantea</i> (J.E. Sm.) Rafin.		*			
67		<i>Peristylus lawii</i> Wight					
68		<i>Peristylus stocksii</i> (Hook. f.) Kranzl.		*		E	
69		<i>Smithsonia viridiflora</i> (Dalz.) C.J. Saldanha		*		E	
70		<i>Thunia alba</i> var. <i>bracteata</i> (Roxb.) N. Pearce & P. J. Cribb.					
71	66 Hypoxidaceae	<i>Curculigo orchioides</i> Gaertn.	Kajuri	*	*		
72		<i>Hypoxis aurea</i> Lour.		*			
73	73 Amaryllidaceae	<i>Crinum latifolium</i> L.					
74		<i>Pancratium parvum</i> Dalz.	Pachankand			E	
75		<i>Pancratium triflorum</i> Roxb.	Pachankand				
76	74 Asparagaceae	<i>Asparagus africanus</i> Lam.	Shatavar				
77		<i>Asparagus racemosus</i> Willd.	Shatavar	*			
78		<i>Chlorophytum glaucoides</i> Blatt.	Kolu			E	
79		<i>Chlorophytum glaucum</i> Dalz.	Kolu	*	*	E	
80		<i>Chlorophytum laxum</i> R. Br.					
81		<i>Chlorophytum nimmonii</i> Dalz.					
82		<i>Chlorophytum tuberosum</i> (Roxb.) Baker	Kolu	*			
83		<i>Dipcadi ursulae</i> Blatt. var. <i>ursulae</i>	Ran Lasun			E	
84		<i>Drimia indica</i> (Roxb.) Jessop	Ran-Kanda				
85		<i>Ledebouria revoluta</i> (L. f.) Jessop					LC
86	76 Arecaceae	<i>Caryota urens</i> L.	Bherli-mad	*	*		
87		<i>Phoenix loureiroi</i> var. <i>pedunculata</i> (Griff.) Govaerts	Shindi		*		
88		<i>Phoenix sylvestris</i> (L.) Roxb.	Shindi	*			LC
89	78 Commelinaceae	<i>Commelina benghalensis</i> L.	Kena				
90		<i>Commelina diffusa</i> Burm.f.			*		
91		<i>Commelina paleata</i> Hassk.					
92		<i>Commelina undulata</i> R.Br.		*			
93		<i>Cyanotis cristata</i> (L.) D. Don.		*			
94		<i>Cyanotis fasciculata</i> (Heyne ex Roth) Schult. & Schult. f.		*			
95		<i>Cyanotis pilosa</i> Schult. f.					

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96		<i>Cyanotis tuberosa</i> (Roxb.) J.A. & J.H. Schult.		*		E	
97		<i>Murdannia semiteres</i> (Dalz.) Sant.		*			
98		<i>Murdannia spirata</i> (L.) Brueckn.		*			
99		<i>Murdannia vaginata</i> (L.) Brueckn.					
100		<i>Murdannia versicolor</i> (Dalz.) Brueckn.		*		E	
101	85 Musaceae	<i>Ensete superbum</i> (Roxb.) Cheesm.	Rankel	*			
102	88 Costaceae	<i>Cheilocostus speciosus</i> (J. Konig) C. Specht.					
103	89 Zingiberaceae	<i>Curcuma angustifolia</i> Roxb.					
104		<i>Curcuma decipiens</i> Dalz.				E	
105		<i>Curcuma pseudomontana</i> Grah.	Shilanda	*	*	E	
106		<i>Zingiber neesanum</i> (Grah.) Ramamoorthy	Teva	*		E	
107		<i>Zingiber nimmonii</i> (Grah.) Dalz.					LC
108	90 Typhaceae	<i>Typha angustifolia</i> L.	Pan kanis				
109	94 Eriocaulaceae	<i>Eriocaulon achiton</i> Koern.					LC
110		<i>Eriocaulon cookei</i> Punekar, Malpure & Lakshmin.				E	
111		<i>Eriocaulon diana</i> Fyson. var. <i>trilobodies</i> Fyson		*			LC
112		<i>Eriocaulon elenora</i> Fyson		*			LC
113		<i>Eriocaulon eurypleon</i> Körn				E	
114		<i>Eriocaulon hamiltonianum</i> Mart.					
115		<i>Eriocaulon minutum</i> Hook. f.		*		E	
116		<i>Eriocaulon parviflorum</i> (Fyson) R. Ansari & N. P. Balakr.				E	
117		<i>Eriocaulon richardianum</i> (Fyson) R. Ansari & N. P. Balakr.				E	
118		<i>Eriocaulon ritcheanum</i> Ruhl.				E	LC
119		<i>Eriocaulon sahyadricum</i> Punekar, Malpure & Lakshmin.				E	
120		<i>Eriocaulon stellulatum</i> Korn.		*		E	LC
121		<i>Eriocaulon xeranthemum</i> Mart.					
122	98 Cyperaceae	<i>Bulbostylis densa</i> (Wall.) Hand.-Mazz.					
123		<i>Carex cruciata</i> Wahlenb.					
124		<i>Carex filicina</i> Nees					
125		<i>Carex indica</i> L.					LC
126		<i>Cyperus alopecuroides</i> Rottb.					
127		<i>Cyperus alulatus</i> Kern					LC
128		<i>Cyperus compressus</i> L.		*			
129		<i>Cyperus cruentus</i> Rottb.		*			
130		<i>Cyperus cyperoides</i> (L.) Kuntze					LC
131		<i>Cyperus difformis</i> L.	Lavala	*			LC
132		<i>Cyperus dilatatus</i> Schumach.					
133		<i>Cyperus distans</i> L. f.					
134		<i>Cyperus exaltatus</i> Retz. var. <i>exaltatus</i>					LC
135		<i>Cyperus iria</i> L.		*			LC
136		<i>Cyperus laevigatus</i> L.					
137		<i>Cyperus michelianus</i> (L.) Delile					
138		<i>Cyperus nutans</i> Vahl var. <i>eleusinoides</i> (Kunth) Haines		*			LC
139		<i>Cyperus pangorei</i> Rottb.					
140		<i>Cyperus paniceus</i> (Rottb.) Boeckeler					LC
141		<i>Cyperus rotundus</i> L.	Nagarmotha		*		LC
142		<i>Cyperus rubicundus</i> Vahl					LC
143		<i>Cyperus tenuispica</i> Steud.					

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144		<i>Eleocharis geniculata</i> (L.) Roem. & Schult.					
145		<i>Eriophorum comosus</i> (Wall.) Nees	Sumbh				
146		<i>Fimbristylis aestavilis</i> Vahl					
147		<i>Fimbristylis argentea</i> (Rottb.) Vahl					
148		<i>Fimbristylis dichotoma</i> (L.) Vahl					
149		<i>Fimbristylis ferruginea</i> (L.) Vahl		*			
150		<i>Fimbristylis lawiana</i> (Boeckeler) J. Kern.		*			
151		<i>Fimbristylis littoralis</i> Gaudich. var. <i>littoralis</i>					
152		<i>Fimbristylis quinqueangularis</i> (Vahl) Kunth					
153		<i>Fimbristylis schoenoides</i> (Retz.) Vahl					
154		<i>Fimbristylis tetragona</i> R. Br.					
155		<i>Fimbristylis woodrowii</i> C.B.Cl.				E	
156		<i>Kyllinga pumila</i> Michx.					
157		<i>Kyllinga tenuifolia</i> Steud.					
158		<i>Pycreus flavescens</i> (L.) P. Beauv. ex Reichb.					
159		<i>Pycreus flavidus</i> (Retz.) T. Koyama		*			
160		<i>Pycreus malabaricus</i> C.B.Cl.				E	
161		<i>Pycreus pumilus</i> (L.) Nees var. <i>pumilus</i>					
162		<i>Pycreus sanguinolentus</i> (Vahl) Nees					
163		<i>Rhynchospora berteroi</i> (Spreng) C.B.Cl.					
164		<i>Rhynchospora wightiana</i> (Nees) Steud.					
165		<i>Schoenoplectiella lateriflora</i> (Gmel.) Lye					
166		<i>Schoenoplectiella roylei</i> (Nees) Lye					
167		<i>Scleria stocksiana</i> Boeck.				E	
168	103 Poaceae	<i>Alloteropsis cimicina</i> (L.) Stapf	Sinri				
169		<i>Andropogon pumilus</i> Roxb.	Gondal		*		
170		<i>Apluda mutica</i> L.	Phuti				
171		<i>Aristida adscensionis</i> L.	Kusal				
172		<i>Aristida funiculata</i> Trin. & Rupr.	Kusal		*		
173		<i>Aristida redacta</i> Stapf	Kusal				
174		<i>Aristida stocksii</i> (Hook. f.) Domin	Kusal			E	
175		<i>Arthraxon junnaensis</i> S.K. Jain & Hemadri				E	
176		<i>Arthraxon lancifolius</i> (Trin.) Hochst.					
177		<i>Arthraxon meeboldii</i> Stapf.				E	
178		<i>Arthraxon villosus</i> C.E.C. Fischer	Turda			E	
179		<i>Arundinella holcoides</i> (Kunth) Trin.		*			
180		<i>Arundinella metzii</i> Hochst. ex Miq.		*		E	
181		<i>Arundinella pumila</i> (Hochst.) Steud.		*			
182		<i>Arundinella spicata</i> Dalz.				E	
183		<i>Arundinella tuberculata</i> Munro ex Lisboa				E	
184		<i>Bambusa bambos</i> (L.) Voss	Bamboo		*		
185		<i>Bothriochloa bladhii</i> (Retz.) S.T. Blake		*			
186		<i>Bothriochloa compressa</i> (Hook. f.) Henrard			*	E	
187		<i>Bothriochloa jainii</i> Deshp. & Hemadri				E	
188		<i>Bothriochloa kuntzeana</i> (Hack.) Hermard			*		
189		<i>Bothriochloa pertusa</i> (L.) A. Camus		*	*		
190		<i>Brachiaria eruciformis</i> (J.E. Sm.) Griseb.					
191		<i>Brachiaria ramosa</i> (L.) Stapf					
192		<i>Brachiaria reptans</i> (L.) Gard. & C.E. Hubb.	Chimanchara				
193		<i>Capillipedium huegelii</i> (Hack.) A. Camus		*		E	

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194		<i>Cenchrus ciliaris</i> L.					
195		<i>Cenchrus pennisetiformis</i> Steud.					
196		<i>Chloris barbata</i> Swartz	Gondvel				
197		<i>Chloris virgata</i> Swartz	Panda-gavat				
198		<i>Chrysopogon fulvus</i> (Spr.) Chiov.	Kahandol				
199		<i>Chrysopogon zizanioides</i> (L.) Roberty	Vala		**		
200		<i>Coix lacryma-jobi</i> L.	Kachor	*			
201		<i>Cymbopogon citratus</i> (DC.) Stapf	Gavatchaha		*		
202		<i>Cymbopogon martinii</i> (Roxb.) Wats	Surud-gavat				
203		<i>Cynodon dactylon</i> (L.) Pers.	Durva		*		
204		<i>Dactyloctenium aegyptium</i> (L.) P. Beauv					
205		<i>Dactyloctenium aristatum</i> Link					
206		<i>Dichanthium annulatum</i> (Forsk.) Stapf	Marvel		*		
207		<i>Dichanthium armatum</i> (Hook. f.) Blatt. & McC.			*	E	
208		<i>Dichanthium assimile</i> (Steud.) Deshp.					
209		<i>Dichanthium caricosum</i> (L.) A. Camus	Marvel				
210		<i>Dichanthium concanense</i> (Hook.f.) S.K. Jain & Deshp.		*		E	
211		<i>Dichanthium maccannii</i> Blatt.				E	
212		<i>Dichanthium foveolatum</i> (Del.) Roberty	Marvel				
213		<i>Digitaria ciliaris</i> (Retz.) Koeler					
214		<i>Digitaria longiflora</i> (Retz.) Pers.					
215		<i>Digitaria setigera</i> Roth					
216		<i>Digitaria stricta</i> Roth					
217		<i>Digitaria ternata</i> (A. Rich.) Stapf					
218		<i>Dimeria stapfiana</i> C.B. Hubb. ex Pilger	Kotir	*			
219		<i>Dinebra retroflexa</i> (Vahl) Panz.					
220		<i>Echinochloa colona</i> (L.) Link	Sava				
221		<i>Eleusine indica</i> (L.) Gaertn.					
222		<i>Elytrophorus spicatus</i> (Willd.) A. Camus					
223		<i>Eragrostiella bifaria</i> (Vahl) Bor					
224		<i>Eragrostis amabilis</i> (L.) Wight & Arn.					
225		<i>Eragrostis ciliaris</i> (L.) R. Br.					
226		<i>Eragrostis gangetica</i> (Roxb.) Steud.					
227		<i>Eragrostis japonica</i> (Thunb.) Trin.		*			
228		<i>Eragrostis minor</i> Host.					
229		<i>Eragrostis nutans</i> (Retz.) Nees ex Steud.					
230		<i>Eragrostis patula</i> (Kunth) Steud.					
231		<i>Eragrostis pilosa</i> (L.) P. Beauv.					
232		<i>Eragrostis unioloides</i> (Retz.) Nees ex Steud.		*			
233		<i>Eriochloa procera</i> (Retz.) C.E. Hubb.					
234		<i>Eulalia fimbriata</i> (Hack.) O. Ktze.					
235		<i>Eulalia trispicata</i> (Schult.) Henr.					
236		<i>Garnotia tenella</i> (Arn. ex Miq.) Jan.					
237		<i>Glyphochloa forficulata</i> (C.E.C. Fisch.) Clayton	Marvel			E	
238		<i>Hackelochloa granularis</i> (L.) Kuntz.					
239		<i>Heteropogon contortus</i> (L.) P. Beauv. ex Roem. & Schult	Kusal	*	*		
240		<i>Heteropogon ritchiei</i> (Hook. f.) Blatt. & McC.	Patang			E	
241		<i>Heteropogon triticeus</i> (R.Br.) Stapf ex Craib		*	*		
242		<i>Isachne bicolor</i> Naik & Patunkar				E	

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243		<i>Isachne borii</i> Hemadri				E	
244		<i>Isachne elegans</i> Dalz.			*	E	
245		<i>Isachne globosa</i> (Thunb.) O. Ktze.		*			
246		<i>Isachne gracilis</i> C.E.		*		E	
247		<i>Isachne lisboae</i> Hook. f.				E	
248		<i>Ischaemum afrum</i> (Gmel.) Dandy	Kunda		*		
249		<i>Ischaemum commutatum</i> Hack.					
250		<i>Ischaemum dalzellii</i> Stapf ex Bor				E	
251		<i>Ischaemum diplopogon</i> Hook. f.		*		E	
252		<i>Ischaemum impressum</i> Hack.		*		E	
253		<i>Ischaemum kingii</i> Hook. f.			*	E	
254		<i>Ischaemum molle</i> Hook. f.					
255		<i>Ischaemum rugosum</i> Salisb.					
256		<i>Jansenella griffithiana</i> (C. Muell.) Bor		*			
257		<i>Lophopogon tridentatus</i> (Roxb.) Hack.		*		E	
258		<i>Melanocenchris jacquemontii</i> Jaub. & Spach.					
259		<i>Microchloa indica</i> (L.f.) P. Beauv.					
260		<i>Ophiuros exaltatus</i> (L.) O. Ktze.					
261		<i>Oplismenus burmannii</i> (Retz.) P. Beauv.	Kudak		*		
262		<i>Oplismenus compositus</i> (L.) P. Beauv.					
263		<i>Oropetium roxburghianum</i> (Steud.) S. M. Phillips				E	
264		<i>Oropetium thomaeum</i> (L. f.) Trin.					
265		<i>Oropetium villosulum</i> Stapf ex Bor					
266		<i>Panicum curviflorum</i> Hornem.					
267		<i>Panicum sumatrense</i> Roth ex Roem. & Schult			*		
268		<i>Paspalidium flavidum</i> (Retz.) A. Camus					
269		<i>Paspalidium geminatum</i> (Forsk.) Stapf					
270		<i>Paspalum canarae</i> (Steud.) Veldk. var. <i>canarae</i>		*			
271		<i>Paspalum distichum</i> L.					LC
272		<i>Paspalum scrobiculatum</i> L.	Kodru				
273		<i>Pennisetum glaucum</i> (L.) R.Br.		*			
274		<i>Pennisetum hohenackeri</i> Hochst. & Steud.		*			
275		<i>Pennisetum pedicellatum</i> Trin.					
276		<i>Phalaris minor</i> Retz. var. <i>minor</i>					
277		<i>Polypogon monspeliensis</i> (L.) Desf.					
278		<i>Polytrias indica</i> (Houtt.) Veldk.		*			
279		<i>Pseudanthistiria heteroclita</i> (Roxb.) Hook f.					
280		<i>Pseudodichanthium serrafalcoides</i> (Cooke & Stapf) Bor				E	
281		<i>Pseudoxytenanthera ritcheyi</i> (Munro) H. B. Naithani			*	E	
282		<i>Rottboellia cochinchinensis</i> (Lour.) W.D. Clayton					LC
283		<i>Saccharum spontaneum</i> L.	Padar				
284		<i>Sacciolepis indica</i> (L.) A. Chase var. <i>indica</i>					
285		<i>Sacciolepis interrupta</i> (Willd.) Stapf.					
286		<i>Sehima ischaemoides</i> Forsk.					
287		<i>Sehima nervosum</i> (Rottl.) Stapf.	Pavanya-gavat				
288		<i>Sehima sulcatum</i> (Hack.) A. Camus	Shenda-gavat			E	
289		<i>Setaria intermedia</i> Roem. & Schult.					
290		<i>Setaria italica</i> (L.) P. Beauv.	Rala				
291		<i>Setaria pumila</i> (Poir) Roem. & Schult.	Kolva				

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292		<i>Setaria verticillata</i> (L.) P. Beauv.					
293		<i>Setaria viridis</i> (L.) P. Beauv.	Rala				
294		<i>Spodiopogon rhizophorus</i> (Steud.) Pilger.		*		E	
295		<i>Sporobolus indicus</i> (L.) R. Br.					
296		<i>Tetrapogon tenellus</i> (Roxb.) Chiov.					
297		<i>Thelepogon elegans</i> Roth					
298		<i>Themeda quadrivalvis</i> (L.) O. Ktze.	Kusal	*			
299		<i>Themeda tremula</i> (Nees ex Steud.) Hack.					
300		<i>Themeda triandra</i> Forssk.	Khondal-gavat				
301		<i>Tragus mongolorum</i> Ohwi					
302		<i>Tragus racemosus</i> (L.) All.					
303		<i>Trilobachne cookei</i> (Stapf) Scheneck. ex Henrard				E	
304		<i>Triplopogon ramosissimus</i> (Hack.) Bor		*		E	
305		<i>Tripogon lisboae</i> Stapf		*		E	LC
	CERATOPHYLLALES						
306	104 Ceratophyllaceae	<i>Ceratophyllum demersum</i> L.			*		
	EUDICOTS						
307	109 Menispermaceae	<i>Cissampelos pareira</i> L.	Tannivel		*		
308		<i>Cocculus hirsutus</i> (L.) Theob.	Vasan-vel				
309		<i>Cyclea peltata</i> (Lam.) Hook f.& Thoms.	Pakar	*	*		
310		<i>Diploclisia glaucescens</i> (Bl.) Diels	Ramrakhi	*	*		
311		<i>Stephania japonica</i> (Thunb.) Miers.	Pahad-vel	*	*		
312		<i>Tinospora sinensis</i> (Lour.) Merr.	Gul-vel		*		
313	111 Ranunculaceae	<i>Clematis brachiata</i> Thunb.		*			
314		<i>Clematis gouriana</i> Roxb. ex DC.	Morvel	*			
315		<i>Clematis hedysarifolia</i> DC.	Morvel	*		E	
316		<i>Clematis heynei</i> M. A. Rau & al.	Ranjai			E	
317		<i>Clematis wightiana</i> Wall.		**		E	
318		<i>Delphinium malabaricum</i> (Huth.) Munz.	Ran-dongra			E	
319		<i>Thalictrum dalzellii</i> Hook.				E	
320	120 Dilleniaceae	<i>Dillenia pentagyna</i> Roxb.	Karmal	*			
321	130 Crassulaceae	<i>Bryophyllum pinnatum</i> (Lam.) Oken.					
322		<i>Kalanchoe lanceolata</i> (Forssk.) Pres. var. <i>glabra</i> (C.B.Cl.) Srinivasan	Panphuti				
323		<i>Kalanchoe olivacea</i> Dalz.				E	
324	136 Vitaceae	<i>Ampelocissus latifolia</i> (Roxb.) Planch.	Nandana		*		
325		<i>Cayratia trifolia</i> (L.) Domin	Ambat-vel				
326		<i>Cissus adnata</i> Roxb.					
327		<i>Cissus elongata</i> Roxb.	Guduga-mul	*			
328		<i>Cissus repens</i> Lam.					
329		<i>Cissus woodrowii</i> (Stapf ex T. Cooke) Sant.				E	
330		<i>Cyphostemma auriculatum</i> (Roxb.) P. Singh & Shetty	Ambat-vel				
331		<i>Cyphostemma setosum</i> (Roxb.) Alst.					
332		<i>Leea asiatica</i> (L.) Ridsd.	Dinda				
333		<i>Leea indica</i> (Burm. f.) Merr.	Handarfod	*	*		
334	138 Zygophyllaceae	<i>Balanites aegyptiaca</i> (L.) Del.	Hingan-bet				
335		<i>Tribulus terrestris</i> L	Sarata				
336	140 Fabaceae (Caesalpinioideae)	<i>Bauhinia racemosa</i> Lam.	Apta		*		LC
337		<i>Caesalpinia bonduc</i> (L.) Roxb.	Sagargota				

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338		<i>Caesalpinia crista</i> L.			*		
339		<i>Caesalpinia cucullata</i> Roxb.			*		
340		<i>Caesalpinia decapetala</i> (Roth.) Alst.	Chilhar	*	*		
341		<i>Cassia fistula</i> L.	Bahava		*		
342		<i>Chamaecrista absus</i> (L.) Irwin & Barneby	Tarvad				
343		<i>Chamaecrista mimosoides</i> (L.) Greene	Tarvad				
344		<i>Chamaecrista pumila</i> (Lam.) Singh					
345		<i>Hardwickia binata</i> Roxb.				E	
346		<i>Moullava spicata</i> (Dalz.) Nicolson				E	
347		<i>Senna auriculata</i> (L.) Roxb.	Tarvad				
348		<i>Senna obtusifolia</i> (L.) Irwin & Barneby	Takla				
349		<i>Senna occidentalis</i> (L.) Link	Ran-takala				
350		<i>Senna sophera</i> (L.) Roxb.	Ran-takala				
351		<i>Senna tora</i> (L.) Roxb.	Takala		*		
352		<i>Tamarindus indica</i> L.	Chinch		*		
353	140 Fabaceae (Mimosoideae)	<i>Acacia catechu</i> (L. f.) Willd.	Khair		*		
354		<i>Acacia chundra</i> (Roxb. ex Rottl.) Willd.	Khair				
355		<i>Acacia farnesiana</i> (L.) Willd.	Dev-babhal				VU
356		<i>Acacia ferruginea</i> DC.	Pandara khair				
357		<i>Acacia leucophloea</i> (Roxb.) Willd.	Hivar				
358		<i>Acacia sinuata</i> (Lour.) Merr.			*		
359		<i>Acacia torta</i> (Roxb.) Craib	Chilar	*			
360		<i>Albizia chinensis</i> (Osbeck.) Merr.		**			
361		<i>Albizia lebbek</i> (L.) Bth. var. <i>lebbek</i>	Shirish		*		
362		<i>Albizia odoratissima</i> (L. f.) Bth.	Kala-shirish		*		
363		<i>Albizia procera</i> (Roxb.) Bth.					
364		<i>Dichrostachys cinerea</i> var. <i>indica</i> Brenen & Brummit	Shami			E	
365		<i>Entada rheedii</i> Spreng	Garbi		*		
366		<i>Mimosa hamata</i> Willd.					LC
367		<i>Mimosa pudica</i> L.	Lajalu		*		
368		<i>Prosopis cineraria</i> (L.) Druce	Shami				
369		<i>Senegalia visco</i> (Lorentz ex Griseb.) Seigler & Ebinger		**			
370	140 Fabaceae (Papilionoideae)	<i>Abrus precatorius</i> L.	Gunj		*		LC
371		<i>Aeschynomene indica</i> L.	Bhend				
372		<i>Alysicarpus bupleurifolius</i> (L.) DC.	Barka shevra				
373		<i>Alysicarpus heyneanus</i> Wight & Arn. var. <i>heyneanus</i>					
374		<i>Alysicarpus longifolius</i> (Rottl. ex Spreng.) Wight & Arn.					
375		<i>Alysicarpus monilifer</i> (L.) DC.					
376		<i>Alysicarpus pubescens</i> Law.					
377		<i>Alysicarpus tetragonolobus</i> Edgew. var. <i>tetragonolobus</i>					
378		<i>Alysicarpus vaginalis</i> (L.) DC. var. <i>nummularifolius</i> Miq.					
379		<i>Butea monosperma</i> (Lam.) Taub.	Palas		*		
380		<i>Butea superba</i> Roxb. ex. Willd.					
381		<i>Cajanus lineatus</i> (Wight & Arn.) Maesen	Ran-tur	*			
382		<i>Cajanus scarabaeoides</i> (L.) du-Petit-Thours	Ran-tur				
383		<i>Cajanus sericeus</i> (Bth. ex Baker) Maesen		*		E	

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384		<i>Canavalia ensiformis</i> (L.) DC.	Abai				
385		<i>Clitoria annua</i> J. Graham				E	
386		<i>Clitoria ternatea</i> L.	Gokarn		*		LC
387		<i>Crotalaria albida</i> Heyne ex Roth					
388		<i>Crotalaria filipes</i> Bth. var. <i>filipes</i>		*		E	
389		<i>Crotalaria filipes</i> Bth. var. <i>trichophora</i> (Bth. ex Baker) T. Cooke				E	
390		<i>Crotalaria hebecarpa</i> (DC.) Rudd.	Godhadi	*			
391		<i>Crotalaria hirta</i> Willd.					
392		<i>Crotalaria juncea</i> L.	Tagada				
393		<i>Crotalaria linifolia</i> L. f.					
394		<i>Crotalaria medicaginea</i> Lam.	Ranghas				
395		<i>Crotalaria mysorensis</i> Roth					
396		<i>Crotalaria orixensis</i> Willd.					
397		<i>Crotalaria retusa</i> L.		*	*		
398		<i>Crotalaria vestita</i> Baker		*			
399		<i>Dalbergia lanceolaria</i> L. f.					
400		<i>Dalbergia lanceolaria</i> L. f. ssp. <i>paniculata</i> (Roxb.) Thoth.					VU
401		<i>Dalbergia latifolia</i> Roxb.	Shisav		*		
402		<i>Dendrobium triangulare</i> (Retz.) Schindl.					
403		<i>Desmodium belgaumense</i> (Wight) A. Pramanik & Thoth.				E	
404		<i>Desmodium racemosum</i> (Bth.) A. Pramanik & Thoth.			*	E	
405		<i>Desmodium alysicarpoides</i> van Meenumen		*			
406		<i>Desmodium dichotomum</i> (Willd.) DC.					
407		<i>Desmodium gangeticum</i> (L.) DC.			*		
408		<i>Desmodium laxiflorum</i> DC.					
409		<i>Desmodium oojeinense</i> (Roxb.) H. Ohashi			*		
410		<i>Desmodium renifolium</i> (L.) Schindl.					
411		<i>Desmodium ritchiei</i> Sanj.					
412		<i>Desmodium scorpiurus</i> (Sw.) Desv.					
413		<i>Desmodium triflorum</i> (L.) DC.					
414		<i>Desmodium velutinum</i> (Willd.) DC.					
415		<i>Dolichos trilobus</i> L.	Halandy				
416		<i>Erythrina stricta</i> Roxb.	Pangara	*	*		
417		<i>Erythrina suberosa</i> Roxb.	Pangara				
418		<i>Flemingia strobilifera</i> (L.) Ait. & Ait. f.		*			
419		<i>Geissaspis cristata</i> Wight & Arn.	Barki	*			
420		<i>Geissaspis tenella</i> Bth.	Kaila Barki			E	
421		<i>Indigostrum parviflorum</i> (Wight & Arn.) Schrire					
422		<i>Indigofera cassioides</i> Rottl. ex DC.	Chimnati	*	*		
423		<i>Indigofera cordifolia</i> Heyne ex Roth	Godhadi				
424		<i>Indigofera deccanensis</i> Sanj.				E	
425		<i>Indigofera glandulosa</i> Wendl.	Borupdi	*			
426		<i>Indigofera hendecaphylla</i> Jacq.					
427		<i>Indigofera linifolia</i> (L.) Retz.		*			
428		<i>Indigofera nummularifolia</i> (L.) Livera					
429		<i>Indigofera spicata</i> Forsk.					
430		<i>Indigofera tinctoria</i> L.			*		
431		<i>Indigofera trifoliata</i> L. var. <i>trifoliata</i>					

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432		<i>Indigofera trita</i> L. f.	Barbada				
433		<i>Melilotus indicus</i> (L.) All.	Ran-methi				
434		<i>Melilotus officinalis</i> ssp. <i>alba</i> (Medik.) H. Ohashi & Tateishi					
435		<i>Mucuna pruriens</i> (L.) DC.	Khaj-kuilee		*		
436		<i>Neonotonia wightii</i> (Wight & Arn.) Lackey					
437		<i>Nesphostylis bracteata</i> (Baker) D. Potter & J.J. Doyle				E	
438		<i>Paracalyx scariosus</i> (Roxb.) Ali	Ran-ghevda	*	*		
439		<i>Pongamia pinnata</i> (L.) Pierre	Karanj	*	*		LC
440		<i>Pterocarpus marsupium</i> Roxb.	Bivala	*	*	E	
441		<i>Pueraria tuberosa</i> (Roxb. ex Willd.) DC.	Pitthana				
442		<i>Rhynchosia minima</i> (L.) DC.					
443		<i>Rhynchosia rothii</i> Bth. ex Ait.					
444		<i>Sesbania bispinosa</i> (Jacq.) W. F. Wight	Ransevari				
445		<i>Smithia bigemina</i> Dalz.	BarkaKoula	*			LC
446		<i>Smithia blanda</i> Wall.		*			
447		<i>Smithia conferta</i> J. E. Sm.	Koula				
448		<i>Smithia purpurea</i> Hook.	Kaila	*	*	E	
449		<i>Smithia pycnantha</i> Bth. ex Baker		*		E	
450		<i>Smithia salsuginea</i> Hance.		*		E	
451		<i>Smithia sensitiva</i> Ait.	Pivala Kaila	*			
452		<i>Smithia setulosa</i> Dalz.	Pivala kaila			E	
453		<i>Stylosanthes fructicosa</i> (Retz.) Alst.	Hamata grass				
454		<i>Tadehagi triquetrum</i> (L.) H. Ohashi		*			
455		<i>Tephrosia purpurea</i> (L.) Pers.	Unhali		*		
456		<i>Tephrosia senticosa</i> (L.) Pers.					
457		<i>Tephrosia strigosa</i> (Dalz.) Sant. & Mahesh.					
458		<i>Tephrosia tinctoria</i> (L.) Pers.	Nil	*			
459		<i>Teramnus labialis</i> (L. f.) Spreng.	Ran-udid				
460		<i>Teramnus repens</i> (Taub.) Baker f. ssp. <i>gracilis</i> (Chiov.) Verdc.					
461		<i>Vigna angularis</i> (Willd.) Ohwi & Ohashi	Mung				
462		<i>Vigna dalzelliana</i> (O. Ktze.) Verdc.					
463		<i>Vigna khandalensis</i> (Sant.) Raghavan & Wadhwa	Badmung	*		E	
464		<i>Vigna radiata</i> (L.) R. Wilczek					
465		<i>Vigna radiata</i> var. <i>setulosa</i> (Dalz.) Ohwi & Ohashi		*			
466		<i>Vigna trilobata</i> (L.) Verdc.	Jangli math		*		
467		<i>Vigna vexillata</i> (L.) A. Rich. var. <i>stocksii</i> Benth. ex Baker	Halunda			E	
468		<i>Zornia diphylla</i> (L.) Pers.	Shevra				
469	142 Polygalaceae	<i>Polygala arvensis</i> Willd.	Phutani				
470		<i>Polygala elongata</i> Klein.					
471		<i>Polygala erioptera</i> DC.	Nandi-bail				
472	143 Rosaceae	<i>Prunus ceylanica</i> (Wight) Miq.			*		
473		<i>Rubus ellipticus</i> Sm.			*		
474	146 Elaeagnaceae	<i>Elaeagnus conferta</i> Roxb.	Amboli	*	*		
475	147 Rhamnaceae	<i>Rhamnus virgata</i> var. <i>hirsuta</i> (Wight & Arn.) Y.L. Chen & P.K. Chou	Ragat-roda				
476		<i>Sageretia parviflora</i> G. Don			*		
477		<i>Scutia myrtina</i> (Burm.f.) Kurz			*		
478		<i>Ventilago bombaiensis</i> Dalz.		**	**	E	

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479		<i>Ventilago maderaspatana</i> Gaertn. var. <i>maderaspatana</i>			*		
480		<i>Ziziphus caracutta</i> Roxb.				E	LC
481		<i>Ziziphus jujuba</i> Mill.			*		
482		<i>Ziziphus rugosa</i> Lam.	Toran	*	*		
483	148 Ulmaceae	<i>Holoptelea integrifolia</i> Planch.	Wavala		*		
484	149 Cannabaceae	<i>Celtis timorensis</i> Spanoghe			*		
485		<i>Trema orientalis</i> (L.) Bl.	Ghol		*		
486	150 Moraceae	<i>Antiaris toxicaria</i> Lesch.			*		
487		<i>Artocarpus heterophyllus</i> Lam.	Phanas	*			
488		<i>Ficus arnottiana</i> (Miq.) Miq.	Payar	*	*		
489		<i>Ficus benghalensis</i> L.	Wad				
490		<i>Ficus drupacea</i> Thunb.			*		
491		<i>Ficus exasperata</i> Vahl.	Bhui-umbar		*		
492		<i>Ficus hispida</i> L. f.	Kala-umbar	*	*		
493		<i>Ficus microcarpa</i> L. f.	Nandruk	*			
494		<i>Ficus nervosa</i> Heyne ex Roth		*	*		
495		<i>Ficus racemosa</i> L.	Umbar	*	*		
496		<i>Ficus religiosa</i> L.	Pimpal		*		
497	151 Urticaceae	<i>Boehmeria glomerulifera</i> Miq.	Aagya		*		
498		<i>Boehmeria macrophylla</i> Hornem	Aagya				
499		<i>Girardinia diversifolia</i> (Link) Friis	Bond Aagya				
500		<i>Laportea interrupta</i> (L.) Chew.	Aagya				
501		<i>Lecanthus peduncularis</i> (Wall. ex Royle) Wedd.		*			
502		<i>Parietaria debilis</i> Forst. f.					
503		<i>Pouzolzia zeylanica</i> (L.) Benn.		*			
504	163 Cucurbitaceae	<i>Corallocarpus epigaeus</i> (Rottl.) C.B.Cl.	Mungus kand				
505		<i>Cucumis melo</i> L.	Kadushenri	*			
506		<i>Cucumis setosus</i> Cong	Meki			E	
507		<i>Dicaeospermum ritchei</i> C.B.Cl.					
508		<i>Diplocyclos palmatus</i> (L.) C. Jeffrey					
509		<i>Melothria perpusilla</i> (Blume) Cogn.		*			
510		<i>Momordica dioica</i> Roxb. ex Willd.	Kartoli				
511		<i>Mukia maderaspatana</i> (L.) Roem.	Chirati				
512		<i>Solena amplexicaulis</i> (Lam.) Gandhi	Gomati		*	E	
513		<i>Trichosanthes tricuspidata</i> Lour.		*			
514		<i>Zehneria scabra</i> (L. f.) Sond.	Chirati				
515	166 Begoniaceae	<i>Begonia crenata</i> Dryand.		*		E	
516	168 Celastraceae	<i>Arnicratea grahamii</i> (Wight) N. Halle			*		
517		<i>Cassine glauca</i> (Rottb.) O. Ktze.	Bhutyta				
518		<i>Celastrus paniculatus</i> Willd.	Kanguni	*	*		
519		<i>Gymnosporia senegalensis</i> (Lam.) Loes.	Yekal	*			
520		<i>Maytenus rothiana</i> (Walp.) Lobreau-Collen	Yekal	*	*	E	
521		<i>Salacia macrosperma</i> Wight					
522	170 Connaraceae	<i>Rourea minor</i> (Gaertn.) Alston.		*	*		
523	171 Oxalidaceae	<i>Biophytum sensitivum</i> (L.) DC.	Lajalu				
524		<i>Oxalis corniculata</i> L.	Ambushi				
525	179 Rhizophoraceae	<i>Carallia brachiata</i> (Lour.) Merr.	Phanshi	*	*		
526	183 Clusiaceae	<i>Garcinia indica</i> (Thouars) Choisy.	Kokam			E	
527		<i>Garcinia spicata</i> Hook. f.			*		

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528		<i>Garcinia talbotii</i> Raizada ex Santapau		*	*	E	
529		<i>Mammea suriga</i> (Buch.-Ham. ex Roxb.) Kosterm.			*	E	
530	185 Podostemaceae	<i>Dalzellia ceylanica</i> (Gardn.) Wight					
531		<i>Polypleurum stylosum</i> (Wight.) Hall.				E	
532		<i>Zeylanidium lichenoides</i> (Kurz) Engl.					
533		<i>Zeylanidium subulatum</i> (Gardn.) C. Cusset					
534	189 Putranjivaceae	<i>Drypetes roxburghii</i> (Wall.) Hurusawa					
535		<i>Drypetes venusta</i> (Wight) Pax & K.Hoffm.			*	E	
536	191 Elatinaceae	<i>Bergia ammannioides</i> Roxb. ex Roth					
537	192 Malpighiaceae	<i>Aspidopterys cordata</i> (Heyne ex Wall.) A. Juss.	Bokadvel	*		E	
538		<i>Hiptage benghalensis</i> (L.) Kurz	Yevata				
539	202 Passifloraceae	<i>Passiflora foetida</i> L.					
540	204 Salicaceae	<i>Casearia graveolens</i> Dalz.	Bokhada	*			
541		<i>Casearia tomentosa</i> Roxb.	Bokhada				
542		<i>Flacourtia indica</i> (Burm. f.) Merr.	Yenkhal	*	*		
543		<i>Flacourtia latifolia</i> (Hook. f. & Thoms.) T. Cooke	Tambat			E	
544		<i>Flacourtia montana</i> J.Graham		*	*	E	
545	207 Euphorbiaceae	<i>Acalypha brachystachya</i> Hornem	Khokali				
546		<i>Acalypha spiciflora</i> Burm.f.			*		
547		<i>Chrozophora prostrata</i> Dalz. & Gibs.					
548		<i>Croton zeylanicus</i> Müll.-Arg.			*		
549		<i>Dimorphocalyx glabellus</i> Thwaites var. <i>lawianus</i> (Hook. f.) Chakrab. & N.P. Balakr.		*	*	E	
550		<i>Euphorbia antiquorum</i> L.	Sabar				
551		<i>Euphorbia fusiformis</i> Buch.-Ham. ex D.Don	Bhuiphod				
552		<i>Euphorbia heterophylla</i> L.					
553		<i>Euphorbia hirta</i> L.					
554		<i>Euphorbia nivulia</i> Buch.-Ham.					
555		<i>Euphorbia pycnostegia</i> Boiss					
556		<i>Euphorbia rothiana</i> Spreng.	Dudhi				
557		<i>Euphorbia thymifolia</i> L.	Lahan-dudhi				LC
558		<i>Euphorbia tirucalli</i> L.	Sher				
559		<i>Falconeria insignis</i> Royle.	Hura	*			LC
560		<i>Homonioia riparia</i> Lour	Serni	*			
561		<i>Macaranga peltata</i> (Roxb.) Mull. Arg.	Chandada	*	*		
562		<i>Mallotus polycarpus</i> (Bth.) Kulju & Welzen	Petari				
563		<i>Mallotus aureopunctatus</i> (Dalz.) Mull. Arg.			*	E	
564		<i>Mallotus philippensis</i> (Lam.) Mull. Arg.	Shendri	*	*		
565		<i>Mallotus resinous</i> (Blanc.) Merr.		*	*		
566		<i>Mallotus rhamnifolius</i> (Willd.) Mull. Arg.		*			
567		<i>Mallotus tetracoccus</i> (Roxb.) Kurz					
568		<i>Tragia hispida</i> Willd.					
569		<i>Tragia involucrata</i> L.			*		
570		<i>Tragia praetervisa</i> Chakrab. & N. P. Balakr.		*			
571	208 Linaceae	<i>Linum mysurense</i> Heyne ex Bth.	Kadsur	*	*		
572		<i>Reinwardtia indica</i> Dum.					
573	211 Phyllanthaceae	<i>Breynia retusa</i> (Dennst.) Alston	Kangli		*		
574		<i>Bridelia retusa</i> (L.) A. Juss.	Asana		*		
575		<i>Bridelia squamosa</i> (Lam.) Gehrm.	Asana	*	*		
576		<i>Bridelia tomentosa</i> Bl.					

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577		<i>Flueggea virosa</i> (Roxb. ex Willd.) Royle	Petuni	*			
478		<i>Flueggea leucopyrus</i> Willd.			*		
479		<i>Glochidion ellipticum</i> Wight	Bhoma		*		
580		<i>Glochidion hoenackeri</i> (Mull. Arg.) Bedd. var. <i>hoenackeri</i>		*		E	
581		<i>Glochidion puberum</i> (L.) Hutch.			*		
582		<i>Glochidion zeylanicum</i> (Gaerth) A.Juss					
583		<i>Phyllanthus amarus</i> Schum & Thonn					
584		<i>Phyllanthus debilis</i> Klein ex Willd.		*			
585		<i>Phyllanthus emblica</i> L.	Avala		*		
586		<i>Phyllanthus fraternus</i> Webster	Dador		*		
587		<i>Phyllanthus niruri</i> L.					
588	212 Geraniaceae	<i>Monsonia senegalensis</i> Guill. & Perr.					
589	214 Combretaceae	<i>Anogeissus latifolia</i> (Roxb. ex DC.) Wall. ex Guill. & Perr.	Dhawada		*		
590		<i>Combretum albidum</i> G. Don	Piluki				
591		<i>Getonia floribunda</i> Roxb.	Ukshi		*		
592		<i>Terminalia bellirica</i> (Gaertn.) Roxb.	Behada	*	*		
593		<i>Terminalia chebula</i> Retz.	Hirda	*	*		
594		<i>Terminalia cuneata</i> Roth.	Arjun Sadada	*	*		
595		<i>Terminalia elliptica</i> Willd.	Ain		*		LC
596	215 Lythraceae	<i>Ammannia auriculata</i> Willd.					LC
597		<i>Ammannia baccifera</i> L.					
598		<i>Lagerstroemia lanceolata</i> Wall.		*			
599		<i>Lagerstroemia microcarpa</i> Wight	Nana		*	E	
600		<i>Rotala densiflora</i> (Roth ex Roem. & Schult.) Koehne					
601		<i>Rotala indica</i> (Willd) Koehne					LC
602		<i>Rotala macrandra</i> Koehne				E	
603		<i>Rotala mexicana</i> Schldt. & Cham.					
604		<i>Rotala serpyllifolia</i> (Roth) Bremek.		*			LC
605		<i>Woodfordia fruticosa</i> (L.) Kurz	Dhayati		*		
606	218 Myrtaceae	<i>Eugenia phillyraeoides</i> Trimen			*		
607		<i>Syzygium cumini</i> (L.) Skeels	Jambhal	*	*		
608		<i>Syzygium stocksii</i> (Duthie) Gamble				E	
609		<i>Syzygium umbellatum</i> Korth.			*		
610		<i>Syzygium zeylanicum</i> (L.) DC.	Jambuti				
611	219 Melastomataceae	<i>Memecylon umbellatum</i> Burm. f. var. <i>umbellatum</i> L. f.	Anjan	*	*		
612		<i>Sonerila scapigera</i> Hook.					
613	238 Burseraceae	<i>Boswellia serrata</i> Roxb. ex Colebr.	Salai			E	
614		<i>Canarium strictum</i> Roxb.	Ral-dhup		*		
615		<i>Garuga pinnata</i> Roxb.	Kakkad		*		
616	239 Anacardiaceae	<i>Holigarna arnottiana</i> Hook.				E	
617		<i>Lannea coromandelica</i> (Houtt.) Merr.	Moya		*		DD
618		<i>Mangifera indica</i> L.	Amba	*	*		
619		<i>Nothopogia castaneifolia</i> (Roth) Ding Hou			*	E	
620		<i>Rhus mysorensis</i> G. Don	Amboni	*			
621		<i>Semecarpus anacardium</i> L. f. var. <i>anacardium</i>	Bibba		*		
622		<i>Spondias pinnata</i> (L. f.) Kurz			*		
623	240 Sapindaceae	<i>Allophylus cobbe</i> (L.) Raeusch.	Tipan				
624		<i>Allophylus rheedei</i> Radlk.	Tipan	*			

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625		<i>Cardiospermum halicacabum</i> L.	Kapalphodi				LR
626		<i>Dimocarpus longan</i> Lour.	Umb				
627		<i>Lepisanthes tetraphylla</i> (Vahl) Radlk.	Lokhandi		*		
628		<i>Sapindus laurifolius</i> Vahl	Ritha		*		
629		<i>Schleichera oleosa</i> (Lour.) Merr.	Koshimb				
630	241 Rutaceae	<i>Aegle marmelos</i> (L.) Corr.	Bel		*		
631		<i>Atalantia racemosa</i> Wight in Hook.	Makad limbu	*	*	E	VU
632		<i>Chloroxylon swietenia</i> DC.	Halda				
633		<i>Glycosmis pentaphylla</i> (Retz.) DC.		*	*		
634		<i>Melicope lunu-ankenda</i> (Gaertn.) T.G. Hartley			*		
635		<i>Murraya koenigii</i> (L.) Spr.	Kadhipatta	*	*		
636		<i>Murraya paniculata</i> (L.) Jack	Pandharphali	*	*		
637		<i>Zanthoxylum rhetsa</i> (Roxb.) DC.	Tirphal	*	*		
638	242 Simaroubaceae	<i>Ailanthus excelsa</i> Roxb.	Maharukh				
639	243 Meliaceae	<i>Aglaia elaeagnoidea</i> (A.Juss.) Bth.			*		
640		<i>Aglaia lawii</i> (Wight.) Sald.	Telya	*	*		
641		<i>Azadirachta indica</i> A. Juss.	Neem		*		
642		<i>Chukrasia tabularis</i> A. Juss.	Lal-devdar		*		
643		<i>Cipadessa baccifera</i> (Roth) Miq.					
644		<i>Dysoxylum gotadhora</i> (Buch.-Ham.) Mabb.		*	*		
645		<i>Heynea trijuga</i> Roxb. ex Sims					
646		<i>Paramignya monophylla</i> Wight		**			
647		<i>Reinwardtiadendron anamalaiense</i> (Bedd.) Mabb.			*		
648		<i>Soyimida febrifuga</i> (Roxb.) A. Juss.	Rohan				
649		<i>Toona hexandra</i> (Wall. ex Roxb.) Roem. var. <i>hexandra</i>	Mahanim		*		
650		<i>Turraea pubescens</i> Hell.			*		
651		<i>Walsura trifoliolata</i> (A. Juss.) Harms.					
652	247 Malvaceae	<i>Abelmoschus manihot</i> (L.) Medik. ssp. <i>manihot</i>	Jagali bendi	*			
653		<i>Abelmoschus manihot</i> (L.) Medik. ssp. <i>tetraphyllus</i> (Roxb. ex Horn.) Borss.	Ran Bendi			E	
654		<i>Abutilon bidentatum</i> Hochss ex Rich.					
655		<i>Abutilon indicum</i> (L.) Sweet. ssp. <i>indicum</i>	Madhu				
656		<i>Bombax ceiba</i> L.	Kate-savar		*		
657		<i>Bombax insigne</i> Wall.	Savar		*		
658		<i>Corchorus aestuans</i> L.					
659		<i>Corchorus capsularis</i> L.	Kaduchinch				
660		<i>Corchorus fascicularis</i> Lam.		*			
661		<i>Corchorus trilocularis</i> L.	Kaduchinch				
662		<i>Erinocarpus nimmonii</i> Grah. ex Dalz.				E	
663		<i>Eriolaena quinquelocularis</i> (Wight & Arn.) Wight	Bothi			E	
664		<i>Firmiana colorata</i> (Roxb.) R. Br.	Kaushil		*		
665		<i>Firmiana simplex</i> (L.) W. Wight.					
666		<i>Grewia abutilifolia</i> Vent. ex A. Juss.	Chikna	*			
667		<i>Grewia asiatica</i> L.					
668		<i>Grewia flavescens</i> A. Juss.					
669		<i>Grewia hirsuta</i> Vahl	Kirmid				
670		<i>Grewia multiflora</i> Juss.		*			
671		<i>Grewia serrulata</i> DC.	Dhaman		*		
672		<i>Grewia tilifolia</i> Vahl	Dhaman		*		
673		<i>Helicteres isora</i> L.	Murudseng		*		

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674		<i>Hibiscus caesius</i> Garcke	Ran-bhendi				
675		<i>Hibiscus hirtus</i> L.					
676		<i>Hibiscus hispidissimus</i> Griff.					
677		<i>Hibiscus lobatus</i> (J.A. Murr.) O. Ktze.					
678		<i>Hibiscus micranthus</i> L.f.					
679		<i>Hibiscus talbotii</i> (Rakshit) Paul & Nayar				E	
680		<i>Hibiscus trionum</i> L.					
681		<i>Kydia calycina</i> Roxb.	Varag	*	*		
682		<i>Malvastrum coromandelianum</i> (L.) Garcke.					
683		<i>Sida acuta</i> Burm. f.	Bala				
684		<i>Sida alnifolia</i> L.					
685		<i>Sida cordata</i> (Burm. f.) Borss.					
686		<i>Sida cordifolia</i> L.					
687		<i>Sida orientalis</i> Cav.		**			
688		<i>Sida rhombifolia</i> L.			*		
689		<i>Sida spinosa</i> L.					
690		<i>Sterculia guttata</i> Roxb. ex DC.	Kokeri	*	*		
691		<i>Thespesia lampas</i> (Cav.) Dalz. & Gibs.					
692		<i>Triumfetta pilosa</i> Roth.		*			
693		<i>Triumfetta rhomboidea</i> Jacq.	Thinjhira				
694		<i>Urena lobata</i> L.	Ranbhendi				
695	249 Thymelaeaceae	<i>Gnidia glauca</i> (Fresen.) Gilg	Rametha		*		
696	268 Capparaceae	<i>Cadaba fruticosa</i> (L.) Druce	Kalitakal				
697		<i>Capparis grandis</i> L. f.	Pachunda	*			
698		<i>Capparis decidua</i> (Forssk.) Edgew.	Nepti				
699		<i>Capparis divaricata</i> Lam.	Pachunda				
700		<i>Capparis rotundifolia</i> Rottl.	Kolisina		*		
701		<i>Capparis spinosa</i> L.	Kabar				
702	269 Cleomaceae	<i>Cleome viscosa</i> L.	Pivli-Tilwan				
703		<i>Cleome gynandra</i> L.	Ghaneri				
704		<i>Cleome simplicifolia</i> Hook. f. & Thoms.				E	
705	270 Brassicaceae	<i>Cardamine trichocarpa</i> Hochst. ex A. Rich.		*			
706		<i>Iberis amara</i> L.					
707		<i>Rorippa indica</i> (L.) Hiern.					
708	273 Olacaceae	<i>Olax imbricata</i> Roxb.		*	*		
709		<i>Olax scandans</i> Roxb.	Sher				
710	274 Opiliaceae	<i>Cansjera rheedei</i> J.F.Gmel.		**			
711	276 Santalaceae	<i>Osyris lanceolata</i> Hochst. & Steud.	Popli	*	*		
712		<i>Santalum album</i> L.	Chandan				
713		<i>Viscum angulatum</i> Heyne ex DC.	Jaiunder	*			
714		<i>Viscum articulatum</i> Burm.					
715	279 Loranthaceae	<i>Dendrophthoe falcata</i> (L.f.) Ettingsh.	Bandgul				
716		<i>Helicanthes elasticus</i> (Desv.) Danser		*		E	
717		<i>Macrosolen capitellatus</i> (Wight & Arn.) Danser					
718		<i>Taxillus cuneatus</i> Danser		*			
719	281 Tamaricaceae	<i>Tamarix ericoides</i> Rottl. & Willd.	Sheri				
720	282 Plumbaginaceae	<i>Plumbago zeylanica</i> L.	Chitrak		*		
721	283 Polygonaceae	<i>Persicaria auriculata</i> (Meissn.) Dixit, Datt & G.P.Roy	Paral				
722		<i>Persicaria decipiens</i> (R. Br.) K. L. Wilson	Dhakta-sheral				
723		<i>Persicaria glabra</i> (Willd.) Gomez	Sheral	*			

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724		<i>Polygonum plebeium</i> R. Br. var. <i>plebeium</i>		*			LC
725	284 Droseraceae	<i>Drosera indica</i> L.		*			
726	288 Ancistrocladaceae	<i>Ancistrocladus heyneanus</i> Wall. ex Grah.	Kardal	*	*		
727	295 Caryophyllaceae	<i>Polycarpaea corymbosa</i> (L.) Lam.					
728		<i>Polycarpon prostratum</i> (Forssk.) Aschers. & Schweinf		*			
729	297 Amaranthaceae	<i>Achyranthes aspera</i> L. var. <i>aspera</i>	Aghada	*			
730		<i>Achyranthes coynei</i> Sant.				E	
731		<i>Aerva lanata</i> (L.) Juss. ex Schult.					
732		<i>Amaranthus spinosus</i> L.	Katmath		*		
733		<i>Amaranthus tricolor</i> L. var. <i>tricolor</i>					
734		<i>Celosia argentea</i> L. var. <i>argentea</i>	Kurdu	*	*		
735		<i>Chenopodium album</i> L.	Chandanbatava				
736		<i>Digera muricata</i> (L.) Mart.					
737	304 Aizoaceae	<i>Trianthema portulacastrum</i> L.	Ghol				
738		<i>Trianthema triquetra</i> Rottl. ex Willd.					
739	308 Nyctaginaceae	<i>Boerhavia diffusa</i> L.					
740		<i>Boerhavia erecta</i> L.	Punarnawa				
741		<i>Boerhavia grandiflora</i> A.Rich.					
742	309 Molluginaceae	<i>Glinus lotoides</i> L.		*			
743		<i>Mollugo pentaphylla</i> L.					
744	315 Portulacaceae	<i>Portulaca oleracea</i> L.	Ghol	*			
745	317 Cactaceae	<i>Opuntia elatior</i> Mill.	Nivdung	*			
746	324 Cornaceae	<i>Alangium salvifolium</i> (L. f.) Wangerin					
747	325 Balsaminaceae	<i>Impatiens acaulis</i> Arn.					
748		<i>Impatiens balsamina</i> L. var. <i>balsamina</i>	Terda	*	*		
749		<i>Impatiens dalzellii</i> Hook. f. & Thoms.				E	
750		<i>Impatiens minor</i> (DC.) Bennet var. <i>minor</i>				E	
751		<i>Impatiens oppositifolia</i> L.					
752		<i>Impatiens pulcherrima</i> Dalz.			*		E
753		<i>Impatiens pusilla</i> B. Heyne ex Wall.			**		
754		330 Lecythidaceae	<i>Careya arborea</i> Roxb.	Kumbh		*	
755	333 Sapotaceae	<i>Madhuca longifolia</i> (Koen.) Mc Bride. var. <i>longifolia</i>	Moha		*		
756		<i>Mimusops elengi</i> L.	Bakul		*		
757		<i>Xantolis tomentosa</i> (Roxb.) Raf.	Kumbal	*	*		
758	334 Ebenaceae	<i>Diospyros ebenum</i> J.Koenig ex Retz.		*			
759		<i>Diospyros exculpta</i> Buch-Ham.					
760		<i>Diospyros malabarica</i> (Desr.) Kostel.					
761		<i>Diospyros melanoxydon</i> Roxb.	Tembhurni				
762		<i>Diospyros montana</i> Roxb.	Kundal	*			
763		<i>Diospyros sylvatica</i> Roxb.		*	*		
764		335 Primulaceae	<i>Anagallis arvensis</i> L.				
765	<i>Embelia basaal</i> (Roem. & Schult) A. DC		Vavdinga	*	*		
766	<i>Embelia drupacea</i> (Dennst.) M.R. Almeida & S.M.Almeida						
767	<i>Embelia viridiflora</i> (A.DC.) Scheff.			*			
768	<i>Maesa indica</i> (Roxb.) A. DC		Atki		*		
769	337 Symplocaceae	<i>Symplocos beddomei</i> C.B.Cl.		*			
770		<i>Symplocos racemosa</i> Roxb.	Lenda		*		
771	348 Icacinaceae	<i>Nothapodytes nimmoniana</i> (J. Grah.) Mabb.	Narakya		*		
772	352 Rubiaceae	<i>Benkara malabarica</i> (Lam.) Tirveng			*		

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773		<i>Catunaregam spinosa</i> (Thunb.) Tirveng.	Gel	*	*		
774		<i>Dentella repens</i> (L.) J. R. & G. Forst.					
775		<i>Gardenia gummifera</i> L.f.	Dikemali		*	E	
776		<i>Gardenia resinifera</i> Roth	Dikemali				
777		<i>Haldina cordifolia</i> (Roxb.) Ridsd.	Haldu				
778		<i>Hedyotis auricularia</i> L.					
779		<i>Hedyotis corymbosa</i> (L.) Lam.	Pitapapada				
780		<i>Hedyotis herbacea</i> L.	Paripath				
781		<i>Hedyotis pumila</i> L. f.					
782		<i>Hedyotis stocksii</i> (Hook. f. & Thoms.) Rao & Hemadri					
783		<i>Hymenodictyon obovatum</i> Wall.	Kadavu		*	E	
784		<i>Ixora brachiata</i> Roxb.	Lokhandi		*	E	
785		<i>Ixora nigricans</i> R.Br. ex Wight & Arn.		*			
786		<i>Ixora pavetta</i> Andr.	Lokandi		*		
787		<i>Kohautia aspera</i> (Heyne ex Roth) Bremek.					
788		<i>Meyna laxiflora</i> Robyns	Alu	*			
789		<i>Mitragyna parvifolia</i> (Roxb.) Korth.	Kalamba		*		
790		<i>Morinda pubescens</i> J. E. Sm.	Bartondi		*		
791		<i>Neanotis calycina</i> (Wall. ex Hook. f.) W. H. Lewis		*			
792		<i>Neanotis foetida</i> (Hook. f.) W. H. Lewis		*			
793		<i>Neanotis lancifolia</i> (Hook. f.) W. H. Lewis				E	
794		<i>Neanotis latifolia</i> (Dalz.) Deb. & Dutta				E	
795		<i>Neanotis rheedei</i> (Wight & Arn.) W.H. Lewis		*		E	
796		<i>Oldenlandia affinis</i> (Roem. & Schult.) DC.		*			
797		<i>Oldenlandia herbacea</i> (L.) Roxb.		*			
798		<i>Oxyceros rugulosus</i> (Thw.) Tirveng.		*	*		
799		<i>Pavetta crassicaulis</i> Bremek.	Asavel	*	*	E	
800		<i>Pavetta siphonantha</i> Dalz.		*	*	E	
801		<i>Pavetta tomentosa</i> Roxb. ex J. E. Sm.		*			
802		<i>Psydrax umbellata</i> (Wight) Bridson	Tupa	*	*		
803		<i>Rubia cordifolia</i> L.	Manjista	*	*		
804		<i>Spermacoce articularis</i> L. f.					
805		<i>Spermacoce pusilla</i> Wall.					
806		<i>Spermadictyon suaveolens</i> Roxb.	Narkya				
807	353 Gentianaceae	<i>Canscora decurrens</i> Dalz.					
808		<i>Canscora diffusa</i> (Vahl) R. Br. ex Roem. & Schult var. <i>diffusa</i>		*			
809		<i>Canscora diffusa</i> (Vahl) R. Br. ex Roem. & Schult var. <i>tetraptera</i> Naik & Pokle					
810		<i>Canscora pauciflora</i> Dalz. in Hook.					
811		<i>Centaurium meyeri</i> (Bunge) Druce	Luntak				
812		<i>Enicostema axillare</i> (Lam.) Raynal	Chota-Karait				
813		<i>Exacum lawii</i> C.B.Cl.		*		E	
814		<i>Exacum petiolare</i> Griseb.					
815		<i>Hoppea dichotoma</i> Heyne ex Willd.					
816		<i>Swertia densifolia</i> (Griseb.) Kashyapa				E	
817		<i>Swertia minor</i> (Griseb.) Knobl.				E	
818	356 Apocynaceae (Apocynoideae)	<i>Alstonia scholaris</i> (L.) R. Br.			*		
819		<i>Anodendron manubriatum</i> Merr.	Lokhandi				
820		<i>Catharanthus pusillus</i> (Murr.) G. Don					

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821		<i>Holarrhena pubescens</i> (Buch.-Ham.) Wall. ex G. Don	Pandhara kuda		*		
822		<i>Nerium indicum</i> Mill.	Kanher		*		
823		<i>Wrightia tinctoria</i> R. Br. ssp. <i>tinctoria</i>	Kala kuda				
824	356 Apocynaceae (Asclepiadoideae)	<i>Asclepias curassavica</i> L.	Kurki				
825		<i>Calotropis gigantea</i> (L.) Dryand.			*		
826		<i>Caralluma adscendens</i> (Roxb.) R. Br. var. <i>fimbriata</i> (Wall.) Grav. & Mayur.	Shindal makadi				
827		<i>Ceropegia bulbosa</i> Roxb. var. <i>bulbosa</i>	Hamid				
828		<i>Ceropegia bulbosa</i> Roxb. var. <i>lushii</i> (Grah.) Hook. f.	Hamid				
829		<i>Ceropegia hirsuta</i> Wight & Arn.	Hamid				
830		<i>Ceropegia media</i> (Huber) Ansari	Gavati-tanachi kharpudi	*		E	
831		<i>Ceropegia sahyadrica</i> Ansari & Kulkarni	Kharpudi			E	
832		<i>Ceropegia vincaefolia</i> Hook.	Kharpudi		*	E	
833		<i>Cosmostigma racemosum</i> (Roxb.) Wight	Shendvel				
834		<i>Cynanchum callialata</i> Buch.-Ham.					
835		<i>Frerea indica</i> Dalz.	Shindal-Makadi		*	E	
836		<i>Gymnema cuspidatum</i> (Thunb.) Kuntze.					
837		<i>Gymnema sylvestre</i> (Retz.) R.Br. ex Schultes	Bedkicha-pala	*	*		
838		<i>Heterostemma tanjorensis</i> Wight. & Arn.					
839		<i>Hoya wightii</i> Hook. f.	Ambri	*			
840		<i>Leptadenia reticulata</i> (Retz.) Wight & Arn.	Hirandodi				
841		<i>Pergularia daemia</i> (Forssk.) Choiv.		*			
842		<i>Sarcostemma viminalis</i> (L.) R. Br. ssp. <i>viminalis</i>					
843		<i>Seshagiria sahyadrica</i> Ansari & Hem.	Khobar-doda			E	
844		<i>Tylophora dalzellii</i> Hook. f.	Kavali	*	*	E	
845		<i>Tylophora indica</i> (Burm. f.) Merr.	Kavali				
846		<i>Wattakaka volubilis</i> (L. f.) Stapf.	Tan				
847	356 Apocynaceae (Periplocoideae)	<i>Cryptolepis buchanani</i> Roem. & Schult.	Kavali	*			
848		<i>Cryptostegia grandiflora</i> R. Br.	Kavali				
849		<i>Hemidesmus indicus</i> (L.) Schult. var. <i>indicus</i>	Anantmul	*	*		
850	356 Apocynaceae (Rauvolfioideae)	<i>Carissa spinarum</i> L.	Karvand	*			
851		<i>Rauvolfia serpentina</i> (L.) Bth. ex Kurz			*		
852		<i>Rauvolfia tetraphylla</i> L.			*		
853		<i>Rauvolfia verticillata</i> Baillon					
854	357 Boraginaceae	<i>Coldenia procumbens</i> L.					
855		<i>Cordia dichotoma</i> Forst. f.	Bhokar		*		
856		<i>Cordia gharaf</i> (Forssk.) Ehrenb. & Asch.	Gondani				
857		<i>Cordia macleadii</i> (Griff.) Hook. f. & Thoms.	Dahivan				
858		<i>Cynoglossum wallichii</i> G.Don.		*			
859		<i>Cynoglossum zeylanicum</i> (Vahl ex Hornem.) Thunb. ex Lehm.					
860		<i>Ehretia laevis</i> Roxb.	Datrangi				
861		<i>Heliotropium indicum</i> L.			*		
862		<i>Heliotropium supinum</i> L.					
863		<i>Heliotropium zeylanicum</i> (Burm. f.) Lam. ssp. <i>zeylanicum</i>					
864		<i>Paracaryopsis coelestina</i> (Lindl.) R. Mill.	Nisurdi	*		E	
865		<i>Paracaryopsis malabarica</i> (C.B.Cl.) R. Mill.	Nisurdi		*	E	
866		<i>Rotula aquatica</i> Lour.	Datrangi				

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867		<i>Trichodesma indicum</i> (L.) Lehm.	Chota kaipa	*			
868	359 Convolvulaceae	<i>Argyreia cuneata</i> (Willd.) Ker-Gawl.	Maha-lungi			E	
869		<i>Argyreia sericea</i> Dalz. & Gibs.	Mhasvel	*		E	
870		<i>Argyreia strigosa</i> (Roth.) Roberty	Mhasvel				
871		<i>Convolvulus arvensis</i> L.					
872		<i>Cuscuta campestris</i> Yuncker	Ambri				
873		<i>Cuscuta chinensis</i> Lam. var. <i>chinensis</i>	Ambri	*			
874		<i>Cuscuta reflexa</i> Roxb.	Ambri				
875		<i>Evolvulus alsinoides</i> (L.) L.	Vishnukranta				
876		<i>Ipomoea turbinata</i> Lag	Garvel				
877		<i>Ipomoea cairica</i> (L.) Sweet.	Garvel				
878		<i>Ipomoea campanulata</i> L.	Tambarvel				
879		<i>Ipomoea clarkei</i> Hook. f.					E
880		<i>Ipomoea deccana</i> Austin var. <i>lobata</i> (C.B.Cl.) Johari					E
881		<i>Ipomoea eriocarpa</i> R. Br.					
882		<i>Ipomoea hederifolia</i> L.	Ganeshvel				
883		<i>Ipomoea mauritiana</i> Jacq.			*		
884		<i>Ipomoea obscura</i> (L.) Ker-Gawl. forma	Pungali				
885		<i>Ipomoea quamoclit</i> L.	Ganesh pushpa				
886		<i>Jacquemontia paniculata</i> (Burm. f.) Hall. f.					LC
887		<i>Merremia gangetica</i> (L.) Cufod.	Undirkani				
888	<i>Merremia umbellata</i> (L.) Hall. f.						
889	<i>Porana racemosa</i> Roxb.	Bhuri					
890	<i>Rivea hypocrateriformis</i> (Desr.) Choisy	Phangvel					
891	<i>Rivea laotica</i> Ooststr.						
892	360 Solanaceae	<i>Datura ferox</i> L.					
893		<i>Datura innoxia</i> Mill.	Dhotra		*		
894		<i>Physalis minima</i> L.	Ran popati	*			
895		<i>Solanum anguivi</i> Lam.	Bhui-ringni		*		
896		<i>Solanum indicum</i> L.		*	*		
897		<i>Solanum virginianum</i> L.	Kate-ringni				
898		<i>Solanum xanthocarpum</i> Schr. & Wendl.					
899		<i>Withania somnifera</i> (L.) Dunal	Ashwagandha		*		
900	366 Oleaceae	<i>Chionanthus mala-elengi</i> (Denst.) P.S. Green.		**		E	
901		<i>Jasminum malabaricum</i> Wight	Kusar	*	*	E	
902		<i>Olea dioica</i> Roxb.	Karap	*	*		
903		<i>Schrebera swietenoides</i> Roxb.	Makhiri		*		
904	370 Plantaginaceae	<i>Bacopa monnieri</i> (L.) Wettst.	Nira-bramhi		*		
905		<i>Dopatrium junceum</i> (Roxb.) Buch.-Ham. ex Bth.					
906		<i>Kickxia ramosissima</i> (Wall.) Janchen					
907		<i>Limnophila heterophylla</i> (Roxb.) Bth.					
908		<i>Limnophila indica</i> (L.) Druce					
909		<i>Stemodia viscosa</i> Roxb.					
910	371 Scrophulariaceae	<i>Buddleja asiatica</i> Lour.					
911	373 Linderniaceae	<i>Lindernia ciliata</i> (Colsm.) Penn					
912		<i>Lindernia crustacea</i> (L.) F. V. Muell.					
913		<i>Lindernia hyssopioides</i> (L.) Haines					
914		<i>Lindernia oppositifolia</i> (L.) Mukherjee					
915		<i>Lindernia parviflora</i> (Roxb.) Haines					
916		<i>Torenia indica</i> Sald.					

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917	375 Martyniaceae	<i>Martynia annua</i> L.	Vaghnakhi					
918	376 Pedaliaceae	<i>Sesamum orientale</i> L.	RantiTil					
919	377 Acanthaceae (Acanthoideae)	<i>Andrographis echiodides</i> (L.) Nees		*				
920		<i>Andrographis paniculata</i> (Burm. f.) Wall. Ex Nees	Kalmeg	*	*			
921		<i>Asystasia dalzelliana</i> Sant.		*	*	E		
922		<i>Barleria cristata</i> L. var. <i>cristata</i>						
923		<i>Barleria involucrata</i> Nees		*				
924		<i>Barleria lawii</i> T. And.				E		
925		<i>Blepharis integrifolia</i> (L.f.) E. Mey. & Drege ex Schinz.						
926		<i>Cynarospermum asperrimum</i> (Nees) Vollesen			*	*	E	
927		<i>Dicliptera paniculata</i> (Forssk.) I. Darbysh.						
928		<i>Dicliptera verticillata</i> (Forssk.) C. Chr.						
929		<i>Dyschoriste vagans</i> (Wight) O.Ktze.					E	
930		<i>Ecobolium ligustrinum</i> (Vahl) Vollesen						
931		<i>Eranthemum pulchellum</i> Andrews.						
932		<i>Eranthemum roseum</i> (Vahl) R. Br.	Dasamuli	*		E		
933		<i>Haplanthodes neilgherryensis</i> (Wight) R. B. Majumdar					E	
934		<i>Haplanthodes tentaculatus</i> (L.) R.B. Majumdar					E	
935		<i>Haplanthodes verticillatus</i> (Roxb.) R.B. Majumdar	Jakara				E	
936		<i>Hygrophila auriculata</i> (Schumach.) Heine	Talimkhana					
937		<i>Hygrophila serpyllum</i> T. And. var. <i>serpyllum</i>	Rantewan	*	*	E		
938		<i>Indoneesiella echiodides</i> (L.) Sreem.	Pandhrafeda					
939		<i>Justicia betonica</i> L.		*	*			
940		<i>Justicia diffusa</i> Willd.						
941		<i>Justicia latispica</i> Gamble.			*			
942		<i>Justicia procumbens</i> L.		*				
943		<i>Justicia quinqueangularis</i> Koen. ex Roxb.						
944		<i>Lepidagathis cristata</i> Willd.	Bhuigend					
945		<i>Lepidagathis cuspidata</i> Nees	Bhuikata					
946		<i>Mackenzia integrifolia</i> (Dalz.) Bremek.			*	E		
947		<i>Neuracanthus sphaerostachyus</i> (Nees) Dalz.				E		
948		<i>Nilgirianthus reticulatus</i> (Stapf) Bremek.	Karvi	*	*	E		
949		<i>Rhinacanthus nasutus</i> (L.) Kurz.	Gajkarni					
950	<i>Rostellularia crinita</i> Nees							
951	<i>Ruellia patula</i> Jacq.	Katmora						
952	<i>Rungia elegans</i> Dalz. & Gibs.				E			
953	<i>Rungia linifolia</i> Nees				E			
954	<i>Rungia pectinata</i> (L.) Nees		*					
955	<i>Rungia repens</i> (L.) Nees							
956	<i>Strobilanthes callosa</i> Nees	Karvi	*	*	E			
957	<i>Thelepaepale ixiocephala</i> (Bth.) Bremek.		*	*	E			
958	377 Acanthaceae (Thunbergioideae)	<i>Thunbergia laevis</i> Nees		*				
959	378 Bignoniaceae	<i>Dolichandrone falcata</i> (Wall. ex DC.) Seem	Medsing			E		
960		<i>Heterophragma quadriloculare</i> (Roxb.) K. Schum.	Varas	*	*	E		
961		<i>Oroxylum indicum</i> (L.) Kurz.	Tetu		*			
962		<i>Radermachera xylocarpa</i> (Roxb.) Roxb. ex Schum.	Kharsingh		*	E		
963	379 Lentibulariaceae	<i>Utricularia albocaulis</i> Dalz.				E		
964		<i>Utricularia graminifolia</i> Vahl.						

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965		<i>Utricularia striatula</i> J. E. Sm.		*			
966		<i>Utricularia uliginosa</i> Vahl.		*			
967		<i>Phyla nodiflora</i> (L.) Greene	Gourkhmundi				
968	382 Verbenaceae	<i>Verbena bipinnatifida</i> Nutt.					
969	383 Lamiaceae	<i>Anisomeles heyneana</i> Bth.	Chandhara	*		E	
970		<i>Anisomeles indica</i> (L.) O. Ktze.	Gopali				
971		<i>Callicarpa tomentosa</i> (L.) L.			*		
972		<i>Colebrookea oppositifolia</i> Sm.	Bhaman	*	*		
973		<i>Gmelina arborea</i> Roxb.	Shivan		*		
974		<i>Hyptis suaveolens</i> (L.) Poit.					
975		<i>Isodon lophanthoides</i> (Buch.-Ham. ex D. Don) H. Hara var. <i>lophanthoides</i>		*			
976		<i>Lavandula bipinnata</i> O. Ktze.		*		E	
977		<i>Leonotis nepetifolia</i> (L.) R. Br.	Dipmal				
978		<i>Leucas longifolia</i> Bth.					
979		<i>Leucas aspera</i> (Willd.) Link					
980		<i>Leucas biflora</i> (Vahl) R. Br. var. <i>biflora</i>					
981		<i>Leucas cephalotes</i> (Roth) Spr.					
982		<i>Leucas ciliata</i> Bth.	Bhurandi	*			
983		<i>Leucas deodikarii</i> Billore et Hemadri				E	
984		<i>Leucas stelligera</i> Wall. ex Bth.	Burandi	*	*		
985		<i>Leucas stricta</i> Bth.					
986		<i>Leucas zeylanica</i> (L.) W.T. Aiton					
987		<i>Ocimum gratissimum</i> L.	Ram-tulas				
988		<i>Ocimum tenuiflorum</i> L.	Kali-tulas	*	*		
989		<i>Orthosiphon pallidus</i> Royle ex Bth.					
990		<i>Orthosiphon rubicundus</i> (D. Don) Bth.					
991		<i>Plectranthus mollis</i> (Ait.) Spr.	Mainmul				
992		<i>Pogostemon benghalensis</i> (Burm. f.) O. Ktze.		*			
993		<i>Pogostemon parviflorus</i> Bth.					
994		<i>Pogostemon purpurascens</i> Dalz.		*		E	
995		<i>Pogostemon stellatus</i> (Lour.) O. Ktze.		*	*		
996		<i>Premna coriacea</i> C.B.Cl.		*			
997		<i>Premna obtusifolia</i> R. Br. var. <i>pubescens</i> Moldenke f.					
998		<i>Rothea serrata</i> (L.) Steane & Mabb.	Bharang				
999		<i>Salvia plebeian</i> R.Br.		*			
1000		<i>Tectona grandis</i> L. f	Sag		*		
1001		<i>Vitex negundo</i> L. var. <i>negundo</i>	Nirgudi	*	*		
1002		<i>Vitex trifolia</i> L.	Nirgudi				
1003		<i>Volkameria inermis</i> L.	Takala				
1004	385 Phymaceae	<i>Mimulus strictus</i> Bth.					
1005	387 Orobanchaceae	<i>Aeginetia indica</i> L.					
1006		<i>Buchnera hispida</i> Buch.-Ham. ex D. Don		*	*		
1007		<i>Centranthera indica</i> (L.) Gamble					
1008		<i>Christisonia lawii</i> Wight					
1009		<i>Orbanche aegyptiaca</i> Pers.					
1010		<i>Rhaphicarpa fistulosa</i> (Hochst.) Bth.		*		E	
1011		<i>Sopubia delphinifolia</i> (L.) G. Don var. <i>delpinifolia</i>		*	*		
1012		<i>Sopubia delphinifolia</i> (L.) G. Don var. <i>parviflora</i> Bth.				E	

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1013		<i>Striga angustifolia</i> (D. Don) Sald.					
1014		<i>Striga asiatica</i> (L.) O. Ktze.					
1015		<i>Striga gesnerioides</i> (Willd.) Vatke		*			
1016		<i>Striga sulphurea</i> Dalz. & Gibs.					LC
1017	394 Campanulaceae	<i>Lobelia alsinoides</i> Lam.					
1018		<i>Lobelia heyneana</i> Roem. & Schult					
1019		<i>Lobelia nicotianaefolia</i> Roth ex Roem. & Schult		*	*		
1020		<i>Wahlenbergia flexuosa</i> (Hook. f. & Thoms.) Thulin					
1021		<i>Wahlenbergia marginata</i> (Thunb.) A. DC.					
1022	403 Asteraceae	<i>Acanthospermum hispidum</i> DC.	Chubukata				
1023		<i>Ageratum conyzoides</i> L.	Bhurandi				
1024		<i>Artemisia japonica</i> Thunb.	Davana				
1025		<i>Artemisia nilagirica</i> (C.B. Cl.) Pamp.	Dhor-davana	*			
1026		<i>Bidens biternata</i> (Lour.) Merr. & Sherff.					
1027		<i>Blumea axilaris</i> (Lam.) DC.					
1028		<i>Blumea eriantha</i> DC.	Buradi	*		E	
1029		<i>Blumea laciniata</i> (Roxb.) DC.					
1030		<i>Blumea malcolmii</i> (C.B. Cl.) Hook. f.	Buradi	*	*	E	
1031		<i>Blumea membranacea</i> DC.		*			
1032		<i>Blumea obliqua</i> (L.) Druce					
1033		<i>Blumea oxyodonta</i> DC.		*			
1034		<i>Blumea venkataramanii</i> Rolla Rao & Hemadri				E	
1035		<i>Caesulia steroids</i> Roxb.					
1036		<i>Conyza bonariensis</i> (L.) Cronq.					
1037		<i>Conyza stricta</i> Willd.		*			
1038		<i>Cyathocline lutea</i> Law ex Wight		*		E	LC
1039		<i>Cyathocline purpurea</i> (Buch-Ham. ex D. Don.) O. Ktze.		*		E	LC
1040		<i>Dicoma tomentosa</i> Cass.					
1041		<i>Echinops echinatus</i> Roxb.					
1042		<i>Eclipta prostrata</i> (L.) L.	Maka	*	*		
1043		<i>Elephantopus scaber</i> L.					
1044		<i>Emilia sonchifolia</i> (L.) DC.					
1045		<i>Erigeron sublyratus</i> DC.					
1046		<i>Glossocardia bosvallia</i> (L. f.) DC.				E	
1047		<i>Gnaphalium luteo-album</i> L. ssp. <i>luteo-album</i>		*			
1048		<i>Goniocaulon indicum</i> (Klein ex Willd.) C.B. Cl.	Kadkumbha			E	
1049		<i>Gynura angulosa</i> (Wall.) DC.		*			
1050		<i>Gynura bicolor</i> (Roxb. ex Willd.) DC.					
1051		<i>Kleinia grandiflora</i> (Wall ex DC.) N. Rani	Vandar roti				
1052		<i>Lagasca mollis</i> Cav.	Tharvad				
1053		<i>Laggera aurita</i> (L. f.) Bth. ex C.B. Cl.					
1054		<i>Lamprachaenium microcephalum</i> (Dalz.) Bth.	Bhurandi		*	E	
1055		<i>Launaea procumbens</i> (Roxb.) Ramayya & Rajagopal					
1056		<i>Launaea sarmentosa</i> (Willd.) Sch.-Bip. ex O. Ktze.					
1057		<i>Nanothamnus sericeus</i> T. Thoms.	Burand	*		E	
1058		<i>Pentanema cernuum</i> (Dalz.) Ling					
1059		<i>Pentanema indicum</i> (L.) Ling	Sonkadi				
1060		<i>Phyllocephalum ritchiei</i> (Hook. f.) Narayana				E	
1061		<i>Phyllocephalum scabridum</i> (DC.) Kirkman		*		E	

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1062		<i>Phyllocephalum tenue</i> (C.B.Cl.) Narayana			*		
1063		<i>Pluchea tomentosa</i> DC.		*			
1064		<i>Pulicaria angustifolia</i> DC.					
1065		<i>Senecio bombayensis</i> Balakr.	Sonaki	*	*	E	
1066		<i>Senecio dalzellii</i> C.B.Cl.	Sonaki			E	
1067		<i>Senecio edgeworthii</i> Hook. f.	Sonaki			E	
1068		<i>Senecio hewrensis</i> (Dalz.) Hook. f.	Sonaki			E	LC
1069		<i>Siegesbeckia orientalis</i> L.	Katampu				
1070		<i>Sonchus oleraceus</i> L.	Mhatari				
1071		<i>Sphaeranthus indicus</i> L.	Gorakhmundi	*			
1072		<i>Sphaeranthus senegalensis</i> DC.					
1073		<i>Spilanthus calva</i> DC.	Akkalkara		*		
1074		<i>Spilanthus paniculata</i> Wall. ex DC.	Akkalkara				
1075		<i>Synedrella nodiflora</i> (L.) Gaertn.					
1076		<i>Tricholepis amplexicaulis</i> C.B.Cl.	Dahan			E	
1077		<i>Tricholepis glaberrima</i> DC.			*	E	
1078		<i>Tricholepis radicans</i> (Roxb.) DC.	Dahan			E	
1079		<i>Tridax procumbens</i> L.	Ekdandi				
1080		<i>Vernonia anthelmintica</i> (L.) Willd.	Kale-jire				
1081		<i>Vernonia cinerea</i> (L.) Less.	Bhurandi				
1082		<i>Vernonia divergens</i> (Roxb.) Edgew.	Bhurandi	*			
1083		<i>Zinnia elegans</i> Jacq.					
1084	413 Pittosporaceae	<i>Pittosporum wightii</i> A. K. Mukherjee	Yekadi		*		
1085	416 Apiaceae	<i>Centella asiatica</i> (L.) Urban	Brahmi		*		
1086		<i>Heracleum grande</i> (Dalz. & Gibs.) P. K. Mukh.	Baphali	*		E	
1087		<i>Pimpinella adscendens</i> Dalz.	Gajra			E	
1088		<i>Pimpinella heyneana</i> (Wall. ex DC.) Kurz.		*	*		
1089		<i>Pimpinella monoica</i> Dalz.		*			
1090		<i>Pimpinella tomentosa</i> Dalz. ex C.B.Cl.				E	
1091		<i>Pimpinella wallichiana</i> (Miq. ex Holhen.) Gandhi				E	
1092		<i>Pinda concanensis</i> (Dalz.) P.K. Mukh. & Constance			*	E	
1093		<i>Trachyspermum ammi</i> (L.) Sprague	Ranova				
1094		<i>Trachyspermum roxburghianum</i> (DC.) Craib.		*			

‘*’-Indicates the report of taxa by Jana. (= Janardhanan 1966) and Pande = (Pande 2005), ‘**’ indicate that the taxon not observed during present study. ‘Endemism’: as per Singh et al. (2015). Status of Taxon: as per ‘IUCN’ (2016).

Table 2. The list of cultivated / introduced taxa recorded in the BWS.

	Family	Botanical names	Common name	Jana.	Pande
1	11 Piperaceae	<i>Piper longum</i> L. #			*
2	14 Magnoliaceae	<i>Magnolia champaca</i> (L.) Baill. ex Pierre. #	Sonchapha	*	
3	18 Annonaceae	<i>Annona reticulata</i> L. #	Ramphal		*
4		<i>Annona squamosa</i> L. #	Sitaphal		*
5	27 Acoraceae	<i>Acorus calamus</i> L. #	Vekhand		**
6	28 Araceae	<i>Amorphophallus paeoniifolius</i> (Dennst.) Nicols. #	Suran		
7		<i>Colocasia esculenta</i> (L.) Schott #	Alu		
8	72 Asphodelaceae (Xanthorrhoeaceae)	<i>Aloe vera</i> (L.) Burm. f. #	Korphad		*
9	74 Asparagaceae	<i>Agave americana</i> L. \$	Ghaypat		
10	103 Poaceae	<i>Eleusine coracana</i> (L.) Gaertn. #	Nachani		
11		<i>Oryza sativa</i> L. #	Bhat		
12	106 Papaveraceae	<i>Argemone mexicana</i> L. \$	Bilayat	*	
13	140 Fabaceae (Caesalpinioideae)	<i>Bauhinia variegata</i> L. #	Kanchan		*
14		<i>Senna siamea</i> (Lam.) Irwin & Barneby #	Kashid		
15		<i>Senna uniflora</i> (Mill.) Irwin & Barneby \$			
16	140 Fabaceae (Mimosoideae)	<i>Prosopis juliflora</i> (Swartz) DC. #			
17	140 Fabaceae (Papilionoideae)	<i>Phaseolus lunatus</i> L. #	Doublebean		
18		<i>Sesbania grandiflora</i> (L.) Poir. #	Hadaga		*
19		<i>Vigna aconitifolia</i> (Jacq.) Marechal #	Matki		
20	207 Euphorbiaceae	<i>Ricinus communis</i> L. #	Erand	*	*
21	211 Phyllanthaceae	<i>Phyllanthus acidus</i> (L.) K. Skeels #	Awala		
22	215 Lythraceae	<i>Punica granatum</i> L. #	Dalimb		*
23	216 Onagraceae	<i>Oenothera rosea</i> Ailton. #		**	
24	218 Myrtaceae	<i>Eucalyptus globulus</i> Labill #	Nilgiri		
25		<i>Psidium guajava</i> L. #	Peru		*
26	243 Meliaceae	<i>Melia azedarach</i> L. #	Bakan limb		*
27	256 Moringaceae	<i>Moringa oleifera</i> Lam. #	Shevga		
28	297 Amaranthaceae	<i>Alternanthera paronychioides</i> St.- Hil. \$			
29		<i>Alternanthera pungens</i> Kunth. \$	Chibukata		
30		<i>Alternanthera sessilis</i> (L.) R. Br. ex DC. \$			
31	317 Cactaceae	<i>Opuntia ficus-indica</i> Mill. \$	Nivdung		
32	356 Apocynaceae (Apocynoideae)	<i>Plumeria alba</i> L. #	Pandara chapha		
33	356 Apocynaceae (Asclepiadoideae)	<i>Cascabela thevetia</i> (L.) Lippold #	Bitti		
34	356 Apocynaceae (Rauvolfioideae)	<i>Tabernaemontana alternifolia</i> L. #	Tagar		
35	360 Solanaceae	<i>Nicandra physalodes</i> (L.) Gaertn. \$	Popati		
36	366 Oleaceae	<i>Nyctanthes arbor-tristis</i> L. #	Parijat		*
37	371 Scrophulariaceae	<i>Verbascum chinense</i> (L.) Sant. #	Kutaki		
38	377 Acanthaceae (Acanthoideae)	<i>Justicia adhatoda</i> L. #	Adulsa		*
39	378 Bignoniaceae	<i>Spathodea campanulata</i> P. Beauv. #			*
40		<i>Tecoma stans</i> (L.) Juss. ex Kunth. #			
41	382 Verbenaceae	<i>Lantana camara</i> L. var. <i>aculeata</i> (L.) Moldenke \$	Tantani		
42	383 Lamiaceae	<i>Clerodendrum chinense</i> (Osbeck) Mabb. #		**	

	Family	Botanical names	Common name	Jana.	Pande
43	403 Asteraceae	<i>Blainvillea acmella</i> (L.) Philipson \$			
44		<i>Cosmos bipinnatus</i> Cav. \$			
45		<i>Eupatorium adenophorum</i> Spreng. \$			
46		<i>Flaveria trinervia</i> (Spr.) C. Mohr \$			
47		<i>Parthenium hysterophorus</i> L. \$	Congress		
48		<i>Xanthium indicum</i> Koen. \$	Landaga		

'#' Indicates cultivated/planted taxa; '\$' indicate introduced taxa. '**' - Indicates the report of taxa by Jana. (= Janardhanan 1966) and Pande = (Pande 2005), '**' indicate that the taxon not observed during present study.

Table 3. The families with more than 20 representative taxa in BWS.

Rank	Family	Genera	Species and infraspecific taxa	Endemic taxa
1	Poaceae	65	138	33
2	Fabaceae	50	135	19
3	Asteraceae	38	62	18
4	Cyperaceae	11	46	03
5	Malvaceae	17	43	04
6	Acanthaceae	24	40	16
7	Apocynaceae	27	36	06
8	Rubiaceae	20	35	08
9	Lamiaceae	19	35	04
10	Orchidaceae	14	27	16
11	Euphorbiaceae	10	26	02
12	Convolvulaceae	9	24	04
Total	12	304	647	133

is about 25.32% of the total recorded wild species of the BWS during the present study. Out of 291 reported by Pande (2005) a total of nine species have not been observed in the sanctuary during the present study; of which six species, viz., *Caesalpinia digyna* Rottler, *Cajanus albicans* (Wight & Arn.) Maesen., *Casearia ovata* (Lam.) Willd., *Smilax guianensis* Vitman, *Syzygium gardneri* Thwaites, and *S. kanarensis* (Talbot) Raizada are also not reported yet from Maharashtra State by any of the taxonomists. *Smilax guianensis* Vitman is distributed in the South American region and not reported from other parts of the world. Pande (2005) might have mistakenly included this name. After verification of the available specimens of this genus it is confirmed that this species does not occur in the sanctuary, and therefore it is not included in the present study. These six taxa were also not recorded by Janardhanan (1966); therefore the occurrence and identity of these taxa needs further revision, therefore they are excluded from the present list of taxa occurring in the sanctuary.

The sanctuary has about 19.84% endemic taxa of the

total angiosperms (1,094) recorded from it. Ahmedullah & Nayar (1987) reported 1,932 endemic taxa for peninsular India, of which 694 were reported to be found in Maharashtra State (Mishra & Singh 2001). There are 4,303 endemic angiosperms in India (Singh et al. 2015) of which peninsular India has 2,592 taxa, while 2,116 endemics are in the Western Ghats. During the present study, 217 Indian endemic taxa were recorded in BWS, which is 5% of the total Indian endemics. A total of 58 genera are reported to be endemic to India (Singh et al. 2015); out of that 15 (25.86%) genera are represented by one or more taxa in the sanctuary during the present study. This is a very significant number as this small sanctuary harbours such an extent of endemic taxa. These facts represent the richness of flora in BWS.

Out of 1,094 taxa, 53 (4.85%) are found to be categorised by IUCN (2016) under different categories. Accordingly, the sanctuary has one Endangered (EN) taxon, Vulnerable (VU) – 04, Low Risk (LR) – 01, Data Deficient (DD) – 01, and 46 taxa as Least Concern (LC). Thus, with respect to occurrence of endemic as well as

threatened taxa, BWS is very rich and plays a significant role in their conservation.

Composition of flora and different microclimates are determined by growth forms (habit) of the taxa at a particular habitat. Therefore, habit-wise analysis of plant taxa in the sanctuary is also important. Herbs dominate flora with 56.03% (613 taxa) followed by 16.73% (183 taxa) trees, 15.63% (171) shrubs, 9.96% (109) climbers and 1.65% (18 taxa) are epiphytes. Trees and shrubs are dominant in the sanctuary, constituting major vegetation of it and supporting diverse wildlife. Continuous canopy of semi-evergreen and evergreen forests is essential for survival of the giant squirrel and other arboreal faunal elements. The tropical regions of the world generally have more diversity of tree species as compared to subtropical forests. The diversity of trees in BWS is quite good considering the total geographic area 130.78km².

Compared to available data from other protected areas of India, BWS represents a high number of angiosperm taxa. A total of 722 species of flowering plants were reported from Bhagwan Mahavir (Molem) National park located in Goa (240km²) (Datar & Lakshminarasimhan 2013); 923 species from Anshi National park, Karnataka (340km²) (Punekar & Lakshminarasimhan 2011) and 1,339 species and 16 subspecies from Rajiv Gandhi National Park, Karnataka (642km²) (Manikandan & Lakshminarasimhan 2013). All these protected areas cover significantly larger geographic areas as compared to the BWS, and still the number of taxa recorded in the BWS is higher. The protected areas which are a little distantly located are also compared and found that Mudumalai Sanctuary (321km²), Tamil Nadu, which is a part of the southern WG having evergreen and semi-evergreen forests has a total of 157 tree species (Suresh et al. 1996). The Nallamalai Hill ranges in the Eastern Ghats of Andhra Pradesh having a total area of 6,740km² have 281 (18.2%) tree species out of 1,541 total angiosperms (Reddy et al. 2008). In this perspective BWS has a significant richness of tree species also.

Besides the naturally occurring plant taxa, total 48 planted / introduced taxa are also recorded. These belong to 28 families and 44 genera. Of these, about 20 taxa are weeds. Some of the weed species are invasive in the sanctuary and are fast encroaching new habitats, while others show an increasing trend in their populations. These invasive species are causing an imbalance in the natural set of vegetation in BWS. Fast spreading species are *Lantana camara*, *Hyptis suaveolens*, *Eupatorium adenophorum*, *Argemone mexicana*, *Alternanthera* spp. and *Cosmos bipinnatus*. *Lantana camara* and *Eupatorium adenophorum* are encroaching shrubby vegetation and

understorey of the forests, while *Hyptis suaveolens* and *Cosmos bipinnatus* are replacing the *Impatiens-Senecio-Smithia* ground vegetation along the paths and slopes. *Alternanthera* spp. are replacing the populations of *Nanothamnus sericeus* from plateaus, which is a serious threat, as it is an endemic and an endangered taxon. Increasing trend of populations or increase in the extent of occurrence has been observed for some weed species such as *Trianthema portulacastrum*, *Flaveria trinervia*, *Blainvillea acmella*, *Nicandra physalodes* and *Lagasca mollis*. All these invasive weed species cause a serious threat to the native flora of BWS.

It is significant to note that, the evergreen forest patches as well as plateau vegetation are highly sensitive to human interference in the form of increased demand for firewood and grazing. Trampling by the pilgrims and cattle are added hazards due to an increasing number of tourists and pilgrims. Similar results were also recorded by Pande (2005). In the document of MoEFCC, the Ecological Status of Northern Western Ghats, it is also emphasized that the Bhimashankar forests are under very high stress of pilgrimage, tourism and the garbage generated by these activities (Anonymous 2010). Both degradable and non-degradable garbage pollute the water sources and also eliminate the ground flora at some places in the sanctuary.

CONCLUSION

The present investigation provides first hand comprehensive information on the floristic diversity of angiosperms of BWS. The number of species is quite good in terms of the geographic area of the sanctuary; comprising 19.84% endemic taxa which are about 5.04% of total Indian endemics. The varied topography supports this extent of angiosperm diversity in BWS. Rahangdale & Rahangdale (2014) reported that, more diversity is associated to the areas having more diverse topographical features constituting varied type of microhabitats supporting different life forms. The results of the present study are also in corroboration with the previous study of two locations in the northern Western Ghats adjoining the Bhimashankar Wildlife Sanctuary.

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Marathi Abstract:

भासांशः भिमाशंकर अभयारण्य हे उत्तर पश्चिम घाटाच्या माथ्यावर पुणे व ठाणे जिल्ह्यांच्या हद्दीत वसलेले आहे. हे अभयारण्य महाराष्ट्राचा राज्य प्राणी “शेकरू”च्या संवर्धनासाठी ऑक्टोबर १९८५ साली महाराष्ट्र शासनाकडून अधिष्ठाित करण्यात आले. जरी हे अभयारण्य पश्चिम घाटातील महत्वाचे व संरक्षित भूभाग असले तरी त्याच्या संपूर्ण वानभशास्त्रीय अभ्यासाचा अभाव होता म्हणून; भिमाशंकर अभयारण्याचा वानभशास्त्रीय अभ्यास सन २००९ ते २०१६ या कालखंडात करण्यात आला. या खंबील वानभशास्त्रीय अभ्यासातून अनेक दिवून आले की, अभयारण्यात वनप्रकार व सुक्ष्म वैशिष्ट्यपूर्ण अधिवासांची विविधता आहे. मुख्य वनप्रकारांमध्ये पश्चिम उपठणकटिबंधीय रूंदपर्णी डोंगराळ वनांपासून ते आर्द्र पानगळीची वने आहेत, व काही छोट्या भागांत नद्वहवित वने आहेत. ह्या अभयारण्यात एकूण ११४२ वनस्पति प्रजाती व उपजाती आहेत ज्या ६१९ जातीत व १२४ कुळांत विभागल्या गेल्या आहेत. ह्यापैकी १,०९४ वनस्पति बथानिक असून त्या ५८६ जातीत व ११८ कुळांतील आहेत. उरलेल्या ४८ प्रजातीपैकी ३४ लागवड केलेल्या व १४ प्रजाती आयातित आहेत. नद्वर सर्व प्रजातीचे वर्गीकरण ए.पी.जी. ४ प्रमाणे केलेले आहे. ह्या बथानिक १,०९४ वनस्पतिपैकी २० वनस्पति प्राथमिक आवृत्तखिजी (मॅनोलिडस) गटातील, २८५ एकद्वलखिजी (मोनोकॉटस) गटातील, १ वनस्पति बिबंटोफायलेलस आणि ७८८ वनस्पति ह्या द्विद्वलखिजी (युडायकॉटस) गटातील आहेत. ह्या वनस्पतिपैकी एकूण २१७ (१९.८४%) प्रजाती भारतीय बथानखळ वनस्पतिपैकी आहेत, ज्या भारतीय बथानखळ वनस्पतिच्या (४३०३) ५.०४% आहेत. ह्यातील ५३ वनस्पति आय.यु.सी. एन. च्या निकषानुसार विविध भयवस्त वनस्पतिच्या गटांत मोडतात. एकंदरीत, भिमाशंकर अभयारण्य भौगोलीक क्षेत्रफलाने छोटे असले तरी ते संपुष्प वनस्पतीच्या विविधतेचे मोठे आगार आहे.





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Article

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-- Thomas Edward Marler & Gil Naputi Cruz, Pp. 10565–10570

A new record of Harlequin Shrimp (Malacostraca: Decapoda: Palaemonidae: *Hymenocera picta* Dana, 1852) in the southern Mexican Pacific Reefs

-- Omar Valencia-Mendez, Andres Lopez-Perez, Betel Martinez-Guerrero, Virgilio Antonio-Perez & Eduardo Ramirez-Chavez, Pp. 10571–10576

First report of soft coral *Sarcophyton birkelandi* Verseveldt, 1978 (Anthozoa: Alcyonacea) in Indian waters from Andaman Islands

-- Seepana Rajendra, C. Raghunathan, Tamal Mondal & K. Venkataraman, Pp. 10577–10580

First records of *Zinaspia todara distorta* de Nicéville, 1887 and *Arhopala rama ramosa* Evans, 1925 (Lycaenidae: Theclinae) butterflies in Bangladesh

-- Tania Khan, Mohammad Quamruzzaman Babu, Mohammad Ashraf UI Hasan, Tahsinur Rahman Shihan & Prosenjit Debbarma, Pp. 10581–10584

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Wintering of the Grey-headed Lapwing *Vanellus cinereus* (Aves: Charadriiformes: Charadriidae) in Kerala, India

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Additional record and conservation measures of *Ceropegia odorata* Nimmo ex J. Graham from Gujarat State, India

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A checklist of butterflies (Insecta: Lepidoptera) from Taleigao Plateau, Goa, India

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A rare sighting of the Long-tailed Duck *Clangula hyemalis* (Linnaeus, 1758) (Aves: Anseriformes: Anatidae) over a four-week period in northwestern India: first detailed scientific documentation in 73 years

-- Pushpinder S. Jamwal, Pankaj Chandan & Rohit Rattan, Pp. 10631–10632