

A Survey of Ornamental Plant Diversity in Parvathiputhoor Village, Kanniyakumari District, Tamil Nadu, India.

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ABSTRACT

Ornamental plants are widely grown around homes and managed spaces for their attractive flowers, foliage and overall appearance, and also form part of local cultural and traditional practices. This study documents the ornamental plants of Parvathiputhoor Village, Thovalai Block, Kanniyakumari District, Tamil Nadu, based on a field survey conducted from January to June 2026 in home gardens, residential areas, institutional premises, roadsides, public spaces and other landscaped sites. Plants were observed, photographed and identified using their morphological and reproductive characters with the aid of standard floras and taxonomic references. The survey recorded 55 ornamental plant species belonging to 27 families. Angiosperms constituted the major component of the recorded plants, while herbs and shrubs were the predominant growth forms. Asparagaceae was the most represented family, with six recorded species (10.91%). Most of the plants were cultivated for decoration and beautification, while some were also maintained for worship and traditional medicinal purposes. The study provides a useful record of the ornamental plants cultivated in Parvathiputhoor Village and highlights the importance of locally managed spaces in documenting cultivated plant diversity.

Keywords: Ornamental plants, plant diversity, home gardens, floristic survey, growth forms, Parvathiputhoor.

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INTRODUCTION

Ornamental plants are an important component of cultivated plant diversity and are primarily grown for their attractive flowers, foliage, colour, fragrance, plant form and aesthetic qualities. They are commonly cultivated around houses, home gardens, institutions, roadsides, religious places and other managed green spaces. Ornamental plant species can differ in their ability to attract insects and pollinators, with floral traits and flowering characteristics influencing pollinator visitation (Park *et al.*, 2026; Palmersheim *et al.*, 2022; Erickson *et al.*, 2022). The cultivation of ornamental plants is closely associated with floriculture and landscape horticulture. In India, floriculture has roots in traditional cultivation practices and has developed into an important horticultural sector involving flower production, ornamental plant cultivation, nursery production, landscaping and marketing (Kumar *et al.*, 2023). Village landscapes may support a mixture of ornamental herbs, shrubs, climbers, palms and trees. Studies in different parts of India have demonstrated that these managed spaces can harbour substantial plant diversity and may serve as localized reservoirs of cultivated plant resources (Das *et al.*, 2020; Bhat and Rajanna 2021). Beyond their aesthetic function, ornamental plants can contribute to ecological processes within managed landscapes. Plant traits such as flower colour, floral morphology, scent and reward structure can influence the visitation and use of flowers by pollinators (Garbuzov and Ratnieks 2014). The incorporation of native ornamental species is increasingly considered relevant to

biodiversity-oriented and sustainable development. India possesses a large diversity of native plant species with horticultural and ornamental potential, offering opportunities for biodiversity conservation and sustainable landscape development (Thakur *et al.*, 2025; Sreelatha *et al.*, 2024). However, ornamental vegetation may also include introduced species, and their ecological effects can vary according to species characteristics and local environmental conditions; therefore, documentation of the actual composition of cultivated plants is an important first step in evaluating village-level ornamental diversity.

Despite the widespread cultivation of ornamental plants, species-level inventories at the individual village scale remain limited. Such inventories are particularly useful for documenting locally maintained plant diversity and for identifying species that may have horticultural, ecological or conservation significance. Therefore, the present study focuses on the systematic documentation of the ornamental plants cultivated within the selected village, providing baseline information for future investigations on rural home gardens, ornamental plant diversity, biodiversity conservation and sustainable landscape management.

MATERIALS AND METHODS

The study was conducted in Parvathiputhoor Village, Thovalai Block, Kanniyakumari District, Tamil Nadu, India, located at approximately 8°14' N latitude and 77°26' E longitude. A systematic field survey of ornamental plants was carried out from January to June 2026 through repeated visits to

home gardens, residential compounds, institutional premises, roadsides, public spaces and other landscaped areas. Ornamental plants were observed, photographed and documented, and information on scientific name, local name, family, habit and purpose of cultivation was recorded. Plant identification was based on morphological and reproductive characters using standard floras and taxonomic literature, including Gamble and Fischer's Flora of the Presidency of Madras (1915–1935) and Nair and Henry (1983), with comparison with authenticated herbarium materials and published taxonomic descriptions. Accepted scientific names, author citations and family assignments were verified using current taxonomic databases.

RESULTS & DISCUSSION:

The present survey recorded 55 ornamental plant species belonging to 27 families from Parvathiputhoor Village. Asparagaceae was the dominant family with six species (10.91%), followed by Apocynaceae, Amaryllidaceae, Asteraceae, Euphorbiaceae and Rubiaceae, with four species each (7.27%). Fabaceae and Nyctaginaceae contributed three species each (5.45%), while Amaranthaceae, Moraceae, Oleaceae and Malvaceae were represented by two species each (3.64%). The remaining 15 families were represented by one species each (1.82%).

Based on growth habit, herbs and shrubs were dominant, with 21 species each (38.18%), followed by climbers (7 species; 12.73%) and trees (6 species; 10.91%). The predominance of herbs and shrubs may be related to their suitability for household gardens and small landscaped spaces. A different growth-form pattern was reported by Anjaneyulu *et al.*, (2021) in Andhra Pradesh, where trees and herbs were the major components of the recorded wild ornamental angiosperms. In Kanyakumari District, Rejitha and Uma Devi (2021) recorded 29 ornamental species belonging to 19 genera, with shrubs forming the major growth category. These differences may reflect variation in habitat, cultivation practices and local ornamental preferences.

Table 1: Checklist of Ornamental plant species recorded from Parvathiputhoor Village

Sl. No.	Botanical Name / Family Name	Local Name	Habit	Purpose
1.	<i>Acalypha hispida</i> Burm.f. / Euphorbiaceae	Chennaika thiri	Shrub	Aesthetic
2.	<i>Allamanda cathartica</i>	Manjal patti	Climber	Aesthetic

	L. / Apocynaceae			
3.	<i>Antigonon leptopus</i> Hook.f. & Arn. / Polygonaceae	Kodi roja	Climber	Aesthetic
4.	<i>Areca catechu</i> L. / Areaceae	Paakku	Tree	Medicine
5.	<i>Bougainvillea glabra</i> Choisy. / Nyctaginaceae	Thaal poo	Climber	Aesthetic
6.	<i>Bougainvillea peruviana</i> Bonpl. / Nyctaginaceae	Thaal poo	Climber	Aesthetic
7.	<i>Calliandra haematocephala</i> Hassk. / Fabaceae	Sempanju poo	Shrub	Aesthetic
8.	<i>Canna indica</i> L. / Cannaceae	Kal vaazhai	Herb	Aesthetic
9.	<i>Cassia fistula</i> L. / Fabaceae	Konrai	Tree	Worship
10.	<i>Catharanthus roseus</i> (L.) G.Don. / Apocynaceae	Nithyakal yani	Herb	Aesthetic
11.	<i>Celosia argentea</i> L. / Amaranthaceae	Kozhikon dai	Herb	Worship
12.	<i>Cestrum diurnum</i> L. / Solanaceae	Pagal Malligai	Shrub	Aesthetic
13.	<i>Chlorophytum comosum</i> (Thunb.) Jacques /	Spider chedi	Herb	Aesthetic

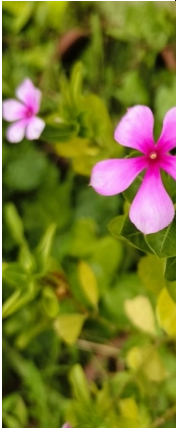
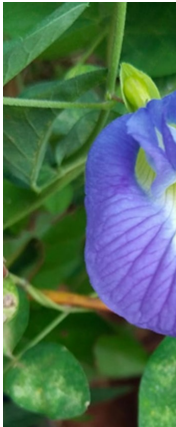
	Asparagaceae			
14.	<i>Clerodendrum thomsoniae</i> Balf.f. / Lamiaceae	Kadalapoo	Climber	Aesthetic
15.	<i>Clitoria ternatea</i> L. / Fabaceae	Sangu Poo	Climber	Worship
16.	<i>Codiaeum variegatum</i> (L.) Rumph. ex A.Juss. / Euphorbiaceae	Croton	Shrub	Aesthetic
17.	<i>Cordyline fruticosa</i> (L.) A.Chev. / Asparagaceae	Nila Adai Maram	Shrub	Aesthetic
18.	<i>Cosmos sulphureus</i> Cav. / Asteraceae	samanthi	Herb	Aesthetic
19.	<i>Crinum × powellii</i> hort. ex Baker. / Amaryllidaceae	Visha moongil	Herb	Aesthetic
20.	<i>Crossandra infundibuliformis</i> (L.) Nees / Acanthaceae	Kanakambaram	Shrub	Aesthetic
21.	<i>Cycas revoluta</i> Thunb. / Cycadaceae	Cycas	Shrub	Aesthetic
22.	<i>Dianthus chinensis</i> L. / Caryophyllaceae	Cheena Roja	Herb	Aesthetic
23.	<i>Dracaena reflexa</i> Lam. / Asparagaceae	Draceena	Shrub	Aesthetic

24.	<i>Dracaena sanderiana</i> Sander ex Mast. / Asparagaceae	Lucky Bamboo	Herb	Aesthetic
25.	<i>Dracaena trifasciata</i> (Prain) Mabb. / Asparagaceae	Paambu Chedi	Herb	Aesthetic
26.	<i>Duranta erecta</i> L. / Verbenaceae	Duranta	Shrub	Aesthetic
27.	<i>Epipremnum aureum</i> (Linden & André) G.S.Bunting / Araceae	Money Plant	Climber	Aesthetic
28.	<i>Euphorbia milii</i> Des Moul / Euphorbiaceae	Mullu Kreedam	Shrub	Aesthetic
29.	<i>Euphorbia pulcherrima</i> Willd. ex Klotzsch. / Euphorbiaceae	Christmas Poo	Shrub	Aesthetic
30.	<i>Ficus benjamina</i> L. / Moraceae	Malai Ichi	Tree	Aesthetic
31.	<i>Ficus elastica</i> Roxb. ex Hornem. / Moraceae	Rubber Chedi	Tree	Aesthetic
32.	<i>Gardenia jasminoides</i> J.Ellis / Rubiaceae	Gundu Malli	Shrub	Worship
33.	<i>Gomphrena globosa</i> L. / Amaranthaceae	Vadamalli	Herb	Worship

34.	<i>Hamelia patens</i> Jacq. / Rubiaceae	Pattasu Chedi/ Thi Puthar	Shrub	Aesthetic
35.	<i>Hibiscus rosa-sinensis</i> L. / Malvaceae	Sembaruthi	Shrub	Worship
36.	<i>Hymenocallis caribaea</i> (L.) Herb. / Amaryllidaceae	Spider Lily	Herb	Aesthetic
37.	<i>Ixora coccinea</i> L. / Rubiaceae	Idli Poo	Shrub	Aesthetic
38.	<i>Jasminum auriculatum</i> Vahl / Oleaceae	Jaathi Malli	Shrub	Worship
39.	<i>Jasminum sambac</i> (L.) Aiton. / Oleaceae	Malligai	Shrub	Worship
40.	<i>Leucon bleo</i> (Kunth) Lode. / Cactaceae	Mullu Chedi	Shrub	Aesthetic
41.	<i>Mirabilis jalapa</i> L. / Nyctaginaceae	Andhi Mandharai	Herb	Aesthetic
42.	<i>Mussaenda philippica</i> A.Rich. / Rubiaceae	Mussaenda	Shrub	Aesthetic
43.	<i>Plumeria rubra</i> L. / Apocynaceae	Panneer Poo	Tree	Worship
44.	<i>Polianthes tuberosa</i> L. / Asparagaceae	Samanthi Malli	Herb	Worship
45.	<i>Rosa chinensis</i> Jacq. / Rosaceae	Roja	Shrub	Aesthetic
46.	<i>Russelia equisetiformis</i> Schltdl. &	Pattasu poo	Herb	Aesthetic

	Cham. / Plantaginaceae			
47.	<i>Spathoglottis plicata</i> Blume / Orchidaceae	Orchid	Herb	Aesthetic
48.	<i>Sphagnetola trilobata</i> (L.) Pruski. / Asteraceae	Manjal Poondhu	Herb	Aesthetic
49.	<i>Tabernaemontana divaricata</i> (L.) R.Br. ex Roem. & Schult. / Apocynaceae	Nandiyavattai	Shrub	Worship
50.	<i>Tagetes erecta</i> L. / Asteraceae	Saamanthi	Herb	Worship
51.	<i>Tecomastans</i> (L.) Juss. ex Kunth. / Bignoniaceae	Manjal arali	Shrub	Décor
52.	<i>Thespesia populnea</i> (L.) Sol. ex Correa. / Malvaceae	Poovarasu	Tree	Aesthetic
53.	<i>Zephyranthes candida</i> Herb. / Amaryllidaceae	Vellai Mazhai Lily	Herb	Aesthetic
54.	<i>Zephyranthes rosea</i> Lindl. / Amaryllidaceae	Sivappu Mazhai Lily	Herb	Aesthetic
55.	<i>Zinnia elegans</i> Jacq. / Asteraceae	Zinnia	Herb	Aesthetic

Figure 1. Photographic Documentation of Selected Ornamental Plants Recorded from Parvathiputhoor Village

		
<i>Ixora coccinea</i> L.	<i>Russelia equisetiformis</i> Schlttdl. & Cham.	<i>Thespesia populnea</i> (L.) Sol. ex Corrêa
		
<i>Catharanthus roseus</i> (L.) G. Don	<i>Allamanda cathartica</i> L.	<i>Hibiscus rosa-sinensis</i> L.
		
<i>Dianthus chinensis</i> L.	<i>Clitoria ternatea</i> L.	<i>Sphagneticola trilobata</i> (L.) Pruski

The recorded flora was predominantly angiospermous, comprising 54 species (98.18%), while one gymnosperm, *Cycas revoluta* (1.82%), was recorded; no pteridophytes were observed. Similarly, Jasline et al., (2022) reported 39 ornamental species from the Karungal region of Kanyakumari District, all belonging to angiosperms. The present study recorded a higher number of species and families than the Karungal survey, indicating greater ornamental plant diversity in the present study area.

Natchathiram et al, (2023) documented 42 ornamental species belonging to 22 families and 39 genera from Panagudi Panchayat, with shrubs (45%) and herbs (43%) as the dominant growth forms. The present study similarly showed a strong representation of herbs and shrubs. Rathod et al., (2026) recorded 125 ornamental plant species belonging to 58 families in the Marathwada region of Maharashtra, with shrubs (41) species and herb (36) species forming the major growth categories, followed by trees (32) species and climber (16) species. The predominance of shrubs and herb in that study is broadly comparable with the present findings, although the overall species and family richness was considerably higher, possibly reflecting the larger geographical coverage of the Marathwada survey.

Overall, Parvathiputhoor Village supports a diverse cultivated ornamental flora, dominated by angiosperms, particularly herbs and shrubs. Differences from nearby studies highlight the influence of local environmental conditions, available space, household preferences and cultivation practices on ornamental plant composition.

Conclusion

The present study documented 55 ornamental plant species belonging to 27 families in Parvathiputhoor Village. Ornamental plants form an important part of the vegetation maintained around home gardens, residential areas, institutions and other managed spaces. Their cultivation reflects the interest of local people in maintaining attractive and useful plants in their surroundings. The survey provides useful baseline information on the ornamental flora of the village and contributes to the documentation of locally cultivated plant diversity. Regular documentation and similar surveys in other villages of Kanyakumari District would help to improve the understanding of local ornamental plant diversity and provide valuable records for future studies on cultivated plant resources and sustainable landscape management.

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