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Ornamental Potential of Selected Araceae Members: A Special Reference to Aesthetic Perception

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Abstract

Araceae is an important plant family widely valued for its ornamental attributes, especially in tropical and subtropical regions. The present study documents and evaluates the ornamental potential of selected Araceae members from the study area, with emphasis on their suitability for horticulture and interiorscaping. A total of 16 species representing seven genera were recorded and assessed based on their diversity, growth forms, aesthetic characteristics, and adaptability. *Alocasia* was the dominant genus with four species, followed by *Aglaonema* and *Caladium* with three species each. *Philodendron* and *Syngonium* were represented by two species each, while *Colocasia* and *Homalomena* had single species. Most taxa are cultivated for their distinctive growth habits, attractive foliage, and decorative value and are predominantly exotic with wide distribution in tropical and subtropical regions. Araceae members show strong potential for indoor cultivation due to their ornamental foliage, unique inflorescences, and adaptability to varied indoor environments. The present study also highlights the role of Araceae in sustainable urban horticulture and their contribution to enhancing aesthetic and ecological value in modern living spaces.

1. Introduction

The Araceae is a monocotyledonous family belonging to the order Arales or Spathiflorae. It contains about 105 genera and nearly 1000 species, most of them widelydistributed in the humid tropics. They are primarily herbaceous and terrestrial in habit, although many may be scandent or epiphytic (Timothy, 1969). The family Araceae comprises 105 genera and approximately 3000species of herbaceous monocotyledons; these are predominantly tropical in distribution, with 90 per cent of genera and about 95 percent of species restricted to the tropics. The family contains severalwell-known cultivated foliage and flowering plants (Peter,1995).

The shape of the leaf blade varies widely, ranging from linear, elliptical, ovate, cordate, pinnately lobed, pinnated and dracontioid (Lóz, 2022). The inflorescence typically consist of a bract (spathe), with numerous small flowers known as a spadix, usually erect and terminal, sometimes pendulous. (Mayo *et al*., 1997). Additionally, certain species are cultivated for ornamental purposes, including *Alocasia* (Schott) G.Don), *Anthurium* (Schott), *Dieffenbachia*, *Spathiphyllum* Schot, *Caladium* Vent. (known as "tinhorão") (Souza, 2019). The taxa like *Colocasia esculenta* var. (L.) Schott (yam), and *Xanthosoma sagittifolium* Schott (known as "taioba") are some of the representatives food plantas (Assis & Sakuragui, 2005).

Ornamental aroids, encompassing a diverse array of plants within the araceae family, are cherished for their captivating foliage and unique floral structures. These plants display an extensive range of leaf shapes, colors and textures adding an exotic and architectural appeal to indoor and outdoor spaces alike. Along with the aesthetic beauty they are renowned for their air-purifying properties (Das *et al.,* 2014).

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2. Materials and Methods

2.1. Study area: Kozhikode District, Kerala

The Calicut is well known as the historical spot where Vasco da Gamma, the Portugese explorer, landed in search of bio-resources of India. Currently it is known as Kozhikode. It is notable for its rich biodiversity at all levels from habitats andspecies. It offers almost all types of habitats available in Southern India, from coast, sandy plains, brackish water system, mangroves, rivers, midland scrubs to the misty forests of high altitudes of the Western Ghats. Located between latitudes 11°08' & 11°50' North and longitudes 75°30' & 76°08' East, the Calicut district is in the Northern part of Kerala state of India. It bordered by Kannur District on the North, Wayanad District on the East, Malappuram District on the south andmore than 80 km stretch of Arabian sea on the west (Rajesh & Manju, 2014).

2.2. Documentation of ornamental Araceae members

The present study was based on an extensive survey and field observations during the period July 2025 to November 2025. The present observation mainly focused on documenting ornamental Araceae plants from the selected study area. The collected plant specimens were identified taxonomically with the help of available floras and literature. The nomenclature of each species has been brought up to data as per the rules given in the International Code of Nomenclature (ICN). The collected specimens were conserved through *ex-situ* way in the Botanical Garden of Department of Botany, St. Joseph's College, Calicut for future reference.

3. Results and Discussion

This study highlights the ornamental potential of 16 Araceae members from the study area were distributed in 7 genera. These includes *Aglaonema, Alocasia, Caladium, Colocasia, Homalomena, Philodendron* and *Syngonium.* Out of these 7 genera represented *Alocasia* was the dominant genus with 4 species followed by *Aglaonema* and *Caladium* with 3 species respectively. The genera like *Philodendron* and *Syngonium* possess 2 species respectively. While the genera like *Colocasia* and *Homalomena* with only single species correspondingly. These are manly cultivated for their aesthetic appeal for their unique growth forms and decorative value. The origin and distribution of these taxa also indicates that, they are exotic and also distributed in various tropical and sub tropical regions of the world (Table-1). With increasing urbanization and limited green spaces, the demand for indoor plants has significantly risen, making interiorscaping an essential part of modern living environments. The present study also highlights that, many of the documented plants are used as indoor plants because of their remarkable foliage, unique inflorescences, and adaptability to varied indoor conditions.

Studies on Seliomar *et al* (2025) reveled that, Araceae Juss. is widely used by the local population for various purposes, including food, mysticism and crafts. The aim of their study was to conduct a survey of Araceae species used in neighbor hoods in Floriano, Piauí, and to classify these species based on their origin and habit. There are about nineteen species belonging to thirteen genera were documented, categorized into two main uses: ornamental and mystical. Species such as *Aglaonema commutatum Schott*, *Dieffenbachia seguine Schott*, *Epipremnum aureum* (Linden & André) G.S. Bunting and *Zamioculca zamiifolia* (Lodd.) Engl. exhibited the highest use value (0.016 each). These species are predominantly cultivated and are of exotic origin, with varying habits including climbing, epiphytic, hemiepiphytic and herbaceous. According to Adarsh & Anand, (2025). Ornamental aroids from the Araceae family have emerged as essential components of interiorscaping due to their decorative foliage, structural diversity and adaptability to indoor

environments. Their ability to thrive in low light, along with their air-purifying qualities, makes them ideal for urban living spaces, offices and commercial interiors. The genera such as *Aglaonema*, *Alocasia*, *Anthurium*, *Philodendron* and *Monstera* not only enhance visual appeal but also promote a healthier indoor atmosphere. With increasing interest in indoor gardening and sustainable design the horticultural and commercial value of aroids are highly remarkable.

Table-1: List of ornamental plants with respective of their distributional status

SL. No.	Botanical Name	Ornamental potential	Nativity and distribution of the Plant
1	***Aglaonema commutatum***	Attractive habit with striped leaves.	Philippines, Sulawesi
2.	***Aglaonema costatum***	Attractive spotted leaves.	Bangladesh, Cambodia, Laos, Malaya, Thailand, Vietnam
3.	***Aglaonema pictum***	Good looking habit with striped leaves, Also used as indoor plant.	Sumatera
4.	***Alocasia cucullata***	Beautiful deeply cordate leaves, Also used as indoor plant.	Assam, Bangladesh, China South-Central, China Southeast, East Himalaya, Hainan, Laos, Myanmar, Sri Lanka, Taiwan, Thailand, Vietnam, West Himalaya
5.	***Alocasia macrorrhizos***	Wavy leaves with prominent ribs in an abaxial surface of leaves becomes attractive.	Bismarck Archipelago, Borneo, Maluku, New Guinea, Philippines, Queensland, Sulawesi
6.	***Alocasia micholitziana***	White lined green leaves are beautiful, Also used as indoor plant.	Philippines
7.	***Alocasia sarawakensis***	Blackish shiny leaves and petiole are more beautiful.	Borneo
8.	***Caladium bicolor***	Variegated leaves with attractive shades are considered its ornamental potential.	Argentina Northwest, Bolivia, Brazil North, Brazil Northeast, Brazil South, Brazil Southeast, Brazil West-Central, Colombia, Costa Rica, Ecuador, French Guiana, Guyana, Honduras, Nicaragua, Panamá, Peru, Suriname, Venezuela
9.	***Caladium humboldtii***	Good looking habit with spotted small leaves is attractive, Also used as indoor plant.	Brazil North, Venezuela
10.	***Caladium schomburgkii***	Prominent white veined	Brazil North, French Guiana,

		green leaves are gorgeous. Also used as indoor plant.	Guyana, Suriname, Venezuela
11.	***Colocasia affinis***	An attractive spotted leaves are gorgeous.	Assam, Bangladesh, China South-Central, East Himalaya, India, Myanmar, Nepal
12.	***Homalomena pendula***	Striking incurved veins on leaves are beautiful.	Assam, Bangladesh, Borneo, East Himalaya, India, Jawa, Lesser Sunda Is., Myanmar, Sumatera, Thailand, Vietnam
13.	***Philodendron imbe***	Shining green leaves are pretty. Also used as indoor plant.	Brazil
14.	***Philodendron xanadu***	Good looking habit with attractive dissected leaves. Also used as indoor plant.	Brazil South, Paraguay
15.	***Syngonium podophyllum***	Light green variegated cordate leaves are beautiful. Also used as indoor plant.	Belize, Bolivia, Brazil North, Brazil Northeast, Brazil Southeast, Brazil West-Central, Colombia, Costa Rica, Ecuador, El Salvador, French Guiana, Guatemala, Guyana, Honduras, Mexico Central, Mexico Gulf, Mexico Northeast, Mexico Southeast, Mexico Southwest, Nicaragua, Panamá, Peru, Suriname, Trinidad-Tobago, Venezuela, Venezuelan Antilles
16.	***Syngonium wendlandii***	Attractive white stripped green tiny leaves are stunning.	Costa Rica

PLATE -1

Fig.1.*Aglaonema commutatum*

Fig.2. *Aglaonema costatum*

Fig. 3. *Aglaonema pictum*

Fig.4. *Alocasia cucullata*

Fig.5. *Alocasia macrorrhiza*

Fig.6. *Alocasia micholitziana*

Fig.7. *Alocasia sarawakensis*

Fig.8.*Caladium bicolor*

PLATE-2

Fig.1. *Caladium humboldtii*

Fig.2.*Caladium schomburgkii*

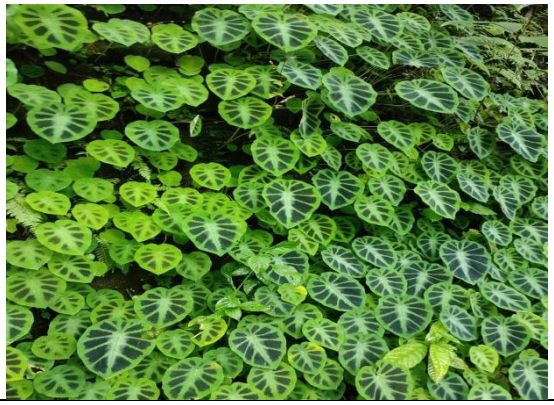

Fig. 3. *Colocasia affinis*

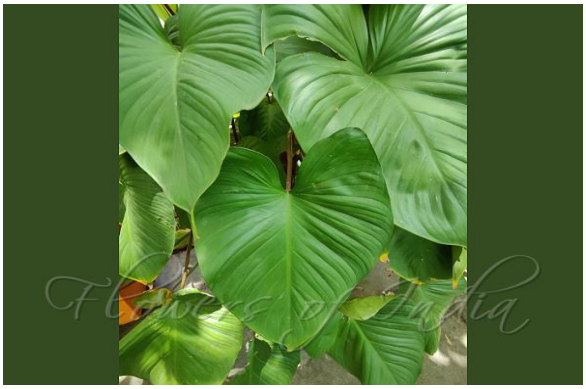

Fig.4. *Homolemna pendula*

Fig.5. *Philodendron imbe*

Fig.6. *Philodendron xanadu*

Fig.7. *Syngonium podophyllum*

Fig.8.*Syngonium wendlandii*

4. Conclusion

The present study highlights the ornamental significance of 16 Araceae

species belonging to seven genera from the study area, demonstrating their potential in horticulture and interiorscaping. *Alocasia* was the dominant genus with four species, followed by *Aglaonema* and *Caladium* (three species each), while *Philodendron* and *Syngonium* were represented by two species each; *Colocasia* and *Homalomena* had single species. These taxa are mainly cultivated for their distinctive growth forms, attractive foliage and decorative value. Most species are exotic in origin and widely distributed across tropical and subtropical regions. The documented Araceae members are particularly suited for indoor cultivation due to their ornamental foliage, unique inflorescences, and adaptability to varied indoor conditions, highlighting their role in sustainable urban horticulture.

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