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A Review on Plant Family: ARACEAE

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Abstract: A plant family is just an accumulation of plants that share characteristics gathered together. Plants can be sorted by similar features, including overall appearance, seed groupings, bloom shape, and more, to demonstrate their relationship to each other. This article comprises of study of family Araceae.

Keywords: Family, features, appearance, bloom

I. INTRODUCTION

The Araceae are group of monocotyledonous blooming plants in which blooms are borne on a kind of inflorescence called a spadix. The spadix is normally joined by, and in some cases mostly encased in, a spathe or leaf-like bract. It is also known as arum family, members are frequently informally known as aroids. This family of 125 genera and about 3800 known species is most diverse in the New World tropics, although also distributed in the Old World tropics and northern temperate regions.¹

A. Scientific Classification

Kingdom	:	Plantae	:	Plants
Subkingdom	:	Tracheobionta	:	Vascular Plants
Superdivision	:	Spermatophyta	:	Seed Plants
Division	:	Magnoliophyta	:	Flowering Plants
Class	:	Liliopsida	:	Monocotyledons
Subclass	:	Arecidae	:	
Order	:	Arales	:	
Family	:	Araceae	:	Arum Family ^{2,3}

B. Description

Species in this family are cormous or rhizomatous or tuberous herbs; root climbers in damp forests, usually with calcium oxalate crystals or raphides and commonly with milky or watery sap (latex). The leaves can change impressively from species to species. The leaves are exchange, simple or compound, petiolate, once in a while extremely extensive, and generally with a sheathing base. Leaves are often somewhat fleshy; commonly partially enveloped by a bract or spathe which is sometimes petaloid or brightly colored.

The flowers are small, actinomorphic, bisexual or unisexual, and are sessile or sometimes embedded in the floral axis. Flowers are often smelly, exhibiting a fly-pollination syndrome. The perianth is almost constantly missing in unisexual blossoms yet in cross-sexual blooms regularly comprises of 4-6 little, undifferentiated tepals that are free or connate. The androecium of a normal male blossom as a rule comprises of 2, 4, or 8 unmistakable or differently connate stamens that are inverse the tepals when these are available.

The gynoecium of an ordinary female blossom comprises of a solitary compound pistil of generally 3 however up to 15 carpels, a solitary style, and a prevalent ovary with sometimes one locule and 1-numerous parietal ovules or more frequently 3 or more locules, each with 1-numerous axile-apical to axile-basal ovules. Fruits are fleshy or non fleshy; indehiscent or dehiscent and or a berry, or a drupe, or a nut. Seeds are albuminous, embedded in mucilaginous pulp or exalbuminous.⁴⁻⁹

C. Distribution

It is found in Sub-tropical, tropical and temperate (relatively few) places. It has great diversity in the tropics, especially the New World. It is also native to India. About 29 genera and 152 species have been reported from India. Aglaonema, Alocasia, Amorphophallus, Anaphyllum, Ariopsis, Arisaema, Arum, Colocasia, Cryptocoryne, Homalomena, Lagenandra, Lasia, Pistia, Pothos, Remusatia, Rhapsidophora, Sauromatum, Scindapsus, Stuednera, Theriophonum, Typhonium etc. are the genera found in India.⁸⁻¹⁰

D. Toxicity

Within the Araceae, genera such as *Alocasia*, *Arisaema*, *Caladium*, *Colocasia* and *Philodendron* contain calcium oxalate crystals in the form of raphides. Whenever consumed, these may cause edema, vesicle formation, and dysphagia joined by excruciating stinging and consuming to the mouth and throat, with side effects happening for as long as about fourteen days after ingestion.¹¹

E. Economic Uses

The family furnishes numerous horticultural ornamentals, especially for indoors like *Pothos aureus* (Money plant), *Monstera deliciosa*, *Alocasia indica* Var. *metallica*, *Caladium picturatum*, *C. bicolor*, *Colocasia esculenta*, *Scindapsus officinalis*, *Anthurium* and *Pistia* spp. . Different plants of this family are cultivated for vegetables, for example, *Colocasia esculenta* (Arvi, Kachalu or Colocasia); *Alocasia indica* (Mankand), *Amorphophallus campanulatus* (Zimikand or elephant foot). Leaves of *Lasia spinosa* and *Sauromatum venosum* are eaten as food. The large fruits of *Monstera* are eaten in many tropical regions. From the tubers of *Colocasia esculenta*, the starchy baby foods and liquor (alcohol) are also prepared. The rhizomes of *Acorus calamus* are used in diarrhoea and dyspepsia. The stem juice of *Alocasia macrorrhiza* is utilized to alleviate torment in scorpion bite. The corns of *Amorphophallus campanulatus* are used in treating piles and dysentery. *Sauromatum guttaum* tubers are used as a stimulating poultice. Some species are of medicinal use or are used as arrow poisons.¹²⁻¹⁵

Various plants are there which belongs to Araceae family. List of plants belonging to family Araceae in India with their synonyms and distribution according to Botanical Survey of India, Ministry of Environment and Forest & Climate Change, Government of India are given below:

Table No. 1. : List of plants belonging to family Araceae in India with their synonyms and distribution according to Botanical Survey of India, Ministry of Environment and Forest & Climate Change, Government of India

Genus	Plant	Synonyms	Distribution
Acorus	<i>Acorus calamus</i>	-	Throughout India
	<i>Acorus gramineus</i>	-	E. Himalaya, N.E. India.
Aglaonema	<i>Aglaonema birmanicum</i>	-	N.E. India.
	<i>Aglaonema commutatum</i>	-	E. India.
	<i>Aglaonema hookerianum</i>	<i>Aglaonema clarkei</i>	N.E. India.
	<i>Aglaonema nicobaricum</i>	-	Andaman & Nicobar Islands.
	<i>Aglaonema simplex</i>	-	Andaman & Nicobar Islands.
Alocasia	<i>Alocasia acuminata</i>	-	N.E. India.
	<i>Alocasia cucullata</i>	<i>Arum cucullatum</i>	E. & N.E. India.
	<i>Alocasia decipiens</i>	<i>Arum fornicatum</i>	Andaman & Nicobar Islands.
	<i>Alocasia fallax</i>	-	E. Himalaya, E. & N.E. India.
	<i>Alocasia fornicata</i>	<i>Arum fornicatum</i>	E. & N.E. India.
	<i>Alocasia macrorrhiza</i>	<i>Arum macrorrhizon</i>	Tropical & Subtropical India.
		<i>Alocasia indica</i>	
	<i>Alocasia montana</i>	<i>Arum montanum</i>	E. India.
	<i>Alocasia navicularis</i>	<i>Colocasia navicularis</i>	E. & N.E. India.
	<i>Alocasia odora</i>	<i>Arum odorum</i>	N.E. India.
Amorphophallus	<i>Amorphophallus blumei</i>	<i>Amorphophallusoncophyllus</i>	Andaman & Nicobar Islands.
	<i>Amorphophallus bulbifer</i>	<i>Arum bulbiferum</i>	E. & N.E. India.
		<i>Conophallus tuberculiger</i>	
		<i>Amorphophallus tuberculiger</i>	
<i>Amorphophallus carnosus</i>	-	Andaman & Nicobar	

	Amorphophallus commutatus	Conophallus commutatus	Islands. Peninsular India.
	Amorphophallus dubius	-	S. & E. India.
	Amorphophallus hohenackeri	Raphidophyllus hohenackeri	S. India.
	Amorphophallus longistylus	-	Andaman & Nicobar Islands.
	Amorphophallus mysorensis	-	S. India.
	Amorphophallus paeoniifolius	Dracontium paeoniifolium	S.& E. India.
		Amorphophallus campanulatus	
		Amorphophallus campanulatus	
		Arum campanulatum	
	Amorphophallus paeoniifolius	Amorphophallus campanulatus	S.& E. India.
		Amorphophallus campanulatus	
	Amorphophallus sylvaticus	Arum sylvaticum	Peninsular & E. India.
		Synantherias sylvatica	
Anaphyllum	Anaphyllum beddomei	-	S. India.
	Anaphyllum wightii	-	S. India.
Ariopsis	Ariopsis peltata	Remusatia vivipara sensu	Peninsular & N.E India, Subtropical Himalaya.
Arisaema	Arisaema album	-	N.E. India.
	Arisaema amurense	-	E. Himalaya.
	Arisaema attenuatum	-	S. India.
	Arisaema auriculatum	-	S. India.
	Arisaema barnesii	-	S. India.
	Arisaema caudatum	Arisaema longicaudatum	Peninsular India.
	Arisaema concinnum	Arisaema concinnum	Temperate Himalaya.
	Arisaema consanguineum	-	Himalaya, N.E. India.
	Arisaema costatum	Arum costatum	Himalaya.
	Arisaema cuspidatum	Arum cuspidatum	N.E. India; Bhutan.
		Arisaema roxburghii	
	Arisaema decipiens	-	E. Himalaya, N.E. India.
	Arisaema echinatum	Arum echinata	Temperate C. to E. Himalaya.
	Arisaema erubescens	Arum erubescens	Temperate C. to E. Himalaya.
	Arisaema exappendiculatum	-	Nepal.
	Arisaema exile	-	Temperate C. to E. Himalaya.
	Arisaema flavum	Arum flavum	Temperate Himalaya.
Arisaema fraternum	-	N.E. India.	
Arisaema galeatum	-	E. India, E. Himalaya.	

Arisaema griffithii	Arisaema verrucosum	Temperate C. to E. Himalaya, N.E. India.
	Arisaema pradhanii	
Arisaema intermedium	Arisaema biflagellatum	Temperate Himalaya.
Arisaema jacquemontii	-	Temperate Himalaya, N.E. India.
Arisaema kunstleri	-	N. to E. India.
Arisaema leschenaultii	Arisaema pulchrum	Peninsular India, N.W. Himalaya.
	Arisaema erubescenssensu	
Arisaema murrayi	Arum murrayi	Peninsular India.
Arisaema nepenthoides	Arum nepenthoides	Temperate C. to E. Himalaya, N.E. India.
Arisaema ochraceum	-	Temperate E. Himalaya.
Arisaema ostiolatum	-	C. to E. Himalaya.
Arisaema peltatum	-	S. India.
Arisaema petiolulatum	Arisaema listeri	E. Himalaya, N.E. India.
Arisaema propinquum	Arisaema sikkimensis	Temperate Himalaya.
	Arisaema wallichianum	
	Arisaema costatumsensu	
Arisaema psittacus	-	S. India.
Arisaema rhizomatum	-	E. Himalaya, N.E. India.
Arisaema sarracaenioides	-	S. India.
Arisaema setosum	-	E. Himalaya.
Arisaema speciosum	Arum speciosum	Temperate Himalaya.
	Arisaema eminens	
	Ariseama mirabile	
Arisaema tortuosum	Arum tortuosum	Peninsular, Himalaya, Tamil Nadu
	Arisaema helleborifolium	
	Arisaema neglectum	
	Arum curvatum	
	Arisaema curvatum	
	Arisaema Steudelii	
Arisaema tortuosumsensu		
Arisaema translucens	-	Tamil Nadu (Nilgiris).
Arisaema tuberculatum	Arisaema convolutum	Tamil Nadu (Nilgiris).
Arisaema tylophorum	Arisaema wightii	Tamil Nadu (Nilgiris).
Arisaema utile	-	Himalaya.
Arisaema vexillatum	-	Nepal.

	<i>Arisaema wattii</i>	-	E. Himalaya, N.E. India.
	<i>Arisaema wightii</i>	-	S. India.
Arum	<i>Arum jacquemontii</i>		N.W. Himalaya.
Caladium	<i>Caladium bicolor</i>	<i>Arum bicolor</i>	Naturalised in S. India.
Colocasia	<i>Colocasia affinis</i>	-	E. to C. Himalaya, N.E. India.
	<i>Colocasia esculenta</i>	<i>Arum esculentum</i>	Throughout India.
		<i>Colocasia antiquorum</i>	
		<i>Colocasia antiquorum</i>	
		<i>Colocasia nymphaeifolium</i>	
	<i>Colocasia fallax</i>	-	E. to C. Himalaya, N.E. India.
	<i>Colocasia mannii</i>	-	N.E. India, Andaman & Nicobar Islands.
<i>Colocasia virosa</i>	<i>Calla virosa</i>	S. & E. India.	
Cryptocoryne	<i>Cryptocoryne ciliata</i>	<i>Ambrosia ciliata</i>	Peninsular & E. India, Andaman & Nicobar Islands.
	<i>Cryptocoryne cognata</i>	-	Peninsular India.
	<i>Cryptocoryne cognatoides</i>	-	S. India.
	<i>Cryptocoryne consobrina</i>	-	Peninsular India.
	<i>Cryptocoryne gomezii</i>	-	E. India.
	<i>Cryptocoryne meeboldii</i>	<i>Lagenandra meeboldii</i>	Peninsular India.
	<i>Cryptocoryne retrospiralis</i>	<i>Ambrosinia retrospiralis</i>	Tropical India.
		<i>Cryptocoryne dalzellii</i>	
		<i>Cryptocoryne unilocularis</i>	
		<i>Cryptocoryne roxburghii</i>	
	<i>Cryptocoryne spiralis</i>	<i>Arum spirale</i>	Peninsular & E. India.
<i>Cryptocoryne huegelii</i>			
<i>Cryptocoryne tortuosa</i>			
<i>Cryptocoryne wightii</i>	-	S. India.	
Epipremnum	<i>Epipremnum meeboldii</i>	-	N.E. India.
	<i>Epipremnum pinnatum</i>	<i>Pothos pinnata</i>	Andaman & Nicobar Islands.
<i>Epipremnum mirabile</i>			
Gonatanthus	<i>Gonatanthus ornatus</i>	-	E. Himalaya, N.E. India.
	<i>Gonatanthus pumilus</i>	<i>Caladium pumilum</i>	Temperate Himalaya, N.E. India.
<i>Gonatanthus sarmentosus</i>			
Homalomena	<i>Homalomena aromatica</i>	<i>Calla aromatica</i>	N.E. India.
	<i>Homalomena cordata</i>	-	Andaman & Nicobar Islands.

	<i>Homalomena griffithii</i>	<i>Chamaecladon ovariantum</i>	Andaman & Nicobar Islands.
	<i>Homalomena nutans</i>	-	Andaman & Nicobar Islands.
	<i>Homalomena obliquata</i>	<i>Chamaecladon obliquatum</i>	Andaman & Nicobar Islands.
	<i>Homalomena pendula</i>	<i>Caladium pendulum</i>	E. Himalaya, N.E. India.
<i>Calla rubescens</i>			
<i>Homalomena rubescens</i>			
Lagenandra	<i>Lagenandra nairii</i>	-	S. India.
	<i>Lagenandra ovata</i>	<i>Arum ovatum</i>	Peninsular India.
	<i>Lagenandra toxicaria</i>	<i>Lagenandra ovata</i>	Peninsular India.
	<i>Lagenandra undulata</i>	-	N.E. India, E. Himalaya.
Lasia	<i>Lasia spinosa</i>	<i>Dracontium spinosum</i>	Not reported
		<i>Pothos heterophyllum</i>	
		<i>Lasia heterophylla</i>	
Pistia	<i>Pistia stratiotes</i>	-	Throughout India.
Plesmonium	<i>Plesmonium margaritifera</i>	<i>Arum margaritifera</i>	N. to E. India.
Pothos	<i>Pothos aromaticus</i>	-	S. India.
	<i>Pothos cathcartii</i>	-	Tropical Himalaya, E. & N.E. India.
	<i>Pothos macrocephalus</i>	-	Andaman & Nicobar Islands.
	<i>Pothos roxburghii</i>	<i>Pothos scandens</i>	N.E. India, Andaman & Nicobar Islands.
	<i>Pothos scandens</i>	<i>Pothos cognatus</i>	Throughout India.
	<i>Pothos thomsonianus</i>	-	S. India.
	<i>Pothos vriesianus</i>	-	E. Himalaya.
Pythonium	<i>Pythonium ecaudatum</i>	-	E. Himalaya.
Remusatia	<i>Remusatia hookeriana</i>	-	Temperate Himalaya, N.E. India.
	<i>Remusatia vivipara</i>	<i>Arum viviparum</i> <i>Calodium viviparum</i>	Peninsular & E. India, subtropical Himalaya.
Rhaphidophora	<i>Rhaphidophora affinis</i>	-	N.E. India.
	<i>Rhaphidophora calophyllum</i>	<i>Rhaphidophora lancifolia</i>	E. Himalaya, N.E. India.
		<i>Rhaphidophora peepla</i>	
	<i>Rhaphidophora decursiva</i>	<i>Pothos decursiva</i>	Peninsular to E. India, Tropical Himalaya.
		<i>Scindapsus decursivus</i>	
		<i>Rhaphidophora eximia</i>	
	<i>Rhaphidophora glauca</i>	<i>Pothos glaucus</i>	Tropical & subtropical Himalaya, N.E. India.
<i>Rhaphidophora grandis</i>	<i>Rhaphidophora eximia</i>	N. to E. & N. E. India, E. Himalaya.	

	<i>Rhaphidophora honkongensis</i>	<i>Rhaphidophora schottii</i>	N. E. India.
	<i>Rhaphidophora hookeri</i>	-	Throughout N. E. India, Himalaya.
	<i>Rhaphidophora korthalsii</i>		E. Himalaya.
	<i>Rhaphidophora peepla</i>	<i>Pothos peepla</i>	E. Himalaya, N.E. India.
	<i>Rhaphidophora pertusa</i>	<i>Pothos pertusa</i>	Peninsular India, Andaman & Nicobar Islands.
Sauromatum	<i>Sauromatum brevipes</i>	<i>Typhonium brevipes</i>	Temperate Himalaya, E. India.
	<i>Sauromatum pedatum</i>	<i>Arum pedatum</i>	Peninsular & N.E. India, Himalaya, upper Gangetic plains.
		<i>Arum venosum</i>	
		<i>Arum guttatum</i>	
		<i>Sauromatum venosum</i>	
<i>Sauromatum guttatum</i>			
Scindapsus	<i>Scindapsus cuscuaria</i>	<i>Pothos cuscuaria</i>	Andaman & Nicobar Islands.
	<i>Scindapsus officinalis</i>	<i>Pothos officinalis</i>	E. & N.E. India, Andaman & Nicobar Islands, Tropical Himalaya.
Stuednera	<i>Stuednera assamica</i>	-	N.E. India.
	<i>Stuednera colocasioides</i>	<i>Stuednera virosa</i>	E. Himalaya, N.E. India.
	<i>Stuednera discolor</i>	-	Not reported
	<i>Stuednera gagei</i>	-	N.E. India.
	<i>Stuednera griffithii</i>	-	E. Himalaya & N.E. India.
Therophonum	<i>Therophonum dalzellii</i>	<i>Tapinocarpus indicus</i>	Peninsular India.
		<i>Therophonum indicum</i>	
		<i>Therophonum uniseriatum</i>	
	<i>Therophonum fischeri</i>	-	S. India.
	<i>Therophonum infaustum</i>	-	S. India.
	<i>Therophonum minutum</i>	<i>Arum minutum</i>	Peninsular & E. India.
		<i>Arum crenatum</i>	
		<i>Therophonum crenatum</i>	
		<i>Therophonum zeylanicum</i>	
		<i>Therophonum minutum</i>	
		<i>Therophonum wightii</i>	
<i>Therophonum sivanganum</i>	<i>Pauella sivagangana</i>	S. India.	
Thomsonia	<i>Thomsonia hookeri</i>	<i>Allopythion hookeri</i>	N.E. India.
	<i>Thomsonia nepalensis</i>	-	Tropical Himalaya, N.E. India.
Typhonium	<i>Typhonium bulbiferum</i>	-	Peninsular India.

	Typhonium diversifolium	Typhonium huegelianum	Temperate Himalaya.
	Typhonium flagelliforme	Arum flagelliforme	Peninsular to E. & N.E. India, Andaman & Nicobar Islands.
		Arum cuspidatum	
		Typhonium cuspidatum	
		Typhonium divaricatum	
	Typhonium incurvatum		
	Typhonium foliolosum	Heterostalis foliolosa	Temperate W. Himalaya.
	Typhonium gracile	Arum gracile	N.W. & N.E. India.
	Typhonium inopinatum	-	E. India.
	Typhonium listeri	-	N.E. India.
	Typhonium roxburghii	Typhonium mottleyanum	S. & E. India.
		Typhonium schottii	
		Typhonium trilobatum	
		Typhonium amboinense	
	Typhonium trilobatum	Arum trilobatum	Peninsular, E. & N.E. India.
	Typhonium uniseriatum	-	S. India.
Zantedeschia	Zantedeschia aethiopica	Calla aethiopica	Tamil Nadu. ⁹

II. CONCLUSION

Plant families are the level of the taxonomic hierarchy that many researchers use to organize their understanding of plant diversity. Consequently, from many perspectives, it is very useful to be able to recognize the major plant families 'on sight'. In this study, common facts about plant family Araceae have been described.

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