

# Floristic Study on Angiosperms in Tandulwadi (marich van), Saphale village, Palghar District, Maharashtra, India.

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**Abstract:** -This study conducted in Tandulwadi (Marich van), Saphale village, Palghar District, is a region nestled in the Western Ghats Maharashtra, India. The main objective of this study is to assess the biodiversity and ecological importance of the flora in Tandulwadi (Marich van), Saphale village, Palghar District, Maharashtra, India. A comprehensive field survey was conducted to document the plant species diversity, distribution, and ecological characteristics across various habitats in the region. Taxonomic identification was performed for each species encountered, and data on their abundance, habitat preference, and ecological interactions were recorded. The survey revealed a rich diversity of plant life, including tropical forest species, moist deciduous trees and grassland vegetation. The diversity of the species was calculated using the Simpson's Index, Shannon Wiener Index and Evenness Index. The endemic and rare species were also identified, highlighting the ecological significance of the area. Ethnobotanical interviews with local communities provided insights into the traditional uses of plants for food, medicine, and cultural practices. The result of this study contributes to the conservation and management of plant biodiversity in Saphale village and provide valuable baseline data for future research and conservation initiatives in the region. Differences in species abundance and distribution across altitudinal classes may be related to resource availability, habitat overlap, habitat fragmentation, land area, degree of human impact or biotic disturbance.

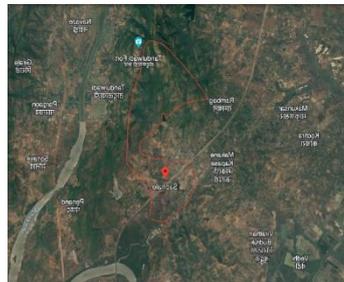
**Keywords:** -Flora, Biodiversity, Taxonomy, Habitat, Ethnobotany, Ecological significance, Species richness, Habitat analysis, Conservation strategies

**Introduction:** - To sustain the ecosystem for its sustainable use, biodiversity is essential. In General biodiversity make a reference to living organisms which involves plants, animals, aquatic and other habitats mainly of a region or a country. (2) A preliminary survey was conducted to document the diversity and economic importance of the angiosperms in Tandulwadi (Marich van), Saphale village, Palghar District. The collection of data involved the questionnaire and semi structured interview with local knowledgeable individuals about the flora of the Tandulwadi (Marich van). Interview was carried out in local dialect and permitting for open ended discussions about the uses and traditional knowledge of the plants. The research area provides endemic and certain endangered species with optimal conditions and serves as a seed bank for local species. The study area's diversity indices, which included species abundance, richness, and evenness, were determined to be significant.

## Materials and Methodology

**Study Area:** -Saphaledistrict, situated in Maharashtra was chosen as the study area because of its varied topography and prospective ecological importance. The study incorporated various habitats, which involved tropical forests, grasslands, wetlands, and agricultural lands. The latitude of this area is 19.589224 and the Longitude of the area is 72.850115.

Figure no.1 Geographical map of Saphale village



**Field Surveys:** - Organized field survey was administrated in the month of January to record plant species diversity. During the survey open end discussions were carried out with the knowledgeable resource individuals for better understanding of the floristic diversity.

**Taxonomic Identification:** -The plant specimens was assembled and precisely identified utilizing standard taxonomic keys, field guides and consultation of botanical experts. Voucher specimens were collected and herbarium were prepared for future references.

**Data Collection:** - Data of the identified plant species involved the immense knowledge on the morphology, distribution, abundance and habit fondness. The GPS photographs were catalogued for each sample location to facilitate mapping. The origin of the materials for this floristic study was the substantial data collections of Angiosperm on the Tandulwadi Hill. The ground work survey was carried out in the month of January which confirmed the diversity of plants from the research area. The study aimed on collection of data on different habits of Angiospers which involved herb, shrub, grass, climber, trees, lianas.

**Habitat Analysis:** -To comprehend the patterns of plant species distribution throughout the landscape, a variety of habitats, including wetlands, grasslands, and woods, were comprehensively sampled. Transects were set up to evaluate the structure and composition of the vegetation.

**Diversity Analysis:** - Statistical interpretation involved species abundance, diversity indices and community structures were performed to quantify the biodiversity of the flora.

A diversity index is a statistic used in ecology that is intended to gauge an ecosystem's biodiversity. Diversity indices, like Simpson's Diversity Index, Wiener Index, and Evenness Index, were developed in order to assess and analyse the degree of diversity within the research region. The following metrics were calculated: species abundance (Simpson's index, D); species richness (Shannon Wiener index, H); and evenness (H-max, measured evenness).

**Result and Discussion:** -A aggregate number of Two hundred and thirty-eight taxa belonging to Seventythree families of Angiosperms were archived from the Tandulwadihill (Marich van) of Saphale Village, Palghar district, Maharashtra in the course of the study interval.

Table no.1 List of plants from study area. (Reference 6,10)

Sr No	Botanical Name	Comman Name	Family	Habitat of the plant
1	<i>Helicteresisora</i>	Murud sheng or kewad	Malvaceae	Tree
2	<i>Jasminum malabaricum</i>	Ranjaai, Ran mogra	Oleaceae	Shrub
3	<i>Sida cordifolia</i>	Chikni or Bala	Malvaceae	Herb

4	<i>Terminalia bellirica</i>	beda	Combretaceae	Herb
5	<i>Haldina cordifolia</i>	Hedu	Rubiaceae	Tree
6	<i>Bauhinia varigata</i>	kanchan	Fabaceae	Tree
7	<i>Celastrus paniculatus</i>	Jyotishmati vel	Celastraceae	Shrub
8	<i>Baliospermum blume</i>	Dantivel	Euphorbiaceae	Shrub
9	<i>Desmodium gangeticum</i>	Salvan	Fabaceae	Shrub
10	<i>Hemidesmus indicus</i>	Anant vel	Asclepiadaceae	Herb
11	<i>Randia Spinosa</i>	Madanfai	Rubiaceae	Shrub
12	<i>Cissampelos pareira L.</i>	Pahadvel	Menispermaceae	Shrub
13	<i>Asparagus racemosus</i>	Shatavari	Liliaceae	Shrub
14	<i>Gossypium Herbaceum</i>	Kapus	Malvaceae	Shrub
15	<i>Bauhinia racemosa</i>	Apta	Fabaceae	Shrub
16	<i>Gloriosa superba L.</i>	Kal lavi	Colchicaceae.	Climber
17	<i>Heliotropium indicum L</i>	Naagdawan	Boraginaceae	Herb
18	<i>Bauhinia Acuminata</i>	Safed aaein	Caesalpiniaceae	Shrub
19	<i>Elaeocarpus angustifolia</i>	Rudraksha	Elaeocarpaceae	Tree
20	<i>Aegle marmelos</i>	Bael	Rutaceae	Tree
21	<i>Oroxylum indicum</i>	Tetu	Bignoniaceae	Tree
22	<i>Hiptage Benghalensis</i>	Madhumalti	Malpighiaceae	Shrub
23	<i>Eclipta alba</i>	Bhrigraj, Maka	Asteraceae	Herb
24	<i>Cynodondactylon</i>	Durva	Poaceae (Gramineae)	Herb
25	<i>Ziziphus mauritiana</i>	Badri	Rhamnaceae	Tree
26	<i>Datura stramonium</i>	Dhotra	Solanaceae	Shrub
27	<i>Ocimum sanctum</i>	Tulsi	Lamiaceae	Herb
28	<i>Prosopis cineraria</i>	Shami	Fabaceae	Tree
29	<i>Punica granatum</i>	Dalimb	Lythraceae	Tree
30	<i>Achyranthes aspera</i>	Aagada	Amaranthaceae	Herb
31	<i>Solanum indicum</i>	Dorli	Solanaceae	Herb
32	<i>Nerium indicum</i>	Kanher	Apocynaceae	Shrub
33	<i>Calotropis procera</i>	Rui	Apocynaceae	Shrub
34	<i>Terminalia arjuna</i>	Arjun	Combretaceae	Tree
35	<i>Evolvulus alsinoides</i>	Vishnukrant	Convolvulaceae	Herb
36	<i>Cedrus deodara</i>	Devdar	Pinaceae	Tree
37	<i>Origanum majorana</i>	Marwa	Lamiaceae	Herb
38	<i>Ficus religiosa</i>	Peepal	Moraceae	Tree

39	<i>Jasminum officinale</i>	Jai, suman	Oleaceae	Shrub
40	<i>Pendanusodoratissimus</i>	Kevda	Pandanaceae	Tree
41	<i>Sesbania grandiflora</i>	Hadga	Fabaceae	Tree
42	<i>Tridax procumbens</i>	Dagdipala	Asteraceae	Herb
43	<i>Ziziphus rugosa</i>	Toran	Rhamnaceae	Tree
44	<i>Syzygium aromaticum</i>	Lavang	Myrtaceae	Tree
45	<i>Strychnos nux vomica</i>	Kajra	Loganiaceae	Tree
46	<i>Emblia officinalis</i>	Avla	Phyllanthaceae	Tree
47	<i>Syzygiumcumini</i>	Jambul	Myrtaceae	Tree
48	<i>Acacia catechu</i>	Khair	Fabaceae	Tree
49	<i>Mesua ferrae</i>	Naagkeshar	Calophyllaceae	Tree
50	<i>Aquilaria sinensis</i>	Krushnaguru	Thymelaeaceae	Tree
51	<i>Butea monosperma</i>	Palas	Fabaceae	Tree
52	<i>salmaliamalabarica</i>	Sawar	Bombacaceae	Tree
53	<i>Artocarpus Heterophyllus</i>	Fanas	Moraceae	Tree
54	<i>MitragynaParvifolia</i>	Kalamb, bumikadamba	Rubiaceae	Tree
55	<i>Azadirachta Indica</i>	Neem	Meliaceae	Tree
56	<i>Madhuca Indica</i>	Maha, mahua	Sapotaceae	Tree
57	<i>Mimusops Elengi</i>	Bakula	Sapotaceae	Tree
58	<i>Cinnamomum Tamala</i>	Tejpatra, tamalpatra	Lauraceae	Herb
59	<i>Gardenia Jasminoides</i>	Anant	Rubicaceae	Shrub
60	<i>Semecarpus Anacardium</i>	Beeba	Anacardiaceae	Tree
61	<i>Carissa Carandas</i>	Karwand	Apocynaceae	Shrub
62	<i>Averrhoa Bilimbi</i>	Bilimbi	Averrhoaceae	Tree
63	<i>Piper Nigrum</i>	Mikhel	Piperaceae	Climber
64	<i>Plumbago zeylanica</i>	Chitrak	Plumbaginaceae	Herb
65	<i>Aerva Lanata</i>	Kapoor tulsi	Amaranthaceae	Shrub
66	<i>Pterocarpus Marsupium</i>	Bibla	Fabaceae	Tree
67	<i>Cymbopogan flexuous</i>	Gavtichaha	Gramineae	Herb
68	<i>Piper betel</i>	Paanvel	Piperaceae	Climber
69	<i>Morus alba</i>	Shahatuta	Moraceae	Shrub
70	<i>Clerodendron serratum</i>	Bharangi	Lamiaceae	Herb
71	<i>Elettaria cardamom</i>	Elaichi	Zingiberaceae.	Herb
72	<i>Gmelina arborea</i>	Shivan	Lamiaceae	Tree
73	<i>Garcinia indica</i>	Kokam	Clusiaceae	Tree

74	<i>Spondias pinnata</i>	Ambada	Anacardiaceae	Tree
75	<i>Ziziphus jujube</i>	Bore	Rhamnaceae	Shrub
76	<i>Piper cubela</i>	Kankol	Piperaceae	Climber
77	<i>Quisqualis indica</i>	Rangoon creeper	Combretaceae	Shrub
78	<i>Crossandra fundibuliformis</i>	Aboli	Acanthaceae	Herb
79	<i>Chlorophytum comosum</i>	Dragon spider	Asparagaceae	Herb
80	<i>Dracaena reflexa</i>	Song of India	Asparagaceae	Herb
81	<i>Coleus blumei</i>	Flame natel	Lamiaceae	Herb
82	<i>Begonia aserifolia</i>	Rex begonia	Begoniaceae	Herb
83	<i>Andrographis paniculata</i>	Bitter weed	Acanthaceae	Herb
84	<i>Dieffenbachia aurantiaca</i>	Dumb cane	Araceae	Herb
85	<i>Vernonia cinerea</i>	Little iron weed	Asteraceae	Herb
86	<i>Costus spectabilis</i>	spiral ginger family	Costaceae	Herb
87	<i>Plumeria alba</i>	White Frangipani	Apocynaceae	Shrub
88	<i>Bryophyllum pinnatum</i>	Paanfutti	Crassulaceae	Herb
89	<i>Vitex negundo</i>	Mints	Lamiaceae	Shrub
90	<i>Musa paradisiaca</i>	Banana	Musaceae	Tree
91	<i>Poinsetia alba</i>	Poinsettia	Euphorbiaceae	Shrub
92	<i>Digitaria arvensis</i>	Crabgrass	Poaceae	Shrub
93	<i>Portulaca oleracea</i>	Pursley	Portulacaceae	Herb
94	<i>Chenopodium album</i>	Lambsquarters	Amaranthaceae	Herb
95	<i>Amaranthus spinosus</i>	Pigweed	Amaranthaceae	Herb
96	<i>Atalantiamauritiana</i>	Makadlimbu	Rutaceae	Shrub
97	<i>Litsea lamk</i>	Sandhruk	Lauraceae	Tree
98	<i>Lycianthes laevis</i>	Ajaan	Solanaceae	Tree
99	<i>Abrus precatorius</i>	Gunj	Fabaceae	Tree
100	<i>Dalbergia sissoo</i>	Shisav	Fabaceae	Tree
101	<i>Tecomella undulata</i>	Raktarohika	Bignoniaceae	Tree
102	<i>Simarouba amara</i>	Simaruba	Simaroubaceae	Tree
103	<i>Garuga pinnata</i>	Kakad	Burseraceae	Tree
104	<i>Hymenodictyon orixensis</i>	Kadvai	Rubiaceae	Tree
105	<i>Muntingia calabura</i>	Cherry	Muntingiaceae	Shrub
106	<i>Flacortia montana indica</i>	Atak	Salicaceae	Tree
107	<i>Glycosmis mauritiana</i>	Kirmir	Rutaceae	Shrub
108	<i>Thespesia populnea</i>	Parosapepal	Malvaceae	Shrub

109	<i>Santalum album</i>	Chandan	Santalaceae	Tree
110	<i>Pterocarpus santalinus</i>	Raktachandan	Fabaceae	Tree
111	<i>Barringtonia asiatica</i>	Samudrafal	Lecythidaceae	Tree
112	<i>Citrus limetta</i>	Mosambi	Rutaceae	Tree
113	<i>Dichrostachyscinera</i>	Durangibambool	Fabaceae	Shrub
114	<i>Ficus microcarpa</i>	Nandruk	Moraceae	Tree
115	<i>Nyctanthesarbor-tristis</i>	Parijatak	Oleaceae	Tree
116	<i>Melia azedarach</i>	Bakananim	Meliaceae	Tree
117	<i>Dolichandrone falcata</i>	Medshingi	Bignoniaceae	Tree
118	<i>Dillenia indica</i>	Motha karmal	Dilleniaceae	Shrub
119	<i>Adenantherapavonina</i>	Ratangunj	Fabaceae	Tree
120	<i>Boswellia serrata</i>	Salai	Burseraceae	Tree
121	<i>Acacia leucophloea</i>	Hivar	Mimosaceae	Tree
122	<i>Ougeiniaoojeinense</i>	Tivas	Fabaceae	Tree
123	<i>Pterospermumacerifolium</i>	Muchkand	Sterculiaceae	Tree
124	<i>Cymbopogonwinterianusjowitt</i>	Citronella	Fabaceae	Herb
125	<i>Symplocosracemosa</i>	Lodra	Symplocaceae	Tree
126	<i>Citrus sinensis</i>	Santra	Rutaceae	Tree
127	<i>Nephelium lappaceum</i>	Rambutan	Sapindaceae	Tree
128	<i>Callicarpa lanata</i>	Ishwar	Lamiaceae	Shrub
129	<i>Datura metel linn</i>	Kala dhotra	Solanaceae	Herb
130	<i>Brassica juncea</i>	Mustard	Curciferae	Herb
131	<i>Convolvulus arvensis</i>	Bindweed	Convolvulaceae	Herb
132	<i>Celosia cristata</i>	Cocks Comb	Amaranthaceae	Herb
133	<i>Hibiscus rosasinesinsis</i>	Shoe flower	Malvaceae	Shrub
134	<i>Sterculia foetida</i>	Janglibadam	Malvaceae	Tree
135	<i>Myristica dactyloides</i>	Raan jaayfal	Apiaceae	Tree
136	<i>Trachyspermumammi</i>	Ajwain	Apiaceae	Tree
137	<i>Mangifera indica</i>	Mango	Anacardiaceae	Tree
138	<i>Carica papaya</i>	Papaya	Caricaceae	Tree
139	<i>Ficus hispida</i>	Dhedumbar	Moraceae	Tree
140	<i>Cordia macleodii</i>	Dahivan	Boraginaceae	Tree
141	<i>Albizzaprocera</i>	kinai	Fabaceae	Tree
142	<i>Ochna obtusata</i>	Kanakchampa	Ochanaceae	Shrub
143	<i>Mirabilis jalapa</i>	Gulbakshi	Nyctaginaceae	Herb

144	<i>Dioscorea bulbifera</i>	karanda	Dioscoraceae	Climber
145	<i>Cassia auriculata</i>	Tarwat	Fabaceae	Shrub
146	<i>Urania lagopoides</i>	Pitvan	Fabaceae.	Herb
147	<i>Gliricidiasepium</i>	mouse killer"	Fabaceae.	Shrub
148	<i>Cassia tora</i>	Takla	Fabaceae.	Herb
149	<i>Cymbopogon citratus</i>	Lemon grass	Poaceae	Herb
150	<i>Pyllanthusurinaria</i>	Bhuiavla	Euphorbiaceae	Herb
151	<i>Nerium odorum</i>	Kanehar	Apocynaceae	Shrub
152	<i>Ricinus communis</i>	Eranda	Euphorbiaceae	Shrub
153	<i>Calycopteris floribunda</i>	uukshi	Combretaceae	Climber
154	<i>Piper betle</i>	Betel	Piperaceae	Climber
155	<i>Cocculus hirsutus</i>	Broom creeper	Menispermceae	Shrub
156	<i>Albizia amara</i>	shirish	Fabaceae	Tree
157	<i>Mentha spicata</i>	Spearmint	Lamiaceae	Herb
158	<i>Morus alba</i>	white mulberry	Moraceae	Shrub
159	<i>Aerva lanata</i>	mountain knotgrass	Amaranthaceae	Shrub
160	<i>Diplocyclospalmatus L.</i>	Striped Cucumber	Cucurbitaceae.	Herb
161	<i>Diospyros malabarica</i>	Tembhurni	Ebenaceae	Tree
162	<i>Garcinia india</i>	Kokam	Clusiaceae	Tree
163	<i>Samanea saman</i>	Rain tree	Fabaceae	Tree
164	<i>Cassia fistula</i>	Bahava	Fabaceae	Tree
165	<i>Centella asiatica</i>	Mandukparni	Apiaceae	Herb
166	<i>Curcuma longa</i>	Turmeric	Zingiberaceae	Herb
167	<i>Alstoniascholaris</i>	Saatwin	Apocynaceae	Tree
168	<i>Passiflora coccinea</i>	Passifloraceae	Passifloraceae	Shrub
169	<i>Beaumontia grandiflora</i>	Easter Lily Vine	Apocynaceae	Climber
170	<i>Moullava spicata</i>	cork bush	Fabaceae	Tree
171	<i>Acacia concinna</i>	Shikakai	Fabaceae	Tree
172	<i>Vallarissolanacea</i>	Bread Flower	Apocynaceae	Climber
173	<i>Ipomoea aqutica</i>	Morning-glory	Convolvulaceae	Climber
174	<i>Lysilomalatisliquam</i>	False tamarind	Fabaceae	Tree
175	<i>Phyllanthus reticulatus</i>	Black-Honey Shrub	Phyllanthaceae.	Shrub
176	<i>Mallotusphilippensis</i>	Kampillaka	Euphorbiaceae	Tree
177	<i>Syzygiumjambos</i>	Rose apple	Myrtaceae	Tree
178	<i>Barleria cristata L.</i>	Philippine viole	Acanthaceae	Herb

179	<i>Boerhaviadiffusa</i>	punarnava	Nyctaginaceae	Herb
180	<i>Markhamia lutea</i>	Nile tulip	Bignoniaceae	Tree
181	<i>Caesalpinia caritaria</i>	Divi Divi	Fabaceae	Tree
182	<i>Hibiscus mutabilis</i>	Confederate Rose	Malvaceae	Shrub
183	<i>Catharanthus rosesus</i>	Sadaphuli	Apocynaceae	Herb
184	<i>Colocasia esculanta</i>	Suran	Araceae	Herb
185	<i>Royalstonea regia</i>	Royal Palm	Arecaceae	Tree
186	<i>Senna siamea</i>	Kassod Tree	Fabaceae	Tree
187	<i>Cassia grandis</i>	Horse Cassia	Fabaceae	Tree
188	<i>SpathodeaCampanulata</i>	Flame of the Forest	Bignoniaceae	Tree
189	<i>Grevillea robusta</i>	silk oak	Proteaceae	Tree
190	<i>Tabebuia aurea</i>	Trumpet plant	Bignoniaceae	Tree
191	<i>Erythrina indica</i>	Pangara	Fabaceae	Tree
192	<i>Pimetata dioica</i>	All spice	Myrtaceae	Herb
193	<i>Callianadrahaematocephala</i>	Powder ough	Fabaceae	Tree
194	<i>Ficus religiosa</i>	pepal	Moraceae	Tree
195	<i>Bauhinia variegata</i>	Kanchan	Fabaceae	Tree
196	<i>Abelmoschus moschatus</i>	Musk mallow	Malvaceae	Herb
197	<i>Abutilon indicum</i>	Country mallow	Malvaceae	Shrub
198	<i>Achyranthes aspera</i>	Devil's horsewhip	Amaranthaceae	Herb
199	<i>Ageratum conyzoides</i>	Goat weed	Asteraceae	Herb
200	<i>Alternanthera brasiliiana</i>	Brazilian joyweed	Amaranthaceae	Shrub
201	<i>Crotalaria sagittalis</i>	Arrowhead rattlebox	Fabaceae	Herb
202	<i>Cyanotisaxillaris</i>	Spreading dayflowe	Commelinaceae	Herb
203	<i>Cynodondactylon</i>	Bermuda grass	Poaceae	Herb
204	<i>Leucas aspera</i>	Common leucas	Lamiaceae	Herb
205	<i>Ludwigiaadscendens</i>	Creeping water primrose	Onagraceae	Herb
206	<i>Malachra capitata</i>	Brazil Jute	Malvaceae	Herb
207	<i>Oxalis corniculata</i>	Creeping wood sorrel	Oxalidaceae	Herb
208	<i>Artocarpus lakoocha</i>	Lakuch/monkey jack	Moraceae	Tree
209	<i>Phyllanthus niruri</i>	Stonebreake	Euphorbiaceae	Herb
210	<i>Adentherapavonina</i>	Ratangunj	Fabaceae	Tree
211	<i>Sida cordifolia</i>	Flannel Weed	Malvaceae	Shrub
212	<i>Millingtoniahorrtensis</i>	Buch	Bignoniaceae	Tree
213	<i>Atrabotryshexapetalous</i>	Hirva chapha	Annonaceae	climber

214	<i>Muraraya Paniculata</i>	Kunti	Rutaceae	Shrub
215	<i>Melia azedarach</i>	Bachneem	Meliaceae	Tree
216	<i>Antigoninleptopus</i>	Icecream creeper	Polygonaceae	Climber
217	<i>Vallerissolanacea</i>	Vishmogerri	Apocynaceae	Shrub
218	<i>Merremia tuberosa</i>	Woodrose	Convolvulaceae	Climber
219	<i>Acacia concinna</i>	Shikakai	Fabaceae	Shrub
220	<i>Argyreia nervosa</i>	Samudrashok	Convolvulaceae	Climber
221	<i>Pyrostegiavenusta</i>	Sankrantvel	Bignoniaceae	Climber
222	<i>Caesalpinia bounduc</i>	Sagergota	Fabaceae	Shrub
223	<i>Ruelliprostrata</i>	Prostrate wild petunia	Acanthaceae	Herb
224	<i>Schefflera elliptica</i>	Pachotra	Araliaceae	Shrub
225	<i>Butea superba</i>	Palasvel	Fabaceae	Climber
226	<i>Combretum latifolium</i>	Piluk	Combretaceae	Climber
227	<i>Dalbergia horrida</i>	Pentgul	Fabaceae	Climber
228	<i>Dalbergia volubilis</i>	Alai	Fabaceae	Climber
229	<i>Monstera deliciosa</i>	Monstera	Araceae	Climber
230	<i>Combretum indicum</i>	Rangunvel	Combretaceae	Climber
231	<i>Porana paniculata</i>	Heemvel	Convolvulaceae	Climber
232	<i>Derris scandens</i>	Ambri	Fabaceae	Climber
233	<i>Portulaca oleracea</i>	Common purslane	Portulacaceae	Herb
234	<i>Physalis minima</i>	Sunberry	Solanaceae	Herb
235	<i>Lantana camara</i>	Wild sage	Verbenaceae	Shrub
236	<i>Ipomoea obscura</i>	Obscure morning glory	Convolvulaceae	Herb
237	<i>Euphorbia hirta</i>	Asthma Herb	Euphorbiaceae	Herb
238	<i>Datura metel</i>	Thorn apple	Solanaceae	Shrub

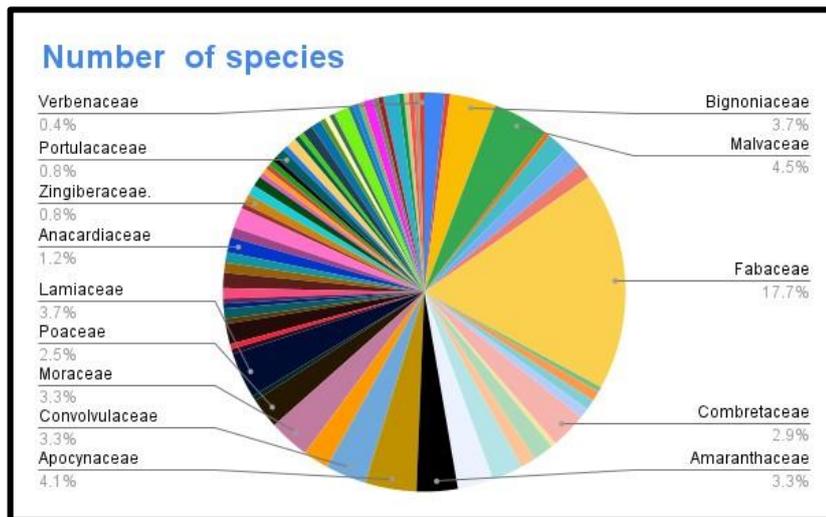


Figure no.2 Graphical representation of Number of species per family

The most dominating family was the Fabaceae family with a total number of Forty genera (17.7%) was recorded during the survey. The Malvaceae family was the second dominating family with a total number of Eleven genera (4.5%) which was documented during from the Research area. The Apocynaceae family had in total of (4.1%) of superiority with an aggregate number of Ten genus which were recorded during the survey. The family Bignoniaceae was around (3.7%) covering at around nine genera. The Amaranthaceae and Moraceae, lamiaceae family had a dominance of 8 Genus with (3.3%). The Combretaceae family had all around 7 genus and species with (2.9%). The Anacardiaceae family had (1.2%) of dominance with all around 3 Genus and species. The Portulacaceae and Zingerbaceae family had only two genus and species with (0.8%) which was documented during the survey. Although thirty-two families in total were recorded with only one Genus and species with (0.4%) which include Oleaceae, Malpighiaceae, Rhamnaceae, Celastraceae, Lythraceae, Pinaceae, Pandanaceae, Loganiaceae, Calophyllaceae, Thymelaeaceae, Plumbaginaceae, Begoniaceae, Costaceae, Crassulaceae, Musaceae, Salicaceae, Muntingiaceae, Dilleniaceae, Onagraceae, Oxalidaceae, Polygonaceae, Araliaceae, Verbanaceae.

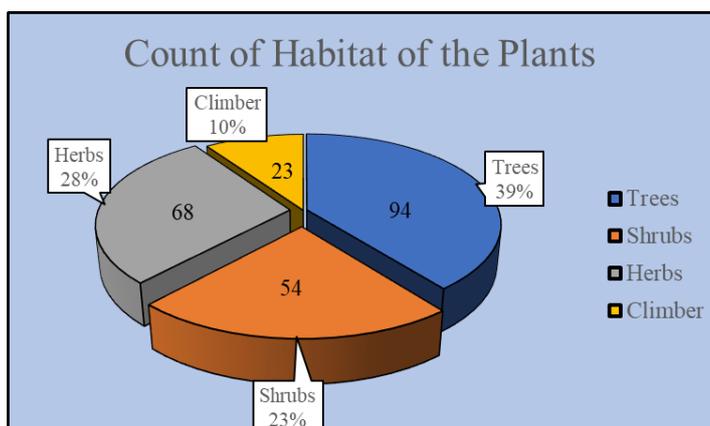


Figure no.3 Graphical representation of Distribution of habit

Habit-wise categorization of plant from the research area demonstrates that there are 94 trees with (46.6%) of dominance which was followed by the Shrub which included almost 54 shrubs with (26.0%). Other habits like Herbs which had almost 68 herbs with (23.3%) of superiority and there

were about 23 climbers with (4.1%) of dominance. As a result, the domination of tree species with a higher number of 46.6 percent was reported in the research field.

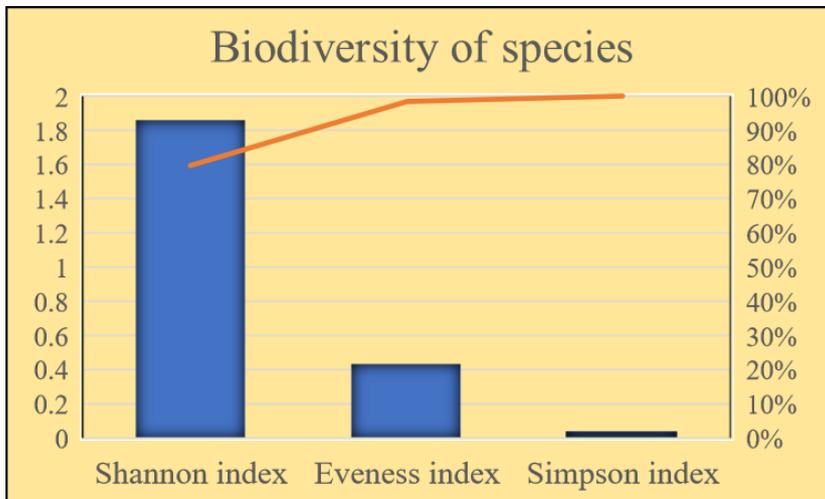


Figure no.4 Graphical representation of Biodiversity of species

In the current study the value of Simpsons Diversity Index is 0.04. The results presented that the Research area had a higher level of Diversity. Shannon's Wiener Index is calculated to detect the species richness as overall index of diversity. The value of Shannon index ranges from 1 and 2. Higher the value greater the species diversity. In this study the Shannon Wiener index and Evenness index is 1.86 and 0.43 respectively.

**Conclusion:** -For the first time, a preliminary floristic survey was conducted on the angiosperms found in Tandulwadi (marich van), saphale village, Palghar District area. The inquiry revealed that, over the course of the study period, 239 taxa from 73 families of angiosperms were identified. The plants identified from the research region were discovered to provide significant advantages for human health. It was discovered that the research region was primarily dominated by plants of medicinal significance, followed by plants that were used for food and lumber. Future research in the areas of documenting many angiosperms and studying their value seems promising. Plants found in India's natural environments may prove to be a very valuable resource for human welfare.

**Future scope:** -The area should be developed into a tourist spot so that the trees in this area will be conserved and also other anthropogenic activities should be stopped which disturbs the biodiversity. The cultivation of the endangered or rare plants is necessary because it has abundant uses and if not conserved it will be vanished.

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**References: -**

1. ARSHAD MAHMOOD KHAN, RAHMATULLAH QURESHI, MIRZA FAISAL QASEEM, MUBASHRAH MUNIR, MUHAMMAD ILYAS AND ZAFEER SAQIB, FLORISTIC CHECKLIST OF DISTRICT KOTLI, AZAD JAMMU & KASHMIR, Pak. J. Bot., 47(5): 1957-1968, 2015

2. Basha Kolar, A., S, Palanivel., Noor Mohamed, M. S., Mohamed, S. S., Shareef Khan, M., Raj.S.G, A., Ibrahim.V, M., & Nowshath. A, M. (2021). FLORISTIC STUDY ON ANGIOSPERMS SURROUNDING THE MEDAVAKKAM LAKE, CHENGALPATTU DISTRICT, TAMIL NADU, INDIA. *PLANT ARCHIVES*, 21(1). <https://doi.org/10.51470/PLANTARCHIVES.2021.v21.no1.271>
3. Bhagat, A., & M.s.jangid, K. P. A. (2021). FLORISTIC DIVERSITY STUDY OF DHANSURA TALUKA, DISTRICT ARAVALLI, GUJARAT, INDIA. *LIFE SCIENCES LEAFLETS*, 138, 13–20
4. Brintha, T. S. S., & Jayakumar, S. (n.d.). *Floristic Inventory Of Angiosperms In Ponmalai Hillock Of Kanniyakumari District, Tamil Nadu, India*. 11.
5. Kaur, K., Sidhu, M. C., & Ahluwalia, A. S. (2017). Angiosperm diversity in Doaba region of Punjab, India. *Journal of Threatened Taxa*, 9(8), Article 8. <https://doi.org/10.11609/jott.2748.9.8.10551-10564>
6. M.R. Almeida. [1996]. Flora of Maharashtra (Part 1 to 6) Thomas Paul Almeida for Blatter Herbarium, St Xavier's college
7. Neha Mishra, Arvind Pareek, Floristic Diversity of Angiosperms with special reference to their medicinal properties from Kota district of Rajasthan, India, *International Journal of Advanced Research* (2015), Volume 3, Issue 12, 994 – 1007
8. Shendage, S. M. (2019). *SURVEY OF ANGIOSPERM DIVERSITY FROM LATERITIC PLATEAUS OF KONKAN*.
9. Sukumaran, S., & Jeeva, S. (2011). Angiosperm flora from wetlands of Kanyakumari district, Tamilnadu, India. *Check List*, 7(4), Article 4. <https://doi.org/10.15560/7.4.486>
10. Vaidya Vijay Shankar Kale. [2016]. Charaka Samhita Marathi Chaukhamba Sanskrit Pratishthan
11. Wagay Nasir Aziz, Deshmukh VR, and Rothe SP, A floristic survey of flowering plants from Vidyabharati Mahavidyalaya Campus, Amravati (Maharashtra) India, *Int. J. of Life Sciences*, 2015, Vol. 3(3): 249-254