



Plant diversity of 'Lachundi/Lalchandi sacred grove' of Purandar tehsil, Dist. Pune, Maharashtra, India

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ABSTRACT

The present study deals with plant diversity of the 'Lachundi Devi/Lalchandi devi sacred grove of Pagewadi village, Purandar tehsil belonging to Pune District. The present scared grove is not reported by any researcher till date. The total area of the sacred grove is one hectare (10,000 Sq. M.). A rivulet consisting flowing water in rainy and winter season and stagnant water in summer makes the sacred grove significant. In present scared grove we found 140 angiospermic species. These 140 species belonging to 124 genera under 49 families. Sacred grove consists mostly herbaceous species, ephemerals followed by tree species, shrubs and climbers. Among 140 species, flowering and fruiting occur throughout the year in 14 species. *Delphinium malbaricum* (Huth) Munz., *Argyria cuneata* Ker-Gawl. and *Vigna khandalensis* (Sant.) R & W. belongs to threatened category.

Keywords: Lachundi/Lalchandi sacred grove, Plant Diversity, Purandar tehsil, Pagewadi.

INTRODUCTION

The sacred grove has a long and diverse history of our ancient belief in natural power and our cultural linkage with our environment. It is believed that these sacred vergin forests date back to thousands of years when human society was in a primitive state (Gadgil and Vartak 1975). The sacred grooves are the patches of forests dedicated to a local deity. They have a great significance from conservation point of view as the religious beliefs forbid cutting of the trees. Sacred groves maintain the diversity of plant forms. It was the oldest forms of respect for preserving the nature. Since the sacred groves have been maintained as natural forest, they act as a treasure house for endemic, endangered and rare plants (Bhagat, 2018). Sacred groves provide the inextricable link between present society to the past in terms of biodiversity, culture, religious and ethnic heritage (Khan *et al.*, 2008).

In India, sacred groves are found almost in all states with differing numbers and areas. Around 14000 sacred groves have been reported from all over India, which act as reservoirs of rare fauna, and more often rare flora, amid rural and even urban settings. Maharashtra has 2800 sacred groves covering approximately 35,700 km² of area, most of which are located in the Western Ghats or Konkan and harbour about 800 species of plants (Deshmukh, 1999). India has a rich cultural inheritance of dedicating groves and rivers to Gods and Goddesses. The sacred grooves are the patches of forest fragments which are communally protected having great significant religious connotation for the protecting community. They have a great significance from conservation point of view as the religious beliefs forbid cutting of the trees. They exist in various sizes from small trees to a few square kilometres. They have been preserved since 2500

years, when agriculture was first introduced in the northern western ghats (Gadgil and Vartak, 1975). The Sahyadri hills are well known for their magnificent views of high mountains, rugged terrain, deep ravines and rich biodiversity. The forests of Sahyadri hills are speckled with number of sacred grooves. They are the remnant's of pristine forest patches of our past, locally called as 'Dev-rahasti', or 'Devache Ban'. It has immense global significance for conservation of biodiversity (Bhagat, 2018).

One of the most important traditional uses of sacred groves was that it acted as a repository for various ayurvedic medicines. Sacred groves are scattered all over the Maharashtra state and are referred by different names in different districts. Pune district consists fourteen tehsils and each tehsil consists variable number of sacred groves.

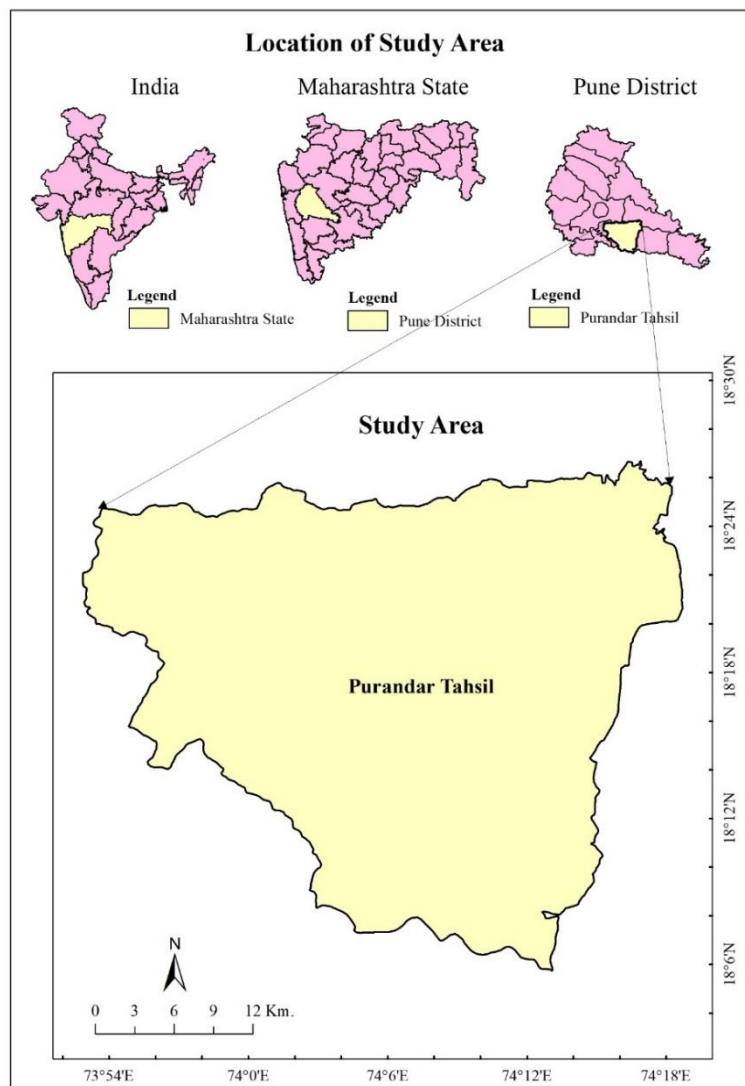


Fig. 1: Map of India, Maharashtra, Pune district and Purandar tehsil



Fig. 2: Location showing Lahundi/Lalchandi sacred grove (Purandar tehsil, Dist. Pune, M.S., India.



Fig.3: Lachundi /Lalchandi Devi temple and surrounding area, Pagewadi Tal. Purandar, Dist. Pune., M.S., India.



Fig. 4: Lachundi/Lalchandi Devi

Sacred grove is located at Pagewadi in Purandar tehsil of Pune district, Maharashtra **Fig.1** Due to the presence of sacred groves (Nishnai and Lachundi/Lalchandi) around, flora is well preserved. Among the two sacred groves present in the tahsil, one of it is named after Goddess Lachundi, located in a valley while other sacred grove is present on an elevated land, in the same zone named after Goddess, Nishnai devi. Lachundi sacred grove occupies the geographical coordinates between N 18° 15.715' to E0 74° 01. 718' · The present scared grove is not reported by any researcher till date. The total area of the sacred grove is one hectare (10,000 Sq. M.) **Fig. 2.** A rivulet consisting flowing water in rainy and winter season and stagnant water in summer makes the sacred grove

significant. A village Pagewadi is very close to Lachundi/ Lalchandi sacred grove. The local villagers of Pagewadi have conserved the forest by avoiding cuttings of the trees.

MATERIALS AND METHODS

GPS Model GARMIN 72H (Geographical Position System), Camera (SONY 20.4 Megapixels, 50X digital zoom, CORP DSC -HX300, 3.6 V, 4517842), Ecofriendly bags, Oil Paint to mark quadrats, Brush, Cloth, Rope, String, Nails, P.V.C. rods locked in a single frame of 1m X 1m size, (04), Notebook, Field Diary, Pen, Pencil, Eraser, Ruler, Paper sheets, Secateurs, Sickle, Diggers, Stick, Scale-Tape, Special Folders, Field Press, Old Newspapers /Blotting Papers, Transparent Cellophane tape, Tags, Dissecting and Compound Microscopes, Well equipped Dissection box, Big lenses, Floras, Field guide book, Herbarium sheets etc.

Visits to Lachundi sacred grove were arranged frequently from the year 2014 to 2020. The present sacred grove was visited during winter, summer as well as in monsoon season. Very common plants were

collected for herbarium preparation purpose. A permission for the collection of common plant species is obtained from Maharashtra State diversity board, Nagpur office. Rare plants were photographed. Phytosociological study was also carried out for both herbaceous as well as woody vegetation, which includes percentage frequency, frequency class, relative frequency, abundance, density, relative density and Importance value index.

RESULTS AND DISCUSSIONS

Among 140 angiospermic species from 124 genera under 49 families are documented from the sacred grove. Among 140 species, 118 were wild while 22 species were cultivated. Indigenous species were 97 while exotic were 43. Among 140 plant species, 118 species belongs to Dicotyledonae while 22 belongs to Monocotyledonae. The floristic data has been presented in **Table 1**. And the analysis of plant families with respect to number of species is presented in **Table 2**. *Delphinium malbaricum* (Huth) Munz., *Argyria cuneata* Ker-Gawl. and *Vigna khandalensis* (Sant.) R & W. belongs to threatened category.

Table 1: Analysis of Plants with respect to Botanical name, Common name, Habit, Family, Flowering and Fruiting data:

Botanical name	Common name	Hb.	Family	Flowering
<i>Abrus precatorius</i> L.	Gunj	C	Malvaceae	Aug.-Mar.
<i>Acacia leucophloea</i> (Roxb.) Willd.	Hivar	T	Mimosaceae	Aug.-Feb.
<i>Acanthospermum hispidum</i> DC.	Landga	H	Asteraceae	Aug.-Dec.
<i>Achyranthes aspera</i> L. var. <i>porphyristachya</i> Hook.f.	Aghara	H	Amaranthaceae	Sept.-Oct.
<i>Aegle marmelos</i> (L.) Correa.	Bel	T	Rutaceae	Apl.-Nov.
<i>Alternanthera sessilis</i> (Linn.) DC.	Bechkusal	H	Amaranthaceae	All
<i>Alysicarpus rugosus</i> (Wild.) DC.	Chain pea	H	Fabaceae	Sept.-Jan.
<i>Alysicarpus vaginalis</i> (Linn.) DC.	Baffalo-clover	H	Fabaceae	Oct.-Jan.
<i>Anisochilus carnosus</i> (Linn.) Wall.	Kapurli	H	Lamiaceae	June-Nov.
<i>Annona reticulata</i> L.	Ramphal	T	Annonaceae	July-Nov.
<i>Annona squamosa</i> L.	Sitaphal	T	Annonaceae	Mar.-Aug.
<i>Apluda mutika</i> L.	Tambat	H	Poaceae	Oct.-May
<i>Argyria cuneata</i> Ker-Gawl.	Mahalungi	C	Convolvulaceae	Sept.-Dec.
<i>Aristida funiculata</i> Trin & Rupr.	Bhuti	H	Poaceae	Sept.-Dec.
<i>Azadirachta indica</i> A. Juss.	Kadi-limb/Neem	T	Meliaceae	June-Mar.
<i>Bauhinia racemosa</i> Lamk.	Apta	T	Caesalpiniaceae	Apl.-Dec..
<i>Bauhinia variegata</i> L.	Chamol	T	Caesalpiniaceae	All
<i>Biophytum sensitivum</i> (L.) DC.	Lajwanti	H	Oxalidaceae	Aug.-Apl.
<i>Bombax ceiba</i> L.	Silkcotton	T	Bombacaceae	Feb.-June
<i>Bridelia retusa</i> (L.) Spreng.	Asana	T	Euphorbiaceae	June-Dec.
<i>Buchnera hispida</i> Buch.Ham.	Karanji	H	Scrophulariaceae	Sept.-Jan.
<i>Caesulia axillaris</i> Roxb.	Maka	H	Asteraceae	Sept.-Feb.
<i>Carissa congesta</i> Wt.	Karvand	S	Apocynaceae	Jan.-May
<i>Cassia tora</i> Linn.	Takala	H	Caesalpiniaceae	Aug.-Feb.
<i>Cassia uniflora</i> Mill. Non Spreng.		H	Caesalpiniaceae	Aug.-Nov.
<i>Catunaregam spinosa</i> (Thunb.) Tirveng.		S	Rubiaceae	Unknown
<i>Celosia argentea</i> L.	Kombada	H	Amaranthaceae	Aug. -Feb.

Table 1: Continued...

Botanical name	Common name	Hb.	Family	Flowering
<i>Cenchrus americanus</i> (L.) Morrone.	Bandra	H	Poaceae	July-Nov.
<i>Chrysopogon fulvus</i> (Spr.) Chiov.	Gogar	H	Poaceae	Sept.-Dec.
<i>Clematis heynei</i> M.A.Rau.	Ranjai	C	Ranunculaceae	Sept.- Jan.
<i>Cleome simplicifolia</i> (Cambess.) Hook.fil. & Thoms.	Gawti-tilwan	H	Capparaceae	Sept.-Apl.
<i>Cocculus hirsutus</i> (L.) Diels.	Vasanvel	C	Menispermaceae	Jan.- Mar.
<i>Combretum indicum</i> (L.) C. C. H. Jongkind	Madhu-malti	C	Combretaceae	All
<i>Commelina forsskalaei</i> Vahl.	Kena	H	Commelinaceae	July-Dec.
<i>Cordia dichotoma</i> Forst. F.	Bhokar	T	Boraginaceae	Feb.-June
<i>Crotalaria hebecarpa</i> (DC.) Rudd.	Godhadi	H	Fabaceae	Aug.-Feb.
<i>Crotalaria sp</i>		H	Fabaceae	Feb.-June
<i>Crotalaria juncea</i> Linn.	Tag	H	Fabaceae	Nov.-Jan.
<i>Cryptolepis buchanani</i> Roem. Et. Scult.	Setakarli	C	Asclepiadaceae	All
<i>Cucumis maderaspatanus</i> L.	Chirati	H	Cucurbitaceae	July-Oct.
<i>Cyanthillium cinereum</i> (L.) H. Rob.	Sahadevi	H	Asteraceae	All
<i>Cynodon dactylon</i> (Linn.) Pers.	Harli	H	Poaceae	Aug.-Nov.
<i>Cynotis cristata</i> (Linn.) Schult. F.	Nabhali	H	Commelinaceae	June-Nov.
<i>Dactyloctenium aegypticum</i> (L.) Willd.		H	Poaceae	Aug.-Feb.
<i>Dalbergia latifolia</i> Roxb.	Pendgul	T	Fabaceae	Jan.-Feb.
<i>Datura metel</i> Linn.	Kala-dhotra	H	Solanaceae	Sept.-Dec.
<i>Delphinium malabaricum</i> (Huth) Munz.	Nilambari	H	Ranunculaceae	Aug.- Nov.
<i>Dichanthium annulatum</i> (Forsk.) Stapf.	Marvel	H	Poaceae	Oct.-Mar.
<i>Dichanthium caricosum</i> (Linn.) Camus.	Jetare	H	Poaceae	Sept.-Dec.
<i>Dichrostachys cinerea</i> (L.) Wight & Arn.	Velatur	S	Mimosaceae	Aug.-Dec.
<i>Digitaria bicornis</i> (Lam.) R & S EX.Loud.		H	Poaceae	Aug.-Dec.
<i>Dioscorea bulbifera</i> Linn.	Karanda	C	Discoreaceae	July-Mar.
<i>Diplocyclos palmatus</i> (L.) Heffrey	Shivling	C	Cucurbitaceae	Aug.-Sept.
<i>Dragea volubilis</i> (L.F.)Stapf.	Abri	S	Asclepiadaceae	Apl.-Feb.
<i>Echinchloa colona</i> (Linn.) Link.	Samak	H	Poaceae	July-Feb.
<i>Echinops echinatus</i> Roxb.	Utanti	H	Asteraceae	Sept.-Jan.
<i>Eragrostis cilianensis</i> (All.) Link.		H	Poaceae	Aug.-May
<i>Eragrostis uniolooides</i> (Retz.) Nees.	Chimandara	H	Poaceae	Aug.-Feb.
<i>Eucalyptus globosus</i> Labill.	Neelgiri	T	Myrtaceae	Oct.-May
<i>Euphorbia hirta</i> Linn.	Dudhi	H	Euphorbiaceae	July.-Dec.
<i>Euphorbia lingularia</i> Roxb.	Sabarkandi	S	Euphorbiaceae	Nov.-Apl.
<i>Ficus amplissima</i> Sm.	Payer	T	Moraceae	Apl.-Sept.
<i>Ficus arnottiana</i> var. <i>courtallensis</i> King.	Kadak- payer	T	Moraceae	Feb.-June
<i>Ficus benghalensis</i> Linn.	Wad	T	Moraceae	Apl.-June
<i>Ficus religiosa</i> Linn.	Pimpal	T	Moraceae	Mar.-Aug.
<i>Flacourtia indica</i> (Burm. fil.) Merr.	Bhenkal	S	Flacourtiaceae	Jan. -July
<i>Givotia moluccana</i> (L.) Sreem.	Akrot	T	Euphorbiaceae	All
<i>Glossocordia bosvallea</i> (Linn.f.) DC.	Patharsuva	H	Asteraceae	Aug.-Dec.
<i>Grewia asiatica</i> L.	Phalsi	T	Tiliaceae	Apl.-June
<i>Guizotia abyssinica</i> Cass.	Karal	H	Asteraceae	Sept.-Dec.
<i>Gymnosporia emarginata</i> (Willd.) Thw.	Hekel	S	Celastraceae	Sept.-Feb.
<i>Hemidesmus indicus</i> (Linn.) R.Br.	Anantvel	S	Asclepiadaceae	July-May
<i>Heteropogon contortus</i> (Linn.) Beauv.	Pandhri-sukal	H	Poaceae	Aug.-Feb.
<i>Impatiens balsamina</i> L.	Terda	H	Balsaminaceae	Aug.-Dec.
<i>Indigofera cordifolia</i> Heyne.	Bechka	H	Fabaceae	Aug.-Jan.
<i>Indigofera hendicaphylla</i> Jacq.	Creeping indigo	H	Fabaceae	July-Dec.
<i>Ipomea nil</i> (Linn.) Roth.	Nili-Pungli	C	Convolvulaceae	Aug.-Nov.
<i>Jatropha curcus</i> Linn.	Chandarjyoti	S	Euphorbiaceae	May-Aug.
<i>Justicia simplex</i> D.Don.	Lavender scallops	H	Acanthaceae	Oct.-Jan.
<i>Kyllinga bulbosa</i> P. Beauv.	Lavali	H	Cyperaceae	July-Sept.
<i>Lagascea mollis</i> Cav.	Tharwad	H	Asteraceae	All
<i>Lagerstroemia parviflora</i> Roxb.	Bondara	T	Lythraceae	June-Oct.
<i>Lannea coromandelica</i> (Houtt.) Merr.	Moya	T	Anacardiaceae	Jan.-June
<i>Lantana camara</i> Linn. var. <i>aculeata</i> Linn. Mold.	Tantani	S	Verbenaceae	All
<i>Lavandula bipinnata</i> var. <i>rothiana</i> O.Kuntze.	Gorea	H	Lamiaceae	Oct.-Feb.

Table 1: Continued...

Botanical name	Common name	Hb.	Family	Flowering
<i>Leucaena leucocephala</i> (Lam.) de Wit.	Subabul	T	Mimosaceae	All
<i>Leucas biflora</i> R.Br.	Jodiburumbi	H	Lamiaceae	Aug.-Apl.
<i>Leucas stelligera</i> Wall.	Goma	H	Lamiaceae	Nov.-Apl.
<i>Linum mysorensense</i> Heyne ex Wall.	Undri	H	Linaceae	Aug.-Jan.
<i>Lophopogon tridentatus</i> Roxb. Hook.		H	Poaceae	Aug.-Dec.
<i>Lysimachia arvensis</i> var. <i>caerulea</i> (L.) T & B		H	Primulaceae	Aug.-May
<i>Mangifera indica</i> Linn.	Amba	T	Anacardiaceae	Jan.-June
<i>Mitragyna parviflora</i> Roxb. Korth.	Kadam	T	Rubiaceae	All
<i>Moringa oleifera</i> Lam.	Shengul	T	Moringaceae	Jan.-Apl.
<i>Nanorrhinum incanum</i> (Wall.) Betsche		H	Scrophulariaceae	Sept.-Dec.
<i>Nicandra physalodes</i> (Linn.) Gaertn.	Ran-popti	H	Solanaceae	Sept.-Nov.
<i>Oldenlandia spec.</i>		H	Rubiaceae	Unknown
<i>Oplismenus burmannii</i> Retz. P. Beauv.	Yerwa	H	Poaceae	July-Feb.
<i>Oryza grandiglumis</i> (Döll) Prodoehl	Tandul	H	Poaceae	Sept.-Jan.
<i>Osyris wightiana</i> Wall. ex Wight	Popali	S	Santalaceae	Aug.-Apl.
<i>Oxalis corniculata</i> L.	Ambushi	H	Oxalidaceae	All
<i>Parasopubia delphinifolia</i> (L.) H.-P.Hofm. & Eb. Fisch.	Dudhali	H	Scrophulariaceae	July-Jan.
<i>Parkinsonia aculeata</i> L.	Vilayyati	T	Caesalpiniaceae	Apl.-Nov.
<i>Parthenium hysterophorus</i> L.	Gajar gavat	H	Asteraceae	All
<i>Pentanema indica</i> (L.) Ling.	Sonkadi	H	Asteraceae	Nov.-Feb.
<i>Plumbago zeylanica</i> Linn.	Chitrak	C	Plumbaginaceae	Mar.-Dec.
<i>Pulicaria wightiana</i> (DC.) Benth. Ex Clarke.		H	Asteraceae	Aug.-Nov.
<i>Pupalia lappacea</i> (L.) A.L.Juss.	Chikta	S	Amaranthaceae	Sept.-Feb.
<i>Rivea hypocrateriformis</i> (Desr.) Choisy.	Phangyel	C	Convolvulaceae	June-Sept.
<i>Rungia pectinata</i> (Linn.) Nees.		H	Acanthaceae	Oct.-Mar.
<i>Rungia repens</i> (Linn.) Nees.	Pittapapada	H	Acanthaceae	Nov.-Mar.
<i>Scleromitron tenelliflorum</i> var. <i>tenelliflorum</i>		H	Rubiaceae	July-Oct.
<i>Searsia mysorensis</i> (G. Don.) Moffett.	Amboni	S	Anacardiaceae	Aug.-Dec.
<i>Senecio edworthii</i> Hook.f.	Hiwali-sonki	H	Asteraceae	Aug.-Nov.
<i>Senegalia catechu</i> (L.f.) H.& M.	Khair	T	Mimosaceae	July-Feb.
<i>Senegalia torta</i> (Roxb.) Maslin, Seigler & Ebinger	Chilar	S	Mimosaceae	Feb.-Oct.
<i>Sesamum indicum</i> Linn.	Til	H	Pedaliaceae	Sept.-Oct.
<i>Sida acuta</i> Burm.f.	Tupkadi	S	Malvaceae	Sept.-Dec.
<i>Smithia bigemina</i> Dalz.	Lahan-kawla	H	Fabaceae	Aug.-Jan.
<i>Solanum galapagense</i> S.C. D. & P.	Tamatar	H	Solanaceae	All
<i>Spermacoce pusilla</i> Wall.		H	Rubiaceae	July-Oct.
<i>Spilanthes calva</i> DC.	Akkalkara	H	Asteraceae	Sept.-Jan.
<i>Striga densiflora</i> Benth.	Agya	H	Scrophulariaceae	Aug.-Jan.
<i>Stylosanthes fruticosa</i> (Retz) Alst.	Hamata	S	Fabaceae	Sept.
<i>Syzygium cumini</i> (Linn.) Skeels.	Jambul	T	Myrtaceae	Mar.-June
<i>Tagetes erecta</i> L.	Marigold	H	Asteraceae	Sept.-Dec.
<i>Tamarindus indica</i> Linn.	Chinch	T	Caesalpiniaceae	Feb.-May
<i>Tecoma stans</i> (Linn.) H.B.K.	Ghanti	H	Bignoniaceae	All
<i>Tectona grandis</i> Linn. f.	Sag	T	Verbenaceae	Aug.-Dec.
<i>Terminalia bellirica</i> (Gaertn.) Roxb.	Behada	T	Combretaceae	Mar.-Nov.
<i>Themeda triandra</i> Forssk.	Bunden	H	Poaceae	Sept.Feb.
<i>Tricholepis radicans</i> (Roxb.) DC.	Dhann	H	Asteraceae	Sept. & Feb.
<i>Triumfetta rhomboidea</i> Jacq.	Chikti	S	Tiliaceae	May-Oct.
<i>Vigna khandalensis</i> (Sant.) R & W.	Badmung	H	Fabaceae	Sept.-Oct.
<i>Vigna mungo</i> (L.) Hepper	Sona mug	C	Fabaceae	Sept.-Dec.
<i>Woodfordia fruticosa</i> (Linn.) Kurz.	Dhayti	S	Lythraceae	May-June
<i>Xanthium strumarium</i> L.	Shankeswar	H	Asteraceae	Jan.-May
<i>Xyris indica</i> L.	Dadumari	H	Xyridaceae	Oct.-Jan.
<i>Zizyphus mauritiana</i> Lamk.	Ber	T	Rhamnaceae	Sept.-Mar.
<i>Zornia diphylla</i> (Linn.) Pers.	Landgu	H	Fabaceae	Aug.-Oct.

Hb. = Habit, H: Herb, S: Shrub, T: Tree, C: Climber.

Table 2: Analysis of Plant families with respect to Number of Species.

Family/ Families	Total number of Families	Number of species
Poaceae	01	17
Asteraceae	01	15
Fabaceae	01	13
Caesalpinaceae	01	06
Rubiaceae, Mimosaceae, Euphorbiaceae	03	05 each
Amarathaceae, Lamiaceae, Moraceae, Scrophulariaceae	04	04 each
Acanthaceae, Anacardiaceae, Asclepiadaceae, Convolvulaceae, Solanaceae	05	03 each
Annonaceae, Combretaceae, Commelinaceae Cucurbitaceae, Lythraceae, Malvaceae, Myrtaceae, Oxaliadaceae, Ranunculaceae, Tiliaceae, Verbenaceae, Xyridaceae	12	02 each
Apocynaceae, Balsaminaceae, Bignoniaceae, Bombacaceae, Boraginaceae, Capparaceae, Celastraceae, Cyperaceae, Flacortiaceae, Linaceae, Meliaceae, Menispermaceae Moringaceae, Pedaliaceae, Plumbaginaceae, Primulaceae, Rhamnaceae, Rutaceae, Santalaceae	19	01 each
	Total number of families = 47	Total number of species = 140

Among the documented 140 species found at Lachundi sacred grove, 12 species were climbers, 79 herbs, 18 shrubs and 31 were tree species. **Fig.5**

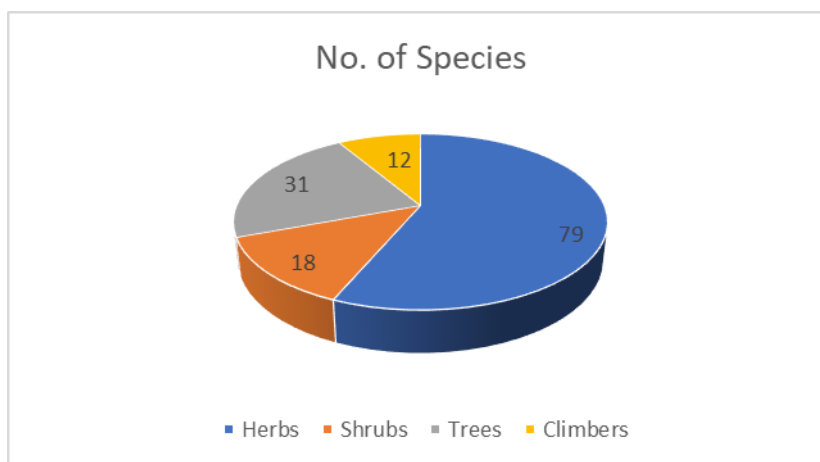


Fig. 5: Habit and No. of flowering plant Species:

Features of Woody Vegetation:

Following were the notable tree species found at the location. *Aegle marmelos* (L.) Correa., belongs to Rutaceae. It is also of Indian origin, called as Bel, tree having mythological, religious importance. April to November is the flowering and fruiting period. *Catunaregam spinosa* (Thunb.) Tirveng. It belongs to Rubiaceae, is called as Gela in local language. Tree in habit and is an african plant. The duration of flowering and fruiting is March to November.

Ficus arnottiana Miq., it is tree in habit, called as kadak payer. It is a member of family Moraceae. Flowering and fruiting period is February to June. *Givotia moluccana* (L.) Sreem, Akrot tree is a member of family Euphorbiaceae. It is of Asian origin. The latex is red in color. *Lagerstroemia parviflora* Roxb., tree belonging

to Lythraceae, indigenous to Asia. The local name is Bondara. Flowering and fruiting span is June to October. *Terminalia bellirica* (Gaertn.) Roxb., called as Behada tree, belongs to Combretaceae, Asia (South East) in origin. Flowering and fruiting span is March to November. *Tectona grandis* was abundant, followed by *Carissa congesta* Wt, *Lantana camara* Linn.

Features of Herbaceous vegetation:

As per Phytosociological studies, *Apluda mutica* Linn. and *Dichanthium annulatum* (Forsk.) Stapf. showed highest percent frequency and relative frequency followed by *Aristida funiculate* Trin & Rupr. The most abundant species was *Echinchloa colona* (Linn.) Link. The maximum IVI was noted for *Apluda mutica* Linn. *Dichanthium annulatum* (Forsk.) Stapf., *Echinchloa colona* (Linn.) Link.

Table 3: Phenological studies of the Lachundi/Lalchandi sacred grove

Month	Jan.	Feb.	Mar.	Apl.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Through out year
Species Number	08	06	05	07	03	06	16	33	28	08	05	01	14

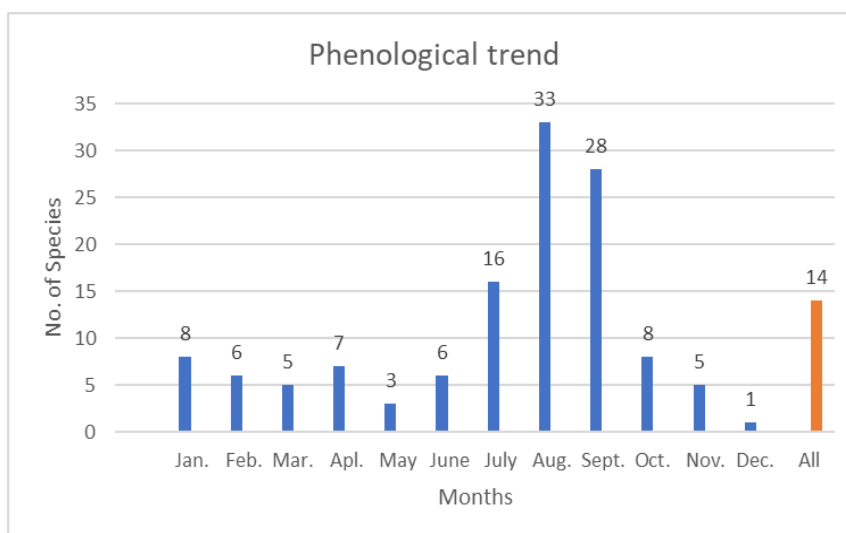


Fig. 6: Phenological trend observed at Lachundi /Lalchandi sacred grove.

The phenological surveys were carried out. Among 140 species, flowering and fruiting occur throughout the year in 14 species. The flower and fruit formation occur in August and lasts for few months in 33 species. The month wise number of plants in flowering and fruiting are displayed in following table. The maximum number of plants in flowering and fruiting period were documented for August and September.

CONCLUSION

The documentation of the present plant diversity study of the Lachundi/Lalchandi sacred grove will help in conservation prioritization to planners and protectors. The present data creates public awareness. Identification of endemic as well as threatened plant species shall effectively protect the plant diversity of Lachundi/Lalchandi sacred grove. The present data will be an addition to the plant diversity of Maharashtra and subsequently to India.

Conflict of interest: The authors declare that they have no conflict of interest.

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