



# Floristic Study on Angiosperms in Lalthane and

# Vishrampur village, Palghar Tehsil, Thane

# District, Maharashtra, India.

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**Abstract:** - This biodiversity assessment was conducted in Lalthane and Vishrampur village, located in Palghar Tehsil, Thane District, Maharashtra, India, within the Western Ghats region. The primary objective was to evaluate the region's floral biodiversity and ecological significance. A comprehensive field survey documented plant species diversity, distribution, and ecological characteristics across various habitats. Each encountered species was taxonomically identified, and data on abundance, habitat preference, and ecological interactions were collected. Species diversity was quantified using the Simpson's Index, Shannon-Wiener Index, Pielou's Index, Fisher's alpha and Menhinick's Index. Endemic and rare species were identified, underscoring the area's ecological importance. Variations in species abundance and distribution among altitudinal classes may be attributed to factors like resource availability, habitat overlap, fragmentation, land area, and human or biotic disturbance.

**Keywords:** Biodiversity assessment, Lalthane and Vishrampur villages, Western Ghats region, survey, species diversity, taxonomically identified

**Introduction:** - Floristic diversity includes the range and variability of plant species within a specific area. It is reference to the number of different types or taxa present in that region or group. This diversity can be assessed at various levels, from global diversity to specific ecosystems, communities, species, populations, individuals, and even genetic variations within a single organism. (12) These investigations have enriched humanity's understanding of economically valuable and medicinal plants, as angiosperms are essential for human existence, providing food, medicine, shelter, clothing, and other vital resources. (3)

### Methodology: -

**Selection of study area:** Lalthane and Vishrampur villages are nestled in close proximity to the historic Tandulwadi fort, located within the Palghar Tehsil of Thane District in the state of Maharashtra, India. This particular site was chosen as the focal point of the study due to its rich and varied topography, which presents a unique opportunity for ecological research and exploration.



Figure No.1 Reserved Forest map of Palghar.

**Field Surveys**: This survey involved systematic observations and data collection, focusing on various habitats and ecosystems to ensure a thorough representation of the local flora. During the course of the survey, open-ended discussions were facilitated with knowledgeable individuals, including local experts.

**Taxonomic Identification:** During the research project on floristic diversity in a local ecosystem, plant specimens were carefully collected and brought back to the laboratory for taxonomic identification. Using traditional taxonomic keys, field guides, and seeking guidance from experienced botanical specialists, each specimen was meticulously examined and classified to determine their scientific names and characteristics with help the of floras.

**Diversity Analysis:** In our comprehensive study on the flora's biodiversity, we conducted a thorough analysis that encompassed various aspects of species distribution and community structures. To quantify the level of biodiversity within the research region, we employed diverse diversity indices, including the renowned Simpson's Diversity Index, Wiener Index, Pielou's Index, Fisher's alpha and Menhinick's Index.

### **Result and Discussion: -**

SR. NO	BOTANICAL NAME	COMMON NAME	FAMILY	HABIT	TAXONOMIC DESCRIPTION
1	Helicteres isora	Murud sheng	Malvaceae	Tree	It is a small tree, five to eight metres in height. It has grey bark and alternately arranged, hairy, ovate leaves with serrate margins.
2	Jasminum malabarium	Ranjaai, Ran mogra	Oleaceae	Shrub	It is a large, fragrant climber with white, star-shaped flowers, petals are 6- 10, 2 cm long, lance-like and spreading.
3	Sida cordifolia	Chikni or Bala	Malvaceae	Herb	It has wiry stems and leaves are densely covered in soft hairs that give them a felty texture, heart shaped leaves and serrate margin.
4	Terminalia bellirica	beda	Combretaceae	Herb	The bark is bluish or ashy-grey covered with numerous fine longitudinal cracks; the inner bark yellowish.
5	Haldina cordifolia	Hedu	Rubiaceae	Tree	It consists large, orbicular to cordate (heart-shaped) leaves, small yellow flowers in globose heads, and a large crown
6	Bauhinia varigata	kanchan	Fabaceae	Tree	It has large, showy orchid-like flowers, broad, lobed leaves resembling a camel's foot, and a spreading crown.

 Table No 1 List of plants from Lalthane & Vishrampur study area.

7	Celastrus paniculatus	Jyotishmati vel	Celastraceae	Shrub	Flowers are yellowish-green or white and Leaves are simple, elliptic to ovate with crenate-serrate margin.
8	Baliospermum blume	Dantivel	Euphorbiaceae	Shrub	Flowers are numerous, arranged in axillary racemes with male flowers above and a few females below.
9	Desmodium gangeticum	Salvan	Fabaceae	Shrub	It is sub-erect, diffusely branched with unifoliate leaves and small, purple, or white flowers in long racemes
10	Hemidesmus indicus	Anant vel	Asclepiadaceae	Herb	It is a slender, twining, sometimes prostrate or semi-erect climber.
11	Randia Spinosa	Madanfal	Rubiaceae	Shrub	It is a large spiny shrub or small tree
12	Cissampelos pareira L.	Pahadvel	Menispermaceae	Shrub	It's a dioecious, perennial, twinning and climbing medicinal shrub and also known for its velvety leaves.
13	Asparagus racemosus	Shatavari	Liliaceae	Shrub	Shatavari has small pine-needle-like phylloclade that are uniform and shiny green
14	Gossypium Herbaceum	Kapus	Malvaceae	Shrub	Yellow flowers with globular pods that split open to reveal seeds embedded in short, white cotton fibres
15	Bauhinia racemosa	Apta	Fabaceae	Shrub	bilobed leaves, greenish-white flowers, and stalked, turgid pods that mature to a dark brown colour
16	Gloriosa superba L.	Kal lavi	Colchicaceae.	Climber	Leaves are Lance-shaped and tipped with tendrils, and is has showy flower with six tepals
17	Heliotropium indicum L	Naagdawan	Boraginaceae	Herb	It has small white or purple flowers with a green calyx and hairy stem
18	Bauhinia Acuminata	Safed aaein	Caesalpiniaceae	Shrub	Its bilobed, ox-hoof shaped leaves, white fragrant flowers, and dark brown, glabrous pods
19	Elaeocarpus angustifolia	Rudraksha	Elaeocarpaceae	Tree	The fruit is an oval to spherical drupe that is usually blue, sometimes black, with a sculptured endocarp.
20	Aegle marmelos	Bael	Rutaceae	Tree	Branches are spiny and have many straight spines, Leaves grow alternately, composed of 3 oval-shaped leaflets
21	Oroxylum indicum	Tetu	Bignoniaceae	Tree	Soft-wooded tree Stem bark is dull brown in colour; leaves are broad Leaflets are ovate, wavy, and acuminate
22	Hiptage Benghalensis	Madhumalti	Malpighiaceae	Shrub	It is a stout, high-climbing liana or large shrub, with white or yellowish hairs on the stem and leaves are lanceolate.
23	Eclipta alba	Bhrigraj, Maka	Asteraceae	Herb	It has an erect or prostrate, branched (occasionally rooting at nodes) and white tiny flowers.
24	Cynodon dactylon	Durva	Poaceae	Herb	Leaves are grey-green and long and the ligule has a ring of white hairs
25	Ziziphus mauritiana	Badri	Rhamnaceae	Tree	Its zigzagging stems, glossy green leaves with whitish undersides, small greenish-yellow flowers,
26	Datura stramonium	Dhotra	Solanaceae	Shrub	It has trumpet-shaped flowers (white or violet), and egg-shaped seed capsules that split open to reveal small, black seeds.
27	Ocimum sanctum	Tulsi	Lamiaceae	Herb	It has erect, much-branched stems, hairy leaves (green or purple), strongly scented, and decussate phyllotaxy
28	Prosopis cineraria	Shami	Fabaceae	Tree	Tree with thorns on its branches, bipinnate leaves, and small yellow flowers, adapted to arid conditions
29	Punica granatum	Dalimb	Lythraceae	Tree	It has oblong leaves, bright red flowers, and a rounded, leathery-skinned fruit containing numerous seeds.

30	Achyranthes aspera	Aagada	Amaranthaceae	Herb	It has stiff, erect stems, opposite, hairy leaves, and small, greenish-white flowers arranged in elongated, terminal spikes
31	Solanum indicum	Dorli	Solanaceae	Herb	Prickly shrub with ovate to elliptical, lobed leaves, blue flowers in extra- axillary cymes.
32	Nerium indicum	Kanher	Apocynaceae	Shrub	The leaves are light green and very glossy when young, maturing to a dull dark green and the flowers grow in clusters
33	Calotropis procera	Rui	Apocynaceae	Shrub	Its relatively large greyish-green leaves are borne in pairs and its flowers are white with purplish-coloured tips
34	Terminalia arjuna	Arjun	Combretaceae	Tree	It has smooth, grey bark, oblong-elliptic leaves, yellowish-white flowers, and fibrous, woody fruits with five wings
35	Evolvulus alsinoides	Vishnukrant	Convolvulaceae	Herb	It's a herb with slender, hairy stems, small, elliptical leaves, and blue or white, wheel-shaped flowers
36	Cedrus deodara	Devdar	Pinaceae	Tree	It has pyramidal shape (young), pendulous branchlets, needle-like leaves in clusters, and aromatic, durable wood.
37	Origanum majorana	Marwa	Lamiaceae	Herb	It is a bushy, aromatic perennial herb with grey-green, ovate leaves and small, white or pale pink flowers.
38	Ficus religiosa	Peepal	Moraceae	Tree	It has large, heart-shaped leaves with a long, tail-like tip, and small, purplish figs.
39	Jasminum officinale	Jai, suman	Oleaceae	Shrub	The foliage is slightly downy with pinnate leaves, having 5 to 9 leaflets. The flowers are white or very pale pink and fragrant
40	Pendanus odoratissimus	Kevda	Pandanaceae	Tree	Pandanus species typically have slender palmlike stems and produce from their trunks and stems aerial prop roots.
41	Sesbania grandiflora	Hadga	Fabaceae	Tree	The bark is deeply furrowed into thick plates, cork-like, and soft the inner bark has a slightly bitter taste.
42	Tridex procumbens	Dagdi pala	Asteraceae	Herb	It has hairy stems, simple, opposite, toothed leaves, and daisy-like flowers with white or yellow ray florets
43	Ziziphus rugosa	Toran	Rhamnaceae	Tree	Evergreen nature, paired hooked thorns, and drupe-type fruits, with leaves that are elliptic
44	Syzygium aromaticum	Lavang	Myrtaceae	Tree	Leaves are simple, opposite, leathery and shiny texture on the upper surface, and are aromatic when crushed.
45	Strychnos nux vomica	Kajra	Loganiaceae	Tree	Its trunk is short and thick and the wood is dense, hard, white, and close-grained, the branches are irregular.
46	Emblica officinalis	Avla	Phyllanthaceae	Tree	Fruits are fleshy, round, attractive, deeply ribbed and yellowish green in colour
47	Syzygium cumini	Jambul	Myrtaceae	Tree	It has glossy, leathery leaves, fragrant white flowers, and edible, purple-black fruits that ripen from green to black.
48	Acacia catechu	Khair	Fabaceae	Tree	Thorny branches, bipinnate leaves, and small, pale yellow flowers in spikes, with flat, brown pods.
49	Mesua ferrae	Naagkeshar	Calophyllaceae	Tree	It has straight, often buttressed trunk, reddish-brown bark, and large, fragrant, white flowers with a yellow centre.

50	Aquilaria sinensis	Krushnaguru	Thymelaeaceae	Tree	It has smooth bark is greyish to dark grey, and the wood is white to yellowish.
51	Butea monosperma	Palas	Fabaceae	Tree	It has bright orange-red flowers, pinnately trifoliate leaves, and leafless appearance during the flowering season
52	Salmalia malabarica	Sawar	Bombacaceae	Tree	Tree that has a straight tall trunk and the leaves are large with lanceolate leaflets.
53	Artocarpus Heterophyllus	Fanas	Moraceae	Tree	Bark is rough or scaly, dark grey to greyish brown in colour and a milky sap that exudes when injured.
54	Mitragyna Parvifolia	Kalamb	Rubiaceae	Tree	It has opposite, oblong-ovate to obovate leaves, and creamy-white, fragrant flowers in globose heads.
55	Azadirachta Indica	Neem	Meliaceae	Tree	tree with a large, rounded crown, distinctive compound leaves, small, fragrant white flowers, and smooth, olive-like fruits.
56	Madhuca Indica	Maha, mahua	Sapotaceae	Tree	tree with a grey, wrinkled bark and vertically cracked trunk, known for its fleshy, creamy-white flowers.
57	Mimusops Elengi	Bakula	Sapotaceae	Tree	It is large trees, bark is dark grey, leaves simple, alternate, spiral, flowers white
58	Cinnamomum Tamala	Tejpatra, tamalpatra	Lauraceae	Herb	Its evergreen tree, bark produces mucilage, leaves lanceolate, glabrous; alternately placed, opposite.
59	Gardenia Jasminoides	Anant	Rubicaceae	Shrub	It is evergreen shrub, leaves are elliptic- oblong, glossy and leathery, flowers are white, turning to creamy yellow as they age
60	Semecarpus Anacardium	Beeba	Anacardiaceae	Tree	It's a deciduous tree, bark Rough, dark brown in color, leaves Large, simple, obovate-oblong, rounded at the apex, and glabrous flowers Small, dull greenish-yellow,
61	Carissa Carandas	Karwand	Apocynaceae	Shrub	A large shrub, spreading spines, leaves oblong, distinctly nerved, flowers scented, fruit is berry.
62	Averrhoa Bilimbi	Bilimbi	Averrhoaceae	Tree	A small, long-lived tree, leaves alternate, clustered at branch tips, flowers Small, fragrant, yellowish- green or purplish.
63	Piper Nigrum	Mikhel	Piperaceae	Climber	A woody, perennial climber, leaves ovate, dark green, and glossy on the top side, with a pale green, flowers small
64	Plumbago zeylanica	Chitrak	Plumbaginaceae	Herb	Its perennial under shrub, leaf simple, opposite, oval, pointed, smooth, fruits green coloured.
65	Aerva Lanata	Kapoor tulsi	Amaranthaceae	Shrub	A shrub, stems woolly, branched, leaves small, ovate, alternately arranged, flowers small, white or greenish.
66	Pterocarpus Marsupium	Bibla	Fabaceae	Tree	It is large deciduous tree, compound leaves, yellow flowers in panicles, and distinctive winged pods.
67	Cymbopogan flexuous	Gavti chaha	Gramineae	Herb	It's a perennial, densely tufted grass, stem erect, slender, and aromatic, leaves long, narrow, and linear with a strong lemon scent
68	Piper betel	Paanvel	Piperaceae	Climber	Its a perennial and climber with heart- shaped, glossy green leaves, It has a distinct aromatic fragrance due to essential oils.

69	Morus alba	Shahatuta	Moraceae	Shrub	It's a deciduous tree, simple, alternate, and often lobed leaves, small greenish flowers, and produces sweet, white to purplish-black multiple fruits.
70	Clerodendron serratum	Bharangi	Lamiaceae	Herb	It is a small shrub, bearing opposite leaves and having woody rootstock, quadrangular, glabrous branches, leaves are large and ovate or oblong.
71	Elettaria cardamom	Elaichi	Zingiberaceae.	Herb	Its alternate, linear-lanceolate leaves, white to lilac flowers in loose spikes, and three-sided, yellow-green pods.
72	Gmelina arborea	Shivan	Lamiaceae	Tree	It has Spreading branches with smooth, pale grey to white or reddish-brown bark with lenticels
73	Garcinia indica	Kokam	Clusiaceae	Tree	Drooping branches, leathery leaves and globose, smooth, purple fruits containing sweet and sour pulp and seeds
74	Spondias pinnata	Ambada	Anacardiaceae	Tree	Bark thick, smooth, dark brown. Compound leaves with large leaflets, dark green and glossy, mango scented
75	Ziziphus jujube	Bore	Rhamnaceae	Shrub	The small yellow flowers are followed by dark brown, round to oblong fruits the size of small plums.
76	Piper cubela	Kankol	Piperaceae	Climber	The leaves have a pungent flavour, grow singly and numerous flowers, lacking sepals and petals, are crowded in dense spikes
77	Quisqualis indica	Rangoon creeper	Combretaceae	Shrub	It has fragrant, star-shaped flowers that change colour sequentially from white to pink to red, and its elliptic-ovate
78	Crossendra infundibuliformis	Aboli	Acanthaceae	Herb	It has glossy, wavy-margined leaves and distinctive, bright orange to salmon-pink flowers in terminal spikes
79	Chlrophytum cosmosum	Dragon spider	Asparagaceae	Herb	It has long strap-shaped leaves, fleshy roots, and the ability to produce plantlets along long stems that can root when they touch the ground
80	Dracena reflexa	Song of India	Asparagaceae	Herb	It is slow-growing and upright in habit, tending to an oval shape with an open crown and simple lanceolate leaves
81	Coleus blumei	Flame natel	Lamiaceae	Herb	its vibrant, colourful foliage, often variegated with shades of green, red, pink, yellow, and maroon, and its velvety texture
82	Begonia aserifolia	Rex begonia	Begoniaceae	Herb	It has four-coloured tepals in two pairs of different sizes and flower colours are pink, red, yellow.
83	Andrographis paniculata	Bitter weed	Acanthaceae	Herb	Flowers are pedicelled, biliped, white- purple or spotted purple and solitary and calyx lobes are subacute, long and glandular.
84	Dieffenbachia aurantiaca	Dumb cane	Araceae	Herb	The large, shiny, green leaves are variegated in a variety of patterns of patches in colours of cream, white, or yellow.
85	Vernonia cinerea	Little iron weed	Asteraceae	Herb	It is a slender, hairy herb with simple leaves, small, compact terminal inflorescences, and tiny achene fruits
86	Costus spectabilis	spiral ginger family	Costaceae	Herb	It features lush, broad leaves and striking flowers
87	Plumeria alba	White Frangipani	Аросупасеае	Shrub	It has fragrant, white flowers with yellow centres, narrowly lanceolate, green leaves that cluster at branch tips.

88	Bryophyllum pinnatum	Paanfutti	Crassulaceae	Herb	It has relatively broad leaves have scalloped margins and are oppositely arranged with three or five leaflets.
89	Vitex negundo	Mints	Lamiaceae	Shrub	It is an erect shrub or small tree and the bark is reddish brown and its leaves are digitate.
90	Musa paradisica	Banana	Musaceae	Tree	A distinctive pseudo stem formed by overlapping leaf sheaths, large, oblong leaves, and edible fruit (bananas) that grow in clusters.
91	Poinsetia alba	Poinsettia	Euphorbiaceae	Shrub	The large, showy, red or pink bracts give this plant a gorgeous appearance and the bracts are actually leaves.
92	Digitaria arvensis	Crabgrass	Poaceae	Shrub	They are slender monocotyledonous annual and perennial lawn, pasture, and forage plant.
93	Portulaca oleracea	Pursley	Portulacaceae	Herb	It has reddish, prostrate stems, fleshy, oval leaves, and small yellow flowers with five heart-shaped petals
94	Chenopodium album	Lambsquarters	Amaranthaceae	Herb	Inflorescence in irregular spikes clustered in panicles at the ends of the branches.
95	Amaranthus spinosus	Pigweed	Amaranthaceae	Herb	Its erect, often bushy, and much- branched habit, with sharp spines at the base of the leaf petioles.
96	Atalantia mauritiana	Makadlimbu	Rutaceae	Shrub	Atalantia mauritiana is a species of plants in the family Rutaceae. They are woody climbers naturally found in tropical regions
97	Litsea lamk	Sandhrukh	Lauraceae	Tree	leaves alternate or opposite or in whorls and inconspicuous flowers range from greenish to white, greenish-yellow, to yellowish
98	Lycianthes laevis	Ajaan	Solanaceae	Tree	It can be recognised by its calyx with 5 appendages, Upper leaves often paired and unequal.
99	Abrus precatorius	Gunj	Fabaceae	Tree	its bright red seeds with a black spot, small pinkish flowers, and pinnately compound leaves with numerous leaflets
100	Dalbergia sissoo	Shisav	Fabaceae	Tree	Dark brown to reddish-brown heartwood, a dense, spreading crown, rough and fissured bark, and compound leaves
101	Tecomella undulata	Raktarohika	Bignoniaceae	Tree	Tree with drooping branches, leaves are usually opposite, simple, narrowly oblong, obtuse and entire with undulate margins.
102	Simarouba amara	Simaruba	Simaroubaceae	Tree	Evergreen tree with compound leaves (9-16 leaflets), small yellow flowers, and green to purplish-black fruits.
103	Garuga pinnata	Kakad	Burseraceae	Tree	Pinnately compound leaves with ovate- lanceolate leaflets, clustered inflorescences at branch ends, and fruits that resemble small grapes
104	Hymenodictyon orixensis	Kadvai	Rubiaceae	Tree	Deciduous trees, bark 2 cm thick, grey to greyish-brown, rough, vertically fissured and cracked; branches pubescent.
105	Mutingia calabura	Cherry	Muntingiaceae	Shrub	It has ovate-lanceolate leaves with serrated margins, small white flowers, edible, red or yellow fruits.
106	Flacortia montana indica	Atak	Salicaceae	Tree	It is a spiny tree producing small, purple edible berries trees and leaves simple, alternate, lanceolate-ovate

107	Glycosmis mauritiana	Kirmir	Rutaceae	Shrub	Unifoliate or trifoliate leaves, aromatic odour when crushed, small pentamerous flowers, sweet-tasting fruits
108	Thespesia populnea	Parosa peepal	Malvaceae	Shrub	Its spirally arranged, stalked leaves have leathery leaf blades that are light green, triangular heart-shaped
109	Santalum album	Chandan	Santalaceae	Tree	Its aromatic heartwood, opposite, ovate-elliptic leaves, and semi-parasitic nature
110	Pterocarpus santalinus	Raktachandan	Fabaceae	Tree	Tree with heartwood that is extremely hard and dark purple, yielding a deep red latex when cut
111	Barringtonia asiatica	Samudrafal	Lecythidaceae	Tree	Tree with large, showy, nocturnal flowers with numerous white to pinkish stamens, leathery, shiny, dark green leaves
112	Citrus limetta	Mosambi	Rutaceae	Tree	The tree's fruit is classified as hesperidium with a leathery pericarp/rind, fibrous mesocarp, and juicy endocarp
113	Dichrostachys cinera	Durangi bambool	Fabaceae	Shrub	Tree has open crown, bipinnate leaves, bicolored pendulous flower spikes, and twisted, indehiscent pods
114	Ficus microcarpa	Nandruk	Moraceae	Tree	The plant is monoecious, producing unisexual flowers on the same individual, flowers are stalkless.
115	Nyctanthes arbor-tristis	Parijatak	Oleaceae	Tree	Tree has fragrant, night-blooming flowers, flaky grey bark, and rough, hairy leaves, with flowers opening at dusk and closing at dawn
116	Melia azedarach	Bakananim	Meliaceae	Tree	tree has bipinnately compound leaves, fragrant lilac flowers in panicles, and small, yellow, poisonous fruits.
117	Dolichandrone falcata	Medshingi	Bignoniaceae	Tree	Leaves are compound 2-6 inches long with 3-6 obovate or oval shaped leaflets. Flowers are white and fragrant.
118	Dillenia indica	Motha karmal	Dilleniaceae	Shrub	It has large, solitary, white flowers broad, corrugated leaves (15-36 cm long), and large, round, greenish-yellow fruits (5-12 cm diameter) with many seeds
119	Adenanthera pavonina	Ratangunj	Fabaceae	Tree	Tall tree with a spreading crown and white-yellow fragrant flowers when in bloom
120	Boswellia serrata	Salai	Burseraceae	Tree	Trees have fragrant resin, thin, papery bark, and leaves that are alternate and imparipinnate
121	Acacia leucophloea	Hivar	Mimoceae	Tree	The leaves are bipinnate with small leaflets. The flowers are small, pale yellow, and arranged in globular inflorescences
122	Ougeinia oojeinense	Tivas	Fabaceae	Tree	Tree with a short, crooked trunk, dark brown, deeply cracked bark, and trifoliate leaves with large, leathery leaflets.
123	Pterospermum acerifolium	Muchkand	Sterculiaceae	Tree	The leaves are variable and they can be orbicular, oblong, obovate or even palmately lobed.
124	Cymbopogan winterianus	Citronella	Fabaceae	Herb	The inflorescence is very large, erect, finally drooping, consisting of a branched and rebranched axis
125	Symplocos racemosa	Lodra	Symplocaceae	Tree	Tree with simple, alternate, oblanceolate to narrow elliptic leaves, serrate margins, and a greyish, lenticellate bark.

126	Citrus sinensis	Santra	Rutaceae	Tree	It has glossy, oval-shaped leaves, fragrant white flowers juicy fruits with a bright orange to yellow-orange rind
127	Nephelium lappaceum	Rambutan	Sapindaceae	Tree	The leaves are dark green in colour, flowers are greenish white, fragrant. Fruit has thin reddish or orange-yellow rind
128	Callicarpa lanata	Ishwar	Lamiacae	Shrub	Leaves simple, opposite; elliptic to broadly elliptic; apex acute or acuminate and purplish flowers
129	Datura metel linn	Kala dhotra	Solanaceae	Herb	The leaves of the plant are large and the flowers are the smallest among the Datura species.
130	Brassica juncea	Mustard	Curciferae	Herb	It has pale green foliage, deeply lobed lower leaves, narrow and entire upper leaves, and yellow flowers that grow in spike-like clusters
131	Convolvulus arvensis	Bindweed	Convolvulaceae	Herb	It has small flowers often crowded together and arrow-shaped leaf ending in a sharp apex
132	Celosia cristata	Cocks Comb	Amaranthaceae	Herb	It has large, velvety, crested flower heads resembling a rooster's comb
133	Hibiscus rosasinesinsis	Shoe flower	Malvaceae	Shrub	Simple lobed, dark green glossy leaves dentate margins with visible palmate venation.
134	Sterculia foetida	Jangli badam	Malvaceae	Tree	The branches of Sterculia foetida are arranged in whorls; they spread horizontally, tree's bark is smooth and gray.
135	Myristica dactyloides	Raan jaayfal	Apiaceae	Tree	It has simple, alternate, distichous leaves, unisexual flowers (dioecious)
136	Trachyspermum ammi	Ajwain	Apiaceae	Tree	Its pinnate leaves, small white flowers in compound umbels, and small, ovoid, aromatic fruits with a thyme-like scent and a pungent taste.
137	Mangifera indica	Mango	Anacardiaceae	Tree	It has fragrant, small, yellowish-green or pinkish flowers in panicles, and large, fleshy, drupe-like fruits
138	Carica papaya	Papaya	Caricaceae	Tree	leaves clustered at the top, and the production of milky latex, with fruits hanging in clusters below the leaf canopy.
139	Ficus hispida	Dhedumbar	Moraceae	Tree	Its hairy leaves and stems, opposite leaf arrangement (decussate), and small, edible figs.
140	Cordia macleodii	Dahivan	Boraginaceae	Tree	The bark has a coarse texture with splintery fracture. It has no characteristic taste and odour.
141	Albizza procera	kinai	Fabaceae	Tree	Its smooth, light-coloured bark, bipinnate leaves with numerous small leaflets, and small, fragrant, creamy- white flowers in dense cluster
142	Ochna obtusata	Kanakchampa	Ochanaceae	Shrub	Bark is thin, brown in colour, leaves are elliptic to oblong, cuneate, obtuse and serrate.
143	Mirabilis jalapa	Gulbakshi	Nyctaginaceae	Herb	It has oblong to triangular foliage and trumpet-shaped flowers which are lemon-scented and short lived
144	Dioscorea bulbifera	karanda	Dioscoraceae	Climber	herbaceous, twining vine habit, alternate, broadly heart-shaped leaves, and the presence of aerial bulbils in the leaf axils.
145	Cassia auriculata	Tarwat	Fabaceae	Shrub	Small shrubby tree, Leaf long; stipules foliaceous, rotund to reniform, with long apiculate on either side, persistent.

146	Uraria lagopoides	Pitvan	Fabaceae.	Herb	Uraria leptodorids is a prostrate or spreading herbaceous perennial plant with stems up to 60cm long.
147	Gliricidia sepium	Mouse killer	Fabaceae.	Shrub	Short tree with loose canopy, bark smooth, branches softer, long and slender. leaves bright green.
148	Cassia tora	Takla	Fabaceae.	Herb	Compound leaves with obovate leaflets, yellow flowers, and long, slender, brown pods containing many brown seeds.
149	Cymbopogon citratus	Lemon grass	Poaceae	Herb	It has linear, strap-shaped leaves with a strong lemony fragrance when bruised, and it rarely flowers
150	Pyllanthus urinaria	Bhuiavla	Euphorbiaceae	Herb	Small, inconspicuous, greenish-white flowers and distinctive round fruits borne on the undersides of lateral branches
151	Nerium odorum	Kanehar	Apocynaceae	Shrub	It has glossy, narrow, lanceolate leaves, fragrant, showy, terminal flowers in clusters, and a milky sap.
152	Ricinus communis	Eranda	Euphorbiaceae	Shrub	Its large, palmately lobed, glossy green leaves with toothed margins, a tall shrub or small tree-like growth habit.
153	Calycopteris floribunda	uukshi	Combretaceae	Climber	Flowers in dense axillary racemes, crowded in dense panicles at top of branches Bracts leafy
154	Piper betle	Betel	Piperaceae	Climber	Evergreen vine characterized by its glossy, heart-shaped leaves and white catkins
155	Cocculus hirsutus	Broom creeper	Menispermceae	Shrub	slender twining habit, hairy leaves, and dark purple, juicy fruits small, yellowish flowers
156	Albizia amara	shirish	Fabaceae	Tree	The bark of the tree is grey in color and is grainy and scaly and lowers are whitish-yellow powder puffs
157	Mentha spicata	Spearmint	Lamiaceae	Herb	It has square stems, opposite, lanceolate-oblong leaves with serrated margins, and a strong, characteristic spearmint fragrance
158	Morus alba	white mulberry	Moraceae	Shrub	Plants exude a milky sap from young twigs when broken and the fruit is produced on the female part.
159	Aerva lanata	mountain knotgrass	Amaranthacae	Shrub	It is an erect or prostrate plant with a long, woody tap root that branches from near the base
160	Diplocyclos palmatus L.	Striped Cucumber	Cucurbitaceae.	Herb	Leaves are palmate, 5-lobed, small greenish-yellow flowers, and globose, red fruits with white stripes that resemble lollipops
161	Diospyros malabarica	Tembhurni	Ebenaceae	Tree	tree with a black bark, shiny green leaves, and white or green flowers
162	Samanea saman	Rain tree	Fabaceae	Tree	The bark is dark brown and becomes more fissured with age, peeling off in long fibrous strips.
163	Cassia fistula	Bahava	Fabaceae	Tree	bright yellow, fragrant flowers in long, drooping clusters, pinnately compound leaves with large leaflets
164	Centella asiatica	Mandukparni	Apiaceae	Herb	Herb with fleshy, orbicular to reniform leaves, a long petiole, and rooting stems
165	Curcuma longa	Turmeric	Zingiberaceae	Herb	It has thick, branched rhizomes, large, oblong leaves and pale yellow to white flowers borne on spike-like stalks
166	Alstonia scholaris	Saatwin	Аросупасеае	Tree	Its pagoda-shaped crown, whorled leaves, milky sap (latex), and fragrant, greyish-yellow flowers in umbrella- shaped cymes

167	Passiflora coccinea	Passifloraceae	Passifloraceae	Shrub	It has showy scarlet-red flowers, oblong, medium green leaves, and
168	Beaumontia grandiflora	Easter Lily Vine	Apocynaceae	Climber	edible, orange to yellow passion fruits. The large, bisexual flowers are borne on cymes in 3 to 19 flowers and have a funnelform corolla and are creamy
169	Moullava spicata	cork bush	Fabaceae	Tree	white in colour It has bipinnate leaves, recurved prickles, and striking scarlet calyx and orange-yellow petals in dense spicate racemes
170	Acacia concinna	Shikakai	Fabaceae	Tree	It has numerous hooked prickles, bipinnate leaves, and fleshy pods
171	Vallaris solanacea	Bread Flower	Apocynaceae	Climber	Climbing shrub with elliptic, oppositely arranged leaves, white or creamy fragrant flowers in clusters, and a milky latex
172	Ipomoea aqutica	Morning-glory	Convolvulaceae	Climber	The stems produce roots at the nodes and float in aquatic habitats and the leaves are simple and alternate
173	Lysiloma latislliquam	False tamarind	Fabaceae	Tree	Tree that reaches up to 20 m in height and it has a straight trunk with ascendant branches.
174	Phylanthus reticulatus	Black-Honey Shrub	Phyllanthaceae.	Shrub	Shrubby plant, sometimes scrambling, with light reddish-brown or grey-brown bark, and small, oval leaves
175	Mallotus philippensis	Kampillaka	Euphorbiaceae	Tree	The trunk is fluted and irregular at the base and grey bark is smooth, or with occasional wrinkles or corky bumps
176	Syzygium jambos	Rose apple	Myrtaceae	Tree	Its leaves and twigs are glabrous and the bark, though dark brown, is fairly smooth too, with little relief or texture
177	Barleria cristata L.	Philippine viole	Acanthaceae	Herb	It is is an erect or diffuse herb, up to 1 m tall, stem appressed hairy, densely hairy at the nodes; branches and bracteoles spiny.
178	Boerhavia diffusa	punarnava	Nyctaginaceae	Herb	It has opposite leaves, and small, clustered flowers, often with a purplish- red to reddish-pink perianth
179	Markhamia lutea	Nile tulip	Bignoniaceae	Tree	It has bright yellow, trumpet-shaped flowers with orange-red stripes in the throat, compound leaves.
180	Caesalpinia cariaria	Divi Divi	Fabaceae	Tree	A small unarmed tree reaching up to 10 m height with a spreading crown and leaves are alternate and twice compound.
181	Hibiscus mutabilis	Confederate Rose	Malvaceae	Shrub	It has large, showy flowers that change colour throughout the day, from white or pink to deep red, and its deeply lobed, bright green leaves
182	Catharanthus rosesus	Sadaphuli	Apocynaceae	Herb	Shrub with glossy, oval leaves, tubular flowers with five petal-like lobes, and milky sap when stems are broken
183	Colocasia esculanta	Suran	Araceae	Herb	It has large, heart-shaped to arrow- shaped, downward-pointing leaves, thick, fleshy petioles, and a corm
184	Royalstonea regia	Royal Palm	Arecaceae	Tree	Trunk single, massive, bulging slightly towards the middle, concrete-grey with closely-spaced rings.
185	Senna siamea	Kassod Tree	Fabaceae	Tree	Alternate leaves are pinnately compound with up to 24 pairs of oblong leaves and Flowers are arranged in raceme inflorescences
186	Cassia grandis	Horse Cassia	Fabaceae	Tree	Bark is smooth and light grey. Alternate leaves are pinnately compound with 10 - 20 pairs of leaflets.

187	Spathodea	Flame of the	Bignoniaceae	Tree	It has large, showy, orange-red, tulip-
	Campanulata	Forest			shaped flowers borne in clusters at the tips of branches
188	Grevillea robusta	silk oak	Proteaceae	Tree	It has fern-like, pinnately divided leaves, bright orange-yellow flowers in dense spikes,
189	Tabebuia aurea	Trumpet plant	Bignoniaceae	Tree	The leaves are palmately compound, with five or seven leaflets, green with silvery scales both above and below
190	Erythrina indica	Pangara	Fabaceae	Tree	Tree with striking bright red flowers that bloom before the leaves emerge, along with trifoliate leaves and black, thorny stems.
191	Pimetata dioica	All spice	Myrtaceae	Herb	It has aromatic, leathery, and glossy green leaves that are opposite in arrangement and have a spice odor when crushed
192	Callianadra haematocephala	Powder ouff	Fabaceae	Tree	It has bipinnately compound leaves, copper-pink leaves that mature to dark green, and striking red powder-puff flower heads with numerous scarlet stamens
193	Ficus religiousa	pepal	Moraceae	Tree	It has large, deciduous nature, heart- shaped leaves with long, tapering tips, and small, purplish figs when ripe.
194	Bauhinia variegata	Kanchan	Fabaceae	Tree	The bark is light brownish grey, smooth to slightly fissured and scaly and lobed leaves and showy, orchid-like flowers.
195	Abelmoschus moschatus	Musk mallow	Malvaceae	Herb	Its stalked leaves are alternate, hairy and heart-shaped with toothed margins and Stems are soft and hairy.
196	Abutilon indicum	Country mallow	Malvaceae	Shrub	Leaves simple, circular-ovate or heart- shaped, 5-12cm long and wide; both sides softly velvety-pubescent, alternately arranged,
197	Achyranthes aspera	Devil's horsewhip	Amaranthaceae	Herb	It has opposite, hairy leaves, and long, terminal spikes of small, greenish-white flowers spiny bracts surrounding the fruits
198	Ageratum conyzoides	Goat weed	Asteraceae	Herb	It has ovate, opposite leaves, hairy stems, and small, white to purple flower heads arranged in terminal clusters
199	Alternanthera brasiliana	Brazilian joyweed	Amaranthaceae	Shrub	Stems that range between red, green, and purple; and leaves that are simple, entire, and opposite, with shapes varying from linear-lanceolate
200	Crotalaria sagittalis	Arrowhead rattlebox	Fabaceae	Herb	Yellow pea-like flowers, and an inflated pod that rattles when ripe and arrowhead-shaped stipules
201	Cyanotis axillaris	Cradle plant	Commelinaceae	Herb	A slender, diffusely branched sub-erect creeping herb and leaves are sessile, linear and pointed at apex
202	Cynodon dactylon	Bermuda grass	Poaceae	Herb	The stems is very ramified, spreading at the soil surface by long rhizomes and stolons and the leaves are narrow and with flat arrangement.
203	Leucas aspera	Common leucas	Lamiaceae	Herb	It has square stem, rough texture, opposite linear-oblong and white, small flowers clustered in terminal and axillary whorls.
204	Ludwigia adscendens	Water primrose	Onagraceae	Herb	It has elliptic leaves, white flowers with a yellow base, and spongy, white aerophores (breathing roots).
205	Malachra capitata	Brazil Jute	Malvaceae	Herb	It has alternate, velvety leaves, stellate- hairy stems, and a habit of growing up to 1.5 meters tall.

206	Oxalis corniculata	Wood sorrel	Oxalidaceae	Herb	Flowers are bright yellow and heart- shaped leaflets on trifoliolate leaves and
207	Artocarpus lakoocha	Monkey jack	Moraceae	Tree	cylindrical seed pods. The leaves are smooth on the surface and rough on the undersides and stipules are ovate-acute
208	Phyllanthus niruri	Stonebreake	Euphorbiaceae	Herb	It has numerous small leaves which are simple, elliptic to elongated, carrying minute flowers to their base
209	Adenthera pavonina	Ratangunj	Fabaceae	Tree	Tall tree with a spreading crown and white-yellow fragrant flowers when in bloom and the seeds are scarlet red and shiny
210	Sida cordifolia	Flannel Weed	Malvaceae	Shrub	It is a small, erect, downy shrub and the leaves of the plant are chordate-oblong, fruits with a pair of awns on each carpel.
211	Millingtonia horrtensis	Buch	Bignoniaceae	Tree	It has slender trunk with light, cork-like bark, large fern-like leaves, and fragrant, white, trumpet-shaped flowers
212	Atrabotrys hexapetalous	Hirva chapha	Annonaceae	climber	It has alternate, lanceolate-elliptic to oblong leaves, and hooked inflorescence axes with yellow fragrant flowers.
213	Muraraya Paniculata	Kunti	Rutaceae	Shrub	It has glossy, dark green, pinnately compound leaves, fragrant white flowers, and small, red fruits.
214	Melia azedarach	Bachneem	Meliaceae	Tree	The bark is brown with narrow furrows which give a striped appearance and the leaves are twice-compound with oval to elliptical-shaped leaflets
215	Antigonin leptopus	Icecream creeper	Polygonaceae	Climber	Climbing vine with heart-shaped leaves, pink or white flowers in raceme- like clusters, and tendrils
216	Valleris solancea	Vishmogeri	Apocynaceae	Shrub	It has alternate leaves, complete flowers (with 5 petals and sepals), and fruits that are either berries or capsules
217	Merremia tuberosa	Woodrose	Convolvulaceae	Climber	Twining vines, with milky or watery latex, bisexual and actinomorphic flowers, and capsular dehiscent fruits
218	Argyreia nervosa	Samudrashok	Convolvulaceae	Climber	A robust woody climber with densely hairy stems and its large leaves are heart-shaped with whitish-silver hairy underside.
219	Pyrostegia venusta	Sankrantvel	Bignoniaceae	Climber	Leaves are trifoliate and are arranged in opposite pairs along the stemand the leaflets have an entire margin and are ovate in shape.
220	Caesalpinia bounduc	Sagergota	Fabaceae	Shrub	It is a large, straggling, thorny shrub, and is an extensive climber and branches are armed with hooks and are straight
221	Ruellia prostrata	Wild petunia	Acanthaceae	Herb	Herb with ovate, green leaves, and pale purple to nearly white flowers, often solitary in leaf axils, and hairy capsules.
222	Schefflera elliptica	Pachotra	Araliaceae	Shrub	It has scandent, woody, glabrous; bark white-pale brown, conspicuously lenticellate and Leaves compound
223	Butea superba	Palasvel	Fabaceae	Climber	Large woody climber, climbing from left to right and the bark deep brown
224	Combretum latifolium	Piluk	Combretaceae	Climber	Climber with opposite, hairless leaves, broadly elliptic or ovate-elliptic in shape, and a distinctive fruit
225	Dalbergia horrida	Pentgul	Fabaceae	Climber	A large prickly Climbing shrub and stems are armed with strong, blunt and curved thorn, leaves are unipinnate

226	Dalbergia volubilis	Alai	Fabaceae	Climber	Branches are smooth, twining or twisted into spiral hooks. Leaves are compound, 10-15 cm long
227	Monstera deliciosa	Monstera	Araceae	Climber	It has large, glossy, dark green leaves with characteristic perforations (holes) and lobes
228	Combretum indicum	Rangunvel	Combretaceae	Climber	It has opposite, simple leaves, showy flowers and fruits that are often 4-5 winged.
229	Porana paniculata	Heemvel	Convolvulaceae	Climber	Vine with ovate, heart-shaped leaves, and white, funnel-shaped flowers that bloom in panicles
230	Derris scandens	Ambri	Fabaceae	Climber	Woody, branched stems, pinnately compound leaves with elliptic to ovate- oblong leaflets, axillary racemes of pink or white flowers
231	Portulaca oleracea	Common purslane	Portulacaceae	Herb	It has fleshy, spoon-shaped leaves, reddish stems, and small, yellow flowers
232	Physalis minima	Sunberry	Solanaceae	Herb	Delicate stems, ovate to cordate leaves, and bell-shaped flowers enclosed in a balloon-like ribbed calyx
233	Lantana camara	Wild sage	Verbenaceae	Shrub	Multi-colored, fragrant flowers in dense clusters, rough, aromatic leaves, and stems that can be erect or climbing
234	Ipomoea obscura	Morning glory	Convolvulaceae	Herb	It has heart-shaped leaves, funnel- shaped flowers and globose, beaked capsules
235	Euphorbia hirta	Asthma Herb	Euphorbiaceae	Herb	Herb with hairy stems, opposite, oblong-lanceolate leaves with finely toothed margins, and small, greenish or pinkish flowers
236	Datura metel	Thorn apple	Solanaceae	Shrub	The leaves of the plant are large, 7–20 cm in length, and the flowers are the smallest
237	Ehretia laevis	Ajan vruksha	Boraginaceae	Tree	A moderate-sized, deciduous tree with smooth, grey bark and Leaves 7-14 cm long, elliptic, obtuse, entire.
238	Parthenium hysterophorus	Santa Maria feverfew	Asteraceae	Herb	It is annual herb, deeply lobed leaves covered in fine hairs and produces small, white, five-petaled flowers arranged in clusters.
239	Alangium salviifolium	Ankhol	Cornaceae	Shrub	It is a shrub, leaves are simple, alternate, flowers are fragrant, white, or yellowish.
240	Capparis sepiaria	Kanthar	Capparaceae	Shrub	It is a thorny shrub, leaves are simple, ovate, and leathery, flowers are small, pale yellow to white.
241	Clematis gouriana	Ranjai	Ranunculaceae	Climber	It's a climber, leaves are compound, pinnate, ovate to lanceolate, flowers are small, white or pale yellow, fragrant, fruits achenes.
242	Cansjera rheedei	Malabar False Olive	Opiliaceae	Climber	Its a climber, alternate, ovate leaves, axillary spikes of greenish-yellow flowers, and orange-red drupe fruits.
243	Schleichera oleosa	kusum	Sapindaceae	Tree	Its bright red leaves when they are new, leaves are pinnate, flowers are tiny, occurring in short dense yellow clusters, fruit is about the size of a small plum.
244	Derris scandens	Karanj vel	Fabaceae	shrub	Its shrub, pinnate leaves, elliptic, flowers small, purplish, fruits flat, oblong pod.
245	Ixora nigricans	Lokhandi	Rubiaceae	Shrub	It is shrub, leaves are simple, opposite, decussate and glossy, flowers small, white.

246	Diospyros malabarica	Tembhurni	Ebenaceae	Tree	It's a evergreen tree, leaves are elliptic to oblong, leathery, and glossy green, flowers small, pale yellow, and fragrant.
247	Cocculus hirsutus	wasanvel	Menispermaceae	Climber	It has slender twining habit, hairy leaves, and dark purple, juicy fruits
248	Canavalia ensiformis	Abaivel	Fabaceae	climber	It has climbing or bushy growth, trifoliate leaves with ovate leaflets, rose-coloured to purplish flowers, and long, sword-shaped pods
250	Paracalyx scariosus	Ranvarva	Fabaceae	Climber	A woody twiner, with slender finely downy branches and leaflets minutely stipulate
251	Abutilon indicum	Pethari	Malvaceae	Shrub	It has round stem, often tinged with purple and leaves simple, heart-shaped, alternately arranged, with coarsely crenate-serrate margins.
252	Acacia concinna	Shikekai	Mimosaceae	Shrub	Its deciduous shrub, bipinnate leaves, thorny branches, and dark brown pod- like fruits.
253	Trema orientalis	Charcoal treee	Cannabaceae	Shrub	Its evergreen shrub, bark grey or brown, leaves simple, alternate, stipulate, flowers small, greenish white, fruits small, round.
254	Streblus asper	Kharoti	Moraceae.	Tree	It is a evergreen tree with latex, bark rough grey to greenish in colour, leaves are simple, alternate, rhomboid, elliptic, acute.
255	Baliospermum montanum	Dantimool	Euphorbiaceae	shrub	Its shrub, leaves acute apex, base rounded, lobed, small, yellowish-green flowers, capsule-like fruits.
256	Stereospermum personatum	Padal	Bignoniaceae	Tree	Its deciduous tree, leaves compoud, opposite, elliptic, flowers bell- shaped and yellow.
257	Careya arborea	Kumbi	Lecythidaceae	Tree	Its deciduous tree, a spreading crown and simple, obovate leaves, large, showy, yellowish-green flowers and globular, woody fruits.
258	Bridelia retusa	aasana	Phyllanthaceae	Tree	Its deciduous tree, spiny branches, elliptic-oblong leaves, and small, greenish-yellow flowers.
259	Ayapana triplinervis	Aayapana	Asteraceae	Herb	It has slender, reddish stems and narrow, leaves with three distinct veins, simple, opposite, narrowly elliptic or lanceolate
260	Gymnema sylvestere	Madhunashini	Apocynaceae	shrub	Large climbers, rooting at nodes, leaves

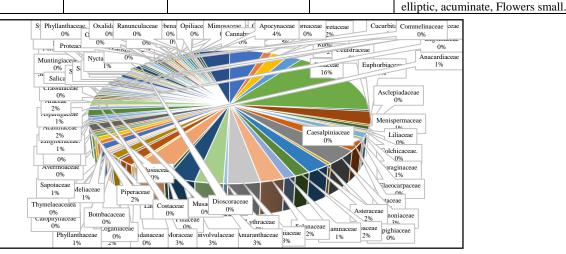
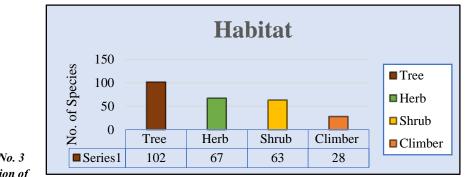


Figure No. 2 Graphical representation of distribution of species in the families from study area.

In the current floristic survey carried out in the study area of Lalthane and Vishrampur Village, a total of 260 plant specimens were carefully collected and examined. The graphical representation of distribution of plant species across various families, highlighting a rich diversity with a few dominant groups. The Fabaceae family is the most represented, accounting for 16% of the total, followed by Malvaceae (5%), Apocynaceae (4%), and several families contributing 3% each, such as Euphorbiaceae, Amaranthaceae, Bignoniaceae, Convolvulaceae, Lamiaceae, and Solanaceae. While over 50 plant families are included in the dataset, the majority are represented by only 0% to 1%, reflecting a wide range of lesser-known or less abundant species.



Graphical representation of habitat in study area.

Figure No. 3 distribution of

The habit-wise categorization of plant species in the research area revealed a diverse ecological community. The data collected showed that there was a total of 102 tree species dominating the landscape, with approximately 67 herbaceous plants following closely behind. Additionally, the study found that shrubs accounted for nearly 63 species, while climbers were represented by only 28 species.

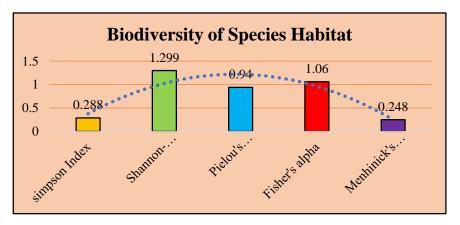


Figure No.4 Graphical representation of biodiversity of species habitat in study area.

The graph indicated five biodiversity indices to assess species richness, evenness, and diversity in a particular habitat. Shannon-Wiener Index is 1.299 in above biodiversity graph which is highest value among all indices, indicating high species diversity. The second most high value Fisher's Alpha is 1.06. The Fisher's alpha index is robust to sample size and is often used when comparing habitats. Pielou's Evenness Index 0.94 Very close to 1.0, which indicates near-perfect evenness in species distribution. Simpson Index is 0.288 and this value reflects low dominance, which supports the findings above. Menhinick's Index value is 0.248 which shows moderate richness, influenced by both species count and total individuals. The dotted

blue trend line shows a parabolic pattern, peaking at the Shannon-Wiener index, indicating that this metric captures the biodiversity peak.





Figure No.6



Figure No. 5 Curculigo orchioides Figure No.6 Helicteres isora Figure No. 7 Abrus Precatorius

**Conclusion:** A preliminary floristic survey was conducted in Lalthane and Vishrampur villages, Maharashtra, India, to catalogue the diverse plant species and assess their potential benefits to human health. The survey revealed a rich variety of plant life, with many species identified as medicinal plants. These plants are vital for traditional medicine and local healthcare practices. The survey also highlighted species used for food and timber, indicating a complex relationship between the local population and their natural environment. The biodiversity in the region is essential for maintaining ecological balance and supporting local communities' livelihoods.

**Future Scope:** -The region should be transformed into a tourist hub aimed at preserving its distinctive tree species and mitigating human activities that disrupt biodiversity. Conservation efforts are crucial for the survival of endangered plant species, as their extinction could lead to a reduction in biodiversity and potential resource loss for future generations.

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