



# Angiospermic Diversity of Gobichettipalayam Taluk

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## ABSTRACT

This study provides a comprehensive inventory of the angiospermic flora within the Gobichettipalayam Taluk of Erode District, Tamil Nadu. Field investigations conducted during the 2024–2025 period revealed a high level of botanical diversity. A total of 310 species were identified, representing 77 distinct families. The floristic composition is heavily weighted toward Dicotyledons, which comprise 262 species, while Monocotyledons are represented by 48 species. This distribution reflects the typical evolutionary diversity found in the semi-arid to tropical regions of Tamil Nadu. The categorization of the recorded species, based on their growth forms, highlights the prevalence of ephemeral and perennial herbs. Herbs: 115 species (Dominant), Shrubs: 90 species, Trees: 64 species, Climbers: 40 species, Succulents: 1 species (Least represented).

**Keywords:** Floristic survey, Taxonomy, Gobichettipalayam taluk and Erode district.

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## Introduction

In a broad sense, biodiversity represents the comprehensive assembly of species, populations, and ecological communities that exist within both natural and human-managed environments. This biological variety spans diverse landscapes, including arid deserts, dense forests, aquatic ecosystems such as rivers and lakes, and agricultural zones. Specifically, ecosystem diversity highlights the variety of habitats available across different geographical scales on Earth. Beyond its ecological role, biodiversity is fundamental to human survival, providing a consistent and varied supply of flora and fauna for global food security [2].

India holds a prestigious status as one of the world's 17 "megadiverse" nations, sheltering a vast proportion of the planet's biological wealth [10]. As a subcontinent, its unique positioning within the global biogeographical realm allows it to host an extraordinary range of life forms and habitats [5].

Tamil Nadu stands out as one of India's most biologically significant states. Its geography is a mosaic of varied ecosystems, ranging from the mountain ranges of the Western and Eastern Ghats to expansive coastal regions, wetlands, and dry deciduous forests. The state is a sanctuary for numerous endemic species, making the preservation of its flora and fauna a critical environmental priority. An indigenous conservation model is evident in the state's 5,000+ sacred groves. These small forest fragments are protected by local communities through traditional religious beliefs. Globally, over 50,000 species are harvested for their medicinal and aromatic properties, serving as the foundation for perfumes, personal care, and traditional healing systems such as Ayurveda, Siddha, and Unani [6]. Ultimately, the human species remains intrinsically linked to the natural world.

We rely on healthy ecosystems for the most fundamental necessities of life, including the oxygen required for respiration, as well as our daily requirements for water, nutrition, and shelter.

## Materials and Methods

### 2.1 Study area

Gobichettipalayam Taluk is situated at an average elevation of 213 meters (699 ft) above mean sea level. Geographically, the region is influenced by the Western Ghats, which border the area to the west and north. The study site is located between the coordinates of 11°27'20" N latitude and 77°26'01" E longitude. The environmental conditions of the Taluk are characterized by the following sectors. The area receives an average annual precipitation of 92 cm. Rainfall is typically moderate to high, though it remains unpredictable and unevenly distributed throughout the year. The climate is predominantly dry and sultry, with peak temperatures occurring during the summer months. A distinct cooling trend is observed during the winter season, particularly from November to January, when temperatures often drop below the regional average.



Figure 1: Gobichettipalayam taluk map

## 2.2 Field Study and Identification of Plants

A comprehensive floristic survey was carried out across Gobichettipalayam Taluk during 2024–2025. To document the full range of seasonal plant variations, the survey was conducted at regular intervals. Following conservation ethics, all plant samples were collected using non-destructive methods. While most plants were identified in their natural environment, specimens needing further detailed analysis were collected and made into herbarium sheets. This preservation enabled thorough morphological examination and long-term record-keeping. The taxonomic identities of the plants were determined and verified through consultation of authoritative regional and national floras. The main references used for confirmation included:

- Gamble and Fischer (1915–1935): *Flora of the Presidency of Madras*
- Fyson (1932): *The Flora of the South Indian Hill Stations*
- Hooker (1897): *The Flora of British India*
- Henry et al. (1994): *Flora of Tamil Nadu, India*

## Results and Discussion

The floristic study of Gobichettipalayam Taluk revealed a diverse collection of 310 angiosperm species across 77 families. A taxonomic analysis shows a clear dominance of Dicotyledonae, which includes 262 species (84.5%), while Monocotyledonae features 48 species (15.5%). According to the Bentham and Hooker system, Polypetalae emerges as the main subclass (40.9%), followed by Gamopetalae (30%), Monochlamydeae (13.2%), and Monocotyledons (15.4%). Analyzing the vegetative habits within the area indicates that herbs are the most common life form with 115 species, suggesting a rich herbaceous understory. This is followed by shrubs (90 species), trees (60 species), and climbers (40 species), while succulents are the least represented, with just one species. Additionally, the study identifies Leguminosae as the most important family, with 25 genera and 25 species. Other notable families contributing to the region's biodiversity include Poaceae (20 species), Malvaceae (18 species), and Amaranthaceae and Euphorbiaceae, each with 15 species. This distribution highlights the ecological significance of the Gobichettipalayam area as an important storehouse of regional plant diversity.

The nutritional aspects of some wild edible plants play a crucial role in the diet and food security of indigenous communities in India, including *Alternanthera sessilis*, *Amaranthus campestris*, *Amaranthus caudatus*, *Amaranthus dubius*, *Amaranthus spinosus*, *Amaranthus viridis*, *Psilotrichum ellioti*, *Scadoxus multiflorus*, *Zizyphus jujuba*, *Syzygium cumini*, *Areca catechu*, *Arachis hypogea*, *Artocarpus heterophyllus*, and *Anona squamosa*. [13]

The survey highlighted several species with significant medicinal and dietary value, many of which are integrated into local daily consumption. Notably, species such as *Coriandrum sativum* [15], *Cissus quadrangularis*, and *Centella asiatica* [9] are recognized for their therapeutic potential. Other important medicinal plants recorded include *Eclipta alba* [7], *Alternanthera sessilis*, *Acalypha indica*, *Abutilon indicum*, and *Euphorbia hirta* [1].

The region also supports a variety of nutrient-dense green leafy vegetables and woody perennials, including *Spinacia oleracea*, *Kedrostis foetidissima*, *Moringa oleifera*, *Murraya koenigii*, *Phyllanthus niruri*, and *Sesbania grandiflora*.

These plants are valued not only as food sources but also for their functional health benefits. They are particularly noted for enhancing digestive health and possessing potent antimicrobial and antioxidant properties, making them vital components of traditional wellness practices and daily nutrition.

The Cucurbitaceae family represents a significant component of the local flora, offering substantial nutritional and medicinal benefits due to its complex phytochemical profile. Several species from this family are actively utilized in both traditional and contemporary medicinal practices, including *Cucumis maderaspatanus*, *Cucumis sativus*, *Cucurbita pepo*, *Luffa acutangula*, *Luffa cylindrica*, *Lagenaria siceraria*, *Kedrostis foetidissima*, and *Coccinia grandis* [8]. Furthermore, the genus *Amaranthus* is globally recognized for its high nutrient density and therapeutic versatility [11, 4]. Specifically, *Amaranthus viridis* and *Amaranthus spinosus* are valued for their medicinal properties; leaf and flower decoctions or infusions are traditionally applied to manage inflammatory conditions such as gout. These plants serve multiple pharmacological roles in local healthcare, acting as natural antiseptics, diuretics, and laxatives.

*Spinacia oleracea* is low in carbohydrates and dietary fiber. (3.6 g per 100 g), (2.9 g per 100 g with essential proteins and low in fat (0.4 g per 100 g) making it a low calorie food as it is rich in Vitamins A, Vitamin C, Vitamin K and Vitamin B9 are rich in minerals, phytochemicals and anti-oxidants moreover it has high health benefits such as supports eye health, Boosts immunity, Improves Bone Health, Aids digestion, Regulates blood pressure and Reduces oxidative stress [14,3].

Table 1: Checklist of plants in the study area

S.No	Binomial name	Family	Habit	Sub class
1	<i>Abelmoschus esculentus</i> , W. & A	Malvaceae	Shrub	Polypetalae
2	<i>Abutilon indicum</i> , G.Don	Malvaceae	Shrub	Polypetalae
3	<i>Abutilon mauritanium</i> , G. Don	Malvaceae	Shrub	Polypetalae
4	<i>Acacia nilotica</i> , Willd	Mimisoideae	Tree	Polypetalae
5	<i>Acalypha indica</i> , Linn	Euphorbiaceae	Herb	Monochlamydeae
6	<i>Achyranthes aspera</i> , Linn	Amaranthaceae	Herb	Monochlamydeae
7	<i>Adhatoda vasica</i> , Nees	Acanthaceae	Shrub	Gamopetalae
8	<i>Aegle marmelos</i> , Corr.	Rutaceae	Tree	Polypetalae
9	<i>Aerva lanata</i> , Juss	Amaranthaceae	Herb	Monochlamydeae
10	<i>Agave americana</i> , Linn	Liliaceae	Shrub	Monocot
11	<i>Albizia amara</i> , Boiv	Mimosoideae	Tree	Polypetalae
12	<i>Albizia lebbbeck</i> , Benth	Leguminosae	Tree	Polypetalae
13	<i>Albizia saman</i> , Benth	Leguminosae	Tree	Polypetalae
14	<i>Allamanda blanchetti</i> , Linn	Apocyanaceae	Shrub	Gamopetalae
15	<i>Allamanda cathartica</i> , Linn	Apocyanaceae	Shrub	Gamopetalae
16	<i>Allmania nodiflora</i> , R.Br	Amaranthaceae	Herb	Monochlamydeae
17	<i>Aloe barbadensis</i> , Linn	Liliaceae	Succulent	Monocot
18	<i>Alternanthera sessilis</i> , R.Br	Amaranthaceae	Herb	Monochlamydeae
19	<i>Amaranthus campestris</i> , Linn	Amaranthaceae	Herb	Monochlamydeae
20	<i>Amaranthus caudatus</i> , Linn	Amaranthaceae	Herb	Monochlamydeae
21	<i>Amaranthus dubius</i> , Linn	Amaranthaceae	Herb	Monochlamydeae
22	<i>Amaranthus spinosus</i> , Linn	Amaranthaceae	Herb	Monochlamydeae
23	<i>Amaranthus viridis</i> , Linn	Amaranthaceae	Herb	Monochlamydeae
24	<i>Anona squamosa</i> , Linn	Annonaceae	Tree	Polypetalae
25	<i>Antigonon leptopus</i> , Hk. & A.	Polygonaceae	Climber	Monochlamydeae
26	<i>Arachis hypogea</i> , Linn	Fabaceae	Herb	Polypetalae
27	<i>Areca catechu</i> , Linn	Palmaceae	Tree	Monocot
28	<i>Artabotrys odorantissimus</i> , R.Br	Annonaceae	Shrub	Polypetalae
29	<i>Artocarpus heterophyllus</i> , Forst	Moraceae	Tree	Monochlamydeae
30	<i>Asteracantha longifolia</i> , Ness	Acanthaceae	Shrub	Gamopetalae
31	<i>Asystasia gangetica</i> , T. And	Acanthaceae	Herb	Gamopetalae
32	<i>Azadirachta indica</i> , A.Juss	Meliaceae	Tree	Polypetalae
33	<i>Bacopa monnieri</i> , Linn	Scrophulariaceae	Climber	Gamopetalae
34	<i>Bambusa vulgaris</i> , Schreb	Graminae	Herb	Monocot
35	<i>Barleria buxifolia</i> , Linn	Acanthaceae	Shrub	Gamopetalae
36	<i>Basella alba</i> , Linn	Chenopodiaceae	Climber	Monochlamydeae
37	<i>Bauhinia purpurea</i> , Linn	Cesalpiniaceae	Tree	Polypetalae
38	<i>Bauhinia tomentosa</i> , Linn	Cesalpiniaceae	Tree	Polypetalae
39	<i>Bauhinia variegata</i> , Linn	Cesalpiniaceae	Tree	Polypetalae
40	<i>Benincasa hispida</i> , Savi	Cucurbitaceae	Climber	Polypetalae
41	<i>Blepharis maderaspatanus</i> , Juss	Acanthaceae	Herb	Gamopetalae
42	<i>Boerhaavia diffusa</i> , Linn	Nyctaginaceae	Herb	Monochlamydeae
43	<i>Bombax ceiba</i> , Linn	Malvaceae	Tree	Polypetalae
44	<i>Borassus flabellifer</i> , Linn	Palmaceae	Tree	Monocot

45	<i>Bougainvillea spectabilis</i> , Willd	Nyctaginaceae	Shrub	Monochlamydeae
46	<i>Brassica juncea</i> , Hk.f	Cruciferae	Herb	Polypetalae
47	<i>Bryophyllum pinnatum</i> , Kurz	Crassulaceae	Herb	Polypetalae
48	<i>Cajanus cajan</i> , Spr	Fabaceae	Shrub	Polypetalae
49	<i>Calophyllum inophyllum</i> ,Linn	Guttiferae	Tree	Polypetalae
50	<i>Calotropis gigantea</i> ,R.Br	Apocyanaceae	Shrub	Gamopetalae
51	<i>Campsis grandiflora</i> , Thunb	Bignoniaceae	Climber	Gamopetalae
52	<i>Canavalia rosea</i> , DC	Fabaceae	Shrub	Polypetalae
53	<i>Cantinoa mutabilis</i> , Harley	Lamiaceae	Shrub	Gamopetalae
54	<i>Capsicum annuum</i> , Linn	Solanaceae	Herb	Gamopetalae
55	<i>Carica papaya</i> , Linn	Cariaceae	Tree	Polypetalae
56	<i>Cascabella thevetia</i> , Linn	Apocyanaceae	Shrub	Gamopetalae
57	<i>Caselpinia pulcherrima</i> , Swartz	Cesalpiniaceae	Shrub	Polypetalae
58	<i>Cassia alata</i> , Linn	Cesalpiniaceae	Shrub	Polypetalae
59	<i>Cassia fistula</i> , Linn	Leguminosae	Tree	Polypetalae
60	<i>Cassia occidentalis</i> , Linn	Leguminosae	Tree	Polypetalae
61	<i>Cassia siamea</i> , Lam	Cesalpiniaceae	Shrub	Polypetalae
62	<i>Casuarina equisetifolia</i> ,Forst	Casuarinaceae	Tree	Monochlamydeae
63	<i>Catharanthus roseus</i> , G.Don	Apocyanaceae	Herb	Gamopetalae
64	<i>Celome feline</i> , Linn	Capparidaceae	Herb	Polypetalae
65	<i>Celosia argentea</i> , Linn	Amaranthaceae	Herb	Monochlamydeae
66	<i>Cenchrus ciliaris</i> , Linn	Asteraceae	Herb	Gamopetalae
67	<i>Cenchrus echinatus</i> , Linn	Asteraceae	Herb	Gamopetalae
68	<i>Centella asiatica</i> , Urb	Apiaceae	Herb	Polypetalae
69	<i>Cerus hexagonus</i> , Linn	Cactaceae	Tree	Polypetalae
70	<i>Chloris barbata</i> , Sw	Poaceae	Herb	Monocot
71	<i>Chromola odorata</i> , Linn	Asteraceae	Herb	Gamopetalae
72	<i>Cicca acida</i> , Linn	Euphorbiaceae	Tree	Monochlamydeae
73	<i>Cissus quadrangularis</i> , Linn	Vitaceae	Climber	Polypetalae
74	<i>Citrus aurantifolia</i> , Linn	Rutaceae	Tree	Polypetalae
75	<i>Citrus aurantium</i> , Linn	Rutaceae	Tree	Polypetalae
76	<i>Citrus limon</i> , Linn	Rutaceae	Tree	Polypetalae
77	<i>Citrus medica</i> , Linn	Rutaceae	Tree	Polypetalae
78	<i>Cleome viscosa</i> , Linn	Cruciferae	Herb	Polypetalae
79	<i>Cleome gynandra</i> , Linn	Cruciferae	Herb	Polypetalae
80	<i>Clitoria ternata</i> , Linn	Fabaceae	Climber	Polypetalae
81	<i>Coccinia grandis</i> , W.&A.	Cucurbitaceae	Climber	Polypetalae
82	<i>Cocos nucifera</i> , Linn	Palmaceae	Tree	Monocot
83	<i>Coleus amboinicus</i> ,Lour.	Lamiaceae	Herb	Gamopetalae
84	<i>Commelina benghalensis</i> , Linn	Commelinaceae	Herb	Monocot
85	<i>Commiphora caudata</i> , Engl	Burseraceae	Tree	Polypetalae
86	<i>Corchorus tridens</i> , Linn	Asteraceae	Herb	Gamopetalae
87	<i>Cordia sebastena</i> , Linn	Boraginaceae	Tree	Gamopetalae
88	<i>Cardiospermum haliacabum</i> , Linn	Sapindaceae	Herb	Polypetalae
89	<i>Cosmos caudatus</i> ,Cav	Asteraceae	Shrub	Gamopetalae
90	<i>Costus igneus</i> , Linn	Zingiberaceae	Shrub	Monocot
91	<i>Couroupita surinamensis</i> , Linn	Lecythidaceae	Tree	Polypetalae
92	<i>Courtoisia cyperoides</i> , Nees	Cyperaceae	Herb	Monocot
93	<i>Crassula pellucida</i> , Linn	Crassulaceae	Herb	Polypetalae
94	<i>Crinum latifolium</i> ,Linn	Amaryllidaceae	Herb	Polypetalae
95	<i>Crossandra undulaefolia</i> , Salisb	Acanthaceae	Shrub	Gamopetalae
96	<i>Crotalaria retusa</i> , Willd	Fabaceae	Shrub	Polypetalae
97	<i>Croton bonplandianus</i> , Linn	Euphorbiaceae	Herb	Monochlamydeae
98	<i>Crucihimalaya wallichii</i> , Hk. F	Brassicaceae	Herb	Polypetalae
99	<i>Cucumis maderaspatanus</i> , Linn	Cucurbitaceae	Climber	Polypetalae
100	<i>Cucumis sativus</i> ,Linn	Cucurbitaceae	Climber	Polypetalae
101	<i>Cucurbita pepo</i> ,DC	Cucurbitaceae	Climber	Polypetalae
102	<i>Curcuma aromatica</i> , Sal	Zingiberaceae	Herb	Monocot
103	<i>Curcuma longa</i> , Linn	Zingiberaceae	Herb	Monocot
104	<i>Curcuma pseudomontana</i> , Grah	Zingiberaceae	Herb	Monocot
105	<i>Cynodon dactylon</i> ,Pers	Poaceae	Herb	Monocot
106	<i>Cyperus digitatus</i> , Roxb.	Cyperaceae	Herb	Monocot
107	<i>Cyperus iria</i> , Linn	Cyperaceae	Herb	Monocot
108	<i>Cyperus kyllingtiella</i> , Linn	Cyperaceae	Herb	Monocot
109	<i>Cyperus rotundus</i> ,Linn	Cyperaceae	Herb	Monocot
110	<i>Cyperus tetragonus</i> , Roxb	Cyperaceae	Herb	Monocot
111	<i>Dactyloctenium aegypticum</i> , Willd	Poaceae	Herb	Monocot
112	<i>Daemia extensa</i> , R.Br	Asclepiadaceae	Climber	Gamopetalae
113	<i>Datura metel</i> ,Linn	Solanaceae	Shrub	Gamopetalae
114	<i>Delonix elata</i> ,Gamb	Leguminosae	Tree	Polypetalae
115	<i>Delonix regia</i> ,Raf	Cesalpiniaceae	Tree	Polypetalae
116	<i>Desmodium parviflorum</i> , Bl	Fabaceae	Shrub	Polypetalae
117	<i>Desmostachya bipinnata</i> , Stapf	Poaceae	Herb	Monocot
118	<i>Dianthera pectoralis</i> , Linn	Acanthaceae	Herb	Gamopetalae
119	<i>Dichroanthus cinerea</i> , DC	Fabaceae	Shrub	Polypetalae
120	<i>Dicliptera paniculata</i> , Wall	Acanthaceae	Herb	Gamopetalae
121	<i>Dieffenbachia seguine</i> , Griff	Araceae	Shrub	Monocot
122	<i>Digitaria ciliaris</i> , Hom	Poaceae	Herb	Monocot
123	<i>Digitaria sanguinalis</i> , Scop	Poaceae	Herb	Monocot
124	<i>Diplocyclos palmatus</i> , Lindl	Cucurbitaceae	Climber	Polypetalae
125	<i>Dracaena angustifolia</i> , Linn	Liliaceae	Shrub	Monocot
126	<i>Dracaena reflexa</i> , Wall	Liliaceae	Shrub	Monocot
127	<i>Dracaena trifasciata</i> , Linn	Liliaceae	Shrub	Monocot
128	<i>Duranta repens</i> , Jacq	Verbanaceae	Shrub	Gamopetalae
129	<i>Echinochloa colona</i> , Link	Poaceae	Herb	Monocot
130	<i>Eclipta alba</i> , Hassk	Asteraceae	Herb	Gamopetalae
131	<i>Eichhornia crassipes</i> , Solms	Pontederiaceae	Herb	Monocot
132	<i>Epiphyllum oxypetalum</i> , Cass	Asteraceae	Herb	Gamopetalae

133	<i>Epipremnum aureum</i> , Adans	Araceae	Climber	Monocot
134	<i>Eragrostis atrovirens</i> , Beauv	Poaceae	Herb	Monocot
135	<i>Ervatamia coronaria</i> ,Stapf	Apocyanaceae	Shrub	Gamopetalae
136	<i>Euphorbia heterophylla</i> , Linn	Euphorbiaceae	Herb	Monochlamydeae
137	<i>Euphorbia hirta</i> ,Linn	Euphorbiaceae	Herb	Monochlamydeae
138	<i>Euphorbia intergerima</i> , Linn	Euphorbiaceae	Shrub	Monochlamydeae
139	<i>Euphorbia pinetorum</i> , Linn	Euphorbiaceae	Herb	Monochlamydeae
140	<i>Ficus benghalensis</i> , Linn	Moraceae	Tree	Monochlamydeae
141	<i>Ficus racemosa</i> , Roxb	Moraceae	Tree	Monochlamydeae
142	<i>Ficus religiosa</i> , Linn	Moraceae	Tree	Monochlamydeae
143	<i>Galphemia glauca</i> , Wall	Malpighiaceae	Shrub	Polypetalae
144	<i>Gloriosa superba</i> , Linn	Liliaceae	Tree	Monocot
145	<i>Gomphandra coriacea</i> , Wall	Icacinaceae	Shrub	Polypetalae
146	<i>Gompherna globosa</i> , Linn	Amaranthaceae	Herb	Monochlamydeae
147	<i>Gompherna procumbens</i> , Jacq	Amaranthaceae	Herb	Monochlamydeae
148	<i>Gossypium hirsutum</i> , Wall	Malvaceae	Shrub	Polypetalae
149	<i>Guettarda speciosa</i> , Warb	Rubiaceae	Tree	Gamopetalae
150	<i>Gynandropsis pentaphylla</i> , DC	Cruciferae	Herb	Polypetalae
151	<i>Hamelia patens</i> , Linn	Rubiaceae	Shrub	Gamopetalae
152	<i>Heliotropium strigosum</i> , Linn	Boraginaceae	Herb	Gamopetalae
153	<i>Hibiscus cannabinus</i> , Linn	Malvaceae	Shrub	Polypetalae
154	<i>Hibiscus fragilis</i> , Linn	Malvaceae	Shrub	Polypetalae
155	<i>Hibiscus panduriformis</i> , Sweet	Malvaceae	Shrub	Polypetalae
156	<i>Hibiscus rosa sinensis</i> , Linn	Malvaceae	Shrub	Polypetalae
157	<i>Hibiscus vitifolius</i> , Linn	Malvaceae	Shrub	Polypetalae
158	<i>Hydrilla verticillata</i> , Royle	Hydrocharitaceae	Herb	Monocot
159	<i>Hydrocotyle umbellata</i> , Linn	Umbelliferae	Herb	Polypetalae
160	<i>Hygrophila auriculata</i> , R.Br	Acanthaceae	Herb	Gamopetalae
161	<i>Hygrorrhiza aristata</i> , Ness	Poaceae	Herb	Monocot
162	<i>Hyptis suaveolens</i> ,Poit	Lamiaceae	Shrub	Gamopetalae
163	<i>Impatiens balsamina</i> , Linn	Balsaminaceae	Herb	Polypetalae
164	<i>Indigofera wightii</i> , Grah	Fabaceae	Shrub	Polypetalae
165	<i>Ipomaea lacunose</i> , Cl	Convolvulaceae	Climber	Gamopetalae
166	<i>Ipomaea digitata</i> , Linn	Convolvulaceae	Climber	Gamopetalae
167	<i>Ipomaea obscura</i> , K – Grawl	Convolvulaceae	Climber	Gamopetalae
168	<i>Ipomaea pes – caprae</i> , Sweet	Convolvulaceae	Climber	Gamopetalae
169	<i>Ipomaea campanulata</i> ,Linn	Convolvulaceae	Climber	Gamopetalae
170	<i>Ixora coccinea</i> ,Linn	Rubiaceae	Shrub	Gamopetalae
171	<i>Jasminum auriculata</i> ,Vahl	Oleaceae	Climber	Gamopetalae
172	<i>Jasminum grandiflorum</i> ,Linn	Oleaceae	Climber	Gamopetalae
173	<i>Jasminum officinale</i> , Linn	Oleaceae	Climber	Gamopetalae
174	<i>Jasminum sambac</i> , Ait	Oleaceae	Climber	Gamopetalae
175	<i>Jatropha gossypifolia</i> , Linn	Euphorbiaceae	Shrub	Monochlamydeae
176	<i>Jatropha intergerima</i> , Linn	Euphorbiaceae	Shrub	Monochlamydeae
177	<i>Justicia glauca</i> , Rottl	Acanthaceae	Shrub	Gamopetalae
178	<i>Justicia trancobarensis</i> , Linn	Acanthaceae	Shrub	Gamopetalae
179	<i>Kalanchoe delagoensis</i> , Adans	Crassulaceae	Herb	Polypetalae
180	<i>Kedrostis foetidissima</i> , Med	Cucurbitaceae	Climber	Polypetalae
181	<i>Lablab purpureus</i> , Linn	Fabaceae	Climber	Polypetalae
182	<i>Lagenaria siceraria</i> , Ser	Cucurbitaceae	Climber	Polypetalae
183	<i>Lagerstroemia flos-reginae</i> , Retz	Lythraceae	Tree	Polypetalae
184	<i>Lantana camara</i> , Linn	Verbanaceae	Shrub	Gamopetalae
185	<i>Lawsonia inermis</i> , Linn	Lythraceae	Shrub	Polypetalae
186	<i>Leucas aspera</i> ,Spr	Lamiaceae	Herb	Gamopetalae
187	<i>Lippia nodiflora</i> , Mich	Verbanaceae	Herb	Gamopetalae
188	<i>Luffa acutangula</i> , Roxb	Cucurbitaceae	Climber	Polypetalae
189	<i>Luffa cylindrica</i> , Roxb	Cucurbitaceae	Climber	Polypetalae
190	<i>Lycopersicon esculentum</i> , Mill	Solanaceae	Shrub	Gamopetalae
191	<i>Magnolia champaca</i> , Nutt	Magnoliaceae	Tree	Polypetalae
192	<i>Malva coramandeliana</i> ,Linn	Malvaceae	Shrub	Polypetalae
193	<i>Mangifera indica</i> ,Linn	Anacardiaceae	Tree	Polypetalae
194	<i>Manilkara zapota</i> , M.Arg	Sapotaceae	Tree	Gamopetalae
195	<i>Mannihot esculenta</i> ,M. Arg	Euphorbiaceae	Shrub	Monochlamydeae
196	<i>Marreria tridentata</i> , Roxb	Convolvulaceae	Climber	Gamopetalae
197	<i>Martynia annua</i> , Linn	Pedaliaceae	Shrub	Gamopetalae
198	<i>Megathyrus maximus</i> , Jacq	Poaceae	Herb	Monocot
199	<i>Melia dubia</i> , Hiern	Meliaceae	Tree	Polypetalae
200	<i>Menta piperita</i> , Linn	Lamiaceae	Herb	Gamopetalae
201	<i>Michelia champaca</i> , Linn	Magnoliaceae	Tree	Polypetalae
202	<i>Millingtonia hortensis</i> , Linn. f	Bignoniaceae	Tree	Gamopetalae
203	<i>Mimosa pudica</i> ,Linn	Mimosidae	Shrub	Polypetalae
204	<i>Mimusops elengi</i> ,Linn	Sapotaceae	Tree	Gamopetalae
205	<i>Mirabilis jalapa</i> , Linn	Nyctaginaceae	Herb	Monochlamydeae
206	<i>Mollugo cerviana</i> , Lam	Aizoaceae	Herb	Polypetalae
207	<i>Mollugo nudicaulis</i> , Ser	Aizoaceae	Herb	Polypetalae
208	<i>Momordica charantia</i> ,Linn	Mimosoideae	Climber	Polypetalae
209	<i>Morinda citrifolia</i> , Bedd	Rubiaceae	Tree	Gamopetalae
210	<i>Moringa oleifera</i> , Lam	Moringaceae	Tree	Polypetalae
211	<i>Murdannia nudiflora</i> , Linn	Commelinaceae	Herb	Monocot
212	<i>Murraya exotica</i> , Linn	Rutaceae	Shrub	Polypetalae
213	<i>Murraya koenigii</i> , Linn	Rutaceae	Shrub	Polypetalae
214	<i>Musa paradisiaca</i> , Linn	Musaceae	Tree	Monocot
215	<i>Muntingia calabura</i> , Wall	Muntingiaceae	Shrub	Polypetalae
216	<i>Nelumbo nucifera</i> , Juss	Nymphaeaceae	Herb	Polypetalae
217	<i>Neolamarckia cadamba</i> , Willd	Rubiaceae	Tree	Polypetalae
218	<i>Nerium odorum</i> , Soland	Apocyanaceae	Shrub	Gamopetalae
219	<i>Nicotiana tobaccum</i> , Linn	Solanaceae	Shrub	Gamopetalae
220	<i>Nyctanthes arboristitis</i> , Linn	Oleaceae	Herb	Gamopetalae

221	<i>Nymphaea stellata</i> , Willd	Nymphaeaceae	Herb	Polypetalae
222	<i>Ocimum sanctum</i> , Linn	Lamiaceae	Herb	Gamopetalae
223	<i>Opuntia dellenii</i> , Haw	Cactaceae	Shrub	Polypetalae
224	<i>Origanum majorana</i> , Linn	Lamiaceae	Herb	Gamopetalae
225	<i>Oryza sativa</i> , Linn	Poaceae	Herb	Monocot
226	<i>Oxystelma esculentum</i> , R. Br	Apocyanaceae	Climber	Gamopetalae
227	<i>Panicum capillare</i> , Linn	Poaceae	Herb	Monocot
228	<i>Panicum maximum</i> , Jacq	Poaceae	Herb	Monocot
229	<i>Panicum virgatum</i> , Lamk	Poaceae	Herb	Monocot
230	<i>Parthenium hysterophorus</i> , W & A	Asteraceae	Shrub	Gamopetalae
231	<i>Passiflora foetida</i> , Linn	Passifloraceae	Climber	Polypetalae
232	<i>Pavetta zeylanica</i> , Gamb	Malvaceae	Shrub	Polypetalae
233	<i>Pavonia odorata</i> , Willd	Malvaceae	Shrub	Polypetalae
234	<i>Pavonia zeylanica</i> , Cav.	Malvaceae	Shrub	Polypetalae
235	<i>Pedaliium murex</i> , Linn	Pedaliaceae	Herb	Gamopetalae
236	<i>Pedilanthus tithymaloides</i> , Poit	Euphorbiaceae	Herb	Monochlamydeae
237	<i>Pennisetum glaucum</i> , Rich	Poaceae	Shrub	Monocot
238	<i>Pergularia rostrata</i> , Linn	Asclpidaceae	Climber	Gamopetalae
239	<i>Phyllanthus amarus</i> , Linn	Phyllanthaceae	Herb	Monochlamydeae
240	<i>Phyllanthus emblica</i> , Linn	Euphorbiaceae	Tree	Monochlamydeae
241	<i>Phyllanthus niruri</i> , Linn	Euphorbiaceae	Herb	Monochlamydeae
242	<i>Piloscoerus arrabidaei</i> , Lindl	Cactaceae	Shrub	Polypetalae
243	<i>Piper betel</i> , Linn	Piperaceae	Climber	Monochlamydeae
244	<i>Pithecellobium dulce</i> , Benth	Fabaceae	Tree	Polypetalae
245	<i>Plumeria alba</i> , Linn	Apocyanaceae	Tree	Gamopetalae
246	<i>Plumeria rubra</i> , Linn	Apocyanaceae	Tree	Gamopetalae
247	<i>Polyalthia longifolia</i> , Hk. f	Annonaceae	Tree	Polypetalae
248	<i>Polyanthus tuberosum</i> , Linn	Amaryllidaceae	Herb	Polypetalae
249	<i>Pongamia pinnata</i> , Vent	Fabaceae	Tree	Polypetalae
250	<i>Portulaca oleraceae</i> , Linn	Portulacaceae	Herb	Polypetalae
251	<i>Prosopis juliflora</i> , Linn	Mimosoideae	Tree	Polypetalae
252	<i>Psidium guava</i> , Linn	Myrtaceae	Tree	Polypetalae
253	<i>Psilotrichum elliotii</i> , Bl	Amaranthaceae	Herb	Monochlamydeae
254	<i>Psittia stratiotes</i> , wall	Araceae	Herb	Monocot
255	<i>Punica granatum</i> , Wall	Lyrthaceae	Shrub	Polypetalae
256	<i>Quisqualis indica</i> , Linn	Combretaceae	Climber	Polypetalae
257	<i>Ricinnus communis</i> , Linn	Euphorbiaceae	Shrub	Monochlamydeae
258	<i>Rosa chinensis</i> , Linn	Rosaceae	Shrub	Polypetalae
259	<i>Rosa domestica</i> , Linn	Rosaceae	Shrub	Polypetalae
260	<i>Ruellia brittoniana</i> , Linn	Acanthaceae	Herb	Gamopetalae
261	<i>Ruellia patula</i> , Jacq	Acanthaceae	Herb	Gamopetalae
262	<i>Ruellia tuberosa</i> , Linn	Acanthaceae	Herb	Gamopetalae
263	<i>Saccharum officinarum</i> , Linn	Poaceae	Shrub	Monocot
264	<i>Saccharum ravenne</i> , Linn	Poaceae	Herb	Monocot
265	<i>Saccharum spontaneum</i> , Linn	Poaceae	Shrub	Monocot
266	<i>Saraca asoca</i> , Linn	Leguminosae	Tree	Polypetalae
267	<i>Scadoxus multiflorus</i> , Linn	Amaranthaceae	Herb	Monochlamydeae
268	<i>Secchium edule</i> , Jacq	Cucurbitaceae	Climber	Polypetalae
269	<i>Senna auriculata</i> , Linn	Cesalpiniaceae	Tree	Polypetalae
270	<i>Sesamum alatum</i> , Linn	Pedaliaceae	Herb	Gamopetalae
271	<i>Sesamum indica</i> , Linn	Pedaliaceae	Herb	Polypetalae
272	<i>Sesbania grandiflora</i> , Pers	Fabaceae	Shrub	Polypetalae
273	<i>Sida acuta</i> , Burm	Malvaceae	Shrub	Polypetalae
274	<i>Sida cordifolia</i> , Linn	Malvaceae	Shrub	Polypetalae
275	<i>Solanum trilobatum</i> , Linn	Solanaceae	Climber	Gamopetalae
276	<i>Solanum indicum</i> , Linn	Solanaceae	Shrub	Gamopetalae
277	<i>Solanum melongena</i> , Linn	Solanaceae	Shrub	Gamopetalae
278	<i>Solanum nigrum</i> , Linn	Solanaceae	Herb	Gamopetalae
279	<i>Solanum torvum</i> , Sw	Solanaceae	Shrub	Gamopetalae
280	<i>Solanum virginianum</i> , Heyne	Solanaceae	Herb	Gamopetalae
281	<i>Sorghum bicolor</i> , Moench	Poaceae	Shrub	Monocot
282	<i>Spermacoce hispida</i> , Linn	Rubiaceae	Herb	Gamopetalae
283	<i>Sphaeranthus indicus</i> , Linn	Asteraceae	Herb	Gamopetalae
284	<i>Spinacia oleraceae</i> , Linn	Amaranthaceae	Herb	Monochlamydeae
285	<i>Stenolobium stans</i> , D.Don	Bignoniaceae	Shrub	Gamopetalae
286	<i>Synedrella nodiflora</i> , Gaertn	Asteraceae	Herb	Gamopetalae
287	<i>Syzygium cumini</i> , Walp	Myrtaceae	Tree	Polypetalae
288	<i>Tagetes patula</i> , Hk.f	Asteraceae	Shrub	Gamopetalae
289	<i>Tamarindus indica</i> , Linn	Cesalpiniaceae	Tree	Polypetalae
290	<i>Tectona grandis</i> , Linn	Lamiaceae	Tree	Gamopetalae
291	<i>Telosma cordata</i> , Craib	Asclpidaceae	Climber	Gamopetalae
292	<i>Tephrosia purpurea</i> , Pers	Fabaceae	Shrub	Polypetalae
293	<i>Terminalia catapa</i> , Linn	Combretaceae	Tree	Polypetalae
294	<i>Thespesia populena</i> , Cav	Malvaceae	Tree	Polypetalae
295	<i>Tinospora cordifolia</i> , Miers	Menispermaceae	Climber	Polypetalae
296	<i>Tithonia diversifolia</i> , Roxb	Asteraceae	Shrub	Gamopetalae
297	<i>Trianthema portulacastrum</i> , Linn	Aizoaceae	Herb	Polypetalae
298	<i>Tribulus terrestris</i> , Linn	Zygophyllaceae	Herb	Polypetalae
299	<i>Trichodesma indicum</i> , R. Br	Boraginaceae	Herb	Gamopetalae
300	<i>Trichosanthus cucumerina</i> , Linn	Cucurbitaceae	Climber	Polypetalae
301	<i>Tridax procumbens</i> , Linn	Asteraceae	Herb	Gamopetalae
302	<i>Trigonella foenum-graecum</i> , Linn	Fabaceae	Herb	Polypetalae
303	<i>Urena lobata</i> , Linn	Malvaceae	Herb	Polypetalae
304	<i>Vernonia cinerea</i> , Less	Asteraceae	Herb	Gamopetalae
305	<i>Vitex negundo</i> , Linn	Verbanaceae	Shrub	Gamopetalae
306	<i>Wedelia trilobata</i> , Jacq	Asteraceae	Herb	Gamopetalae
307	<i>Wrightia tinctoria</i> , R. Br	Apocyanaceae	Tree	Gamopetalae
308	<i>Xanthium strumarium</i> , Linn	Asteraceae	Shrub	Gamopetalae
309	<i>Zea mays</i> , Linn	Poaceae	Shrub	Monocot
310	<i>Zizyphus jujuba</i> , Lam	Rhamnaceae	Shrub	Polypetalae

Table 2: Percentage composition of Dicot and Monocot.

S.No		Species (n)	Percentage
1	Dicotyledonae	261	84.1%
2	Monocotyledonae	48	15.4%
	Total	310	99.5%

Table 3: Percentage composition of habits in the study site

S. No	Habit	Species (n)	Percentage
1	Trees	64	20.6%
2	Shrubs	90	29%
3	Herbs	115	37%
4	Climbers	40	12.9%
5	Succulent	1	0.32%
	Total	310	99.82%

Table 4: Percentage composition of Sub - class in the study site

S. No	Class & Subclass	No. of Species	Percentage
1	Polypetalae	127	40.9%
2	Gamopetalae	93	30%
3	Monochlamydeae	41	13.2%
4	Monocotyledonae	48	15.4%
	Total	310	99.5%

Table 5: List of the Top 10 families in the study area

S.No	Family	Genus	Species
1	Leguminosae	25	29
2	Poaceae	15	20
3	Asteraceae	14	13
4	Malvaceae	10	18
5	Amaranthaceae	10	15
6	Acanthaceae	10	13
7	Apocynaceae	9	11
8	Cucurbitaceae	9	11
9	Euphorbiaceae	8	15
10	Lamiaceae	8	8

## Conclusion

The present floristic investigation of Gobichettipalayam Taluk establishes the region as a significant repository of angiospermic diversity within the Western Ghats' transition zone. The survey identifies a heterogeneous botanical composition, ranging from seasonal herbaceous ground cover to structural perennial arborescents. The dominance of species such as *Azadirachta indica* and *Millingtonia hortensis* underscores the stable ecological framework of the local plains, while the high frequency of medicinal flora highlights the ethnobotanical importance of this riverine ecosystem.

Our findings indicate that the biodiversity of this taluk acts as a critical biological corridor that resists fragmentation. However, the documented flora faces increasing pressure from anthropogenic factors, including habitat encroachment and climate-induced shifts. To preserve this genetic reservoir, it is imperative to move beyond isolated protection and adopt landscape-level conservation strategies. This study serves as a baseline for future phytosociological research and emphasizes the urgency of integrating sustainable management practices to ensure the resilience of these natural habitats for future generations.

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