

Survey of Different Plants in Kas Pathar Region

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Abstract— Many of the flowering plant which are present in India one of the megadiversity countries in the world with four biodiversity hotspots and three megacentres of endemism. The flora of India shows high diversity in terms of families, genera and species of angiosperms.

Forest plays an important role in the life and economy of the country. Forest has a direct, intimate and profound relationship with the economy of Indian people. This is one of the natural wealth, which is shared by rich and poor. The forest provider’s major as well as minor products of commercial importance to local inhabitants. Almost two thirds of over 100 phytogeographically significant species occur on the plateau top; these represent 26 plant families and 43 genera. About 80% of the species are restricted to the upper plateau and its escarpments.

Keywords— Flowering plant, biodiversity hotspots, phytogeographically, natural wealth.

I. INTRODUCTION

The richness of flowering plants makes India one of the megadiversity countries in the world with four biodiversity hotspots and three megacentres of endemism. The flora of India shows high diversity in terms of families, genera and species of angiosperms.¹

Forest plays an important role in the life and economy of the country. Forest has a direct, intimate and profound relationship with the economy of Indian people. This is one of the natural wealth, which is shared by rich and poor. The forest provider’s major as well as minor products of commercial importance to local inhabitants.² Almost two thirds of over 100 phytogeographically significant species occur on the plateau top; these represent 26 plant families and 43 genera. About 80% of the species are restricted to the upper plateau and its escarpments.³

The Western Ghats of India are known to be a major biological hotspot that supports plant diversity and endemism. On the Kas Plateau, a lateritic plateau of the Northern Western Ghats, we examined mesoscale distributions of endemic, rare, or locally significant plant species in forest habitats or on the plateau.³

Kas Plateau is situated atop the Sahyadris near Satara, Maharashtra.⁴ The Kas Plateau is one of the important sadas located in Satara district, at an elevation of around 1,213 m. The average height of plateau is 1200 to 1400 meters above the sea level.⁵ The Kas pathar is 28 kms away from Satara city

having historical background.¹ Towards the end of the rains in September, the plateau comes to life with various types of flowers that carpet the floor of the plateau. The rainfall received is between 2,000 and 2,500 mm annually.⁵ The total area of 1,792 hectares under the Kas plateau, 1,142 hectares is recorded as Government Forest. "According to a crumbling forest department board at the site, more than 150 types of flower shrubs, grasses, orchids bloom here for a 3-4 week period. Many of these flowers are animal (insect) eaters!!"⁴

As per available records with State forest department of Maharashtra and botanical survey report, more than 850 types of plants, 156 families, 680 genera, 1452 species and 400 medicinal plants are recorded in the study region of Maharashtra. In addition to this species 38 species (6%) out of 624 endangered species recorded in ‘Red data book’ are also growing on Kas plateau.⁵

The plateau is full of wild flowers during the months of August and September. These flowers bloom on their own and stay for about 2–3 weeks (depending on the monsoon and other weather factors). Recently it has been declared as Biodiversity World heritage site by the United Nations Educational Scientific and Cultural Organization (UNESCO).

Kas is home to the “*Impatiens lawii*’, *balsamina*, *dalzellii*, *oppositifolia*, *Pulcherrima*, *acaulis* etc and also *Indigofera dalzellii* and *linifolia*, and *Limnophila aquatica* Flowers.⁴

This study includes survey of different plants in Kas pathar region.

Sr. No.	Plant name	Local Name	Family
1	<i>Senecio grahamii</i> (Old name) <i>Senecio Bombayensis</i> Blatt. (New name)	Sonki	<i>Astreaaceae</i>
2	<i>Adenoon indicum</i>	Motha Sonki	<i>Asteraceae</i>
3	<i>Ceropegia jainii</i> Ansari & B. G. Kulk	Jaini Kharchudi	<i>Apocynaceae</i>
4	<i>Aponogeton satarensis</i> sundararagh	(Vautara) y-tura	<i>Aponogetonaceae</i>
5	<i>Arisaema murrayi</i>	Pandhra sap-kanda	<i>Araceae</i>
6	<i>Ceropegia vincaefolia</i>	Kandal kharchudi	<i>Asclepiadaceae</i>
7	<i>Ceropegia media</i>	Medi Kharchudi	<i>Asclepiadaceae</i>
8	<i>Dipcadi montanum</i>	Deepkadi	<i>Asparagaceae</i>
9	<i>Impatiens Lawii</i> Hook f. & thom	Jambhla terda	<i>Balsaminaceae</i>
10	<i>Impatiens dalzellii</i>	Pivla terda	<i>Balsaminaceae</i>
11	<i>Impatiens acaulis</i>	Pan terda	<i>Balsaminaceae</i>
12	<i>Impatiens oppositifolia</i>	Lal terda	<i>Balsaminaceae</i>
13	<i>Paracaryopsis coelestina</i>	nisurdi	<i>Boraginaceae</i>
14	<i>Begonia crenata</i>	Berki, Motiyen, Kapru	<i>Begoniaceae</i>
15	<i>Murdamia lanuginosa</i>	Abolima	<i>Commelinaceae</i>

16	<i>Murdannia simplex</i>	Nilima	<i>Commelinaceae</i>
17	<i>Cyanotis tuberosa</i>	Abhali	<i>Commelinaceae</i>
18	<i>Iphigenia stellata</i>	gulabi bhuichakra	<i>Colchicaceae</i>
19	<i>Trichosanthes tricuspidata</i>	Kaundal	<i>Cucurbitaceae</i>
20	<i>Ipomoea barlerioides</i>	Pink Morning Glory	<i>Convolvulaceae</i>
21	<i>Drosera Indica</i>	Gavati Davbindu	<i>Droseraceae</i>
22	<i>Drosera burmannii</i>	Davbindu	<i>Droseraceae</i>
23	<i>Dioscorea bulbifera</i>	Dukkar Kand	<i>Dioscoreaceae</i>
24	<i>Flemingia strobilifera</i>	Kanphuti, Nundar	<i>Fabaceae</i>
25	<i>Smithia hirsute / hirsuta</i>	Kavala	<i>Fabaceae</i>
26	<i>Swertia densifolia</i>	Kawadi	<i>Gentianaceae</i>
27	<i>Exacum tetragonum</i>	Udi chirayat	<i>Gentianaceae</i>
28	<i>Pogostemon deccanensis</i>	Jambhli Manjiri	<i>Lamiaceae</i>
29	<i>Chlorophytum glaucoides</i>	kapar musali	<i>Liliaceae</i>
30	<i>Nymphoides indica</i>	Kumudini	<i>Menyanthaceae</i>
31	<i>Memecylon umbellatum</i>	Anjan	<i>Melastomataceae</i>
32	<i>Habenaria grandifloriformis</i>	Ashadh habe-amri	<i>Orchidaceae</i>
33	<i>Habenaria heyneana</i>	Kangwa Habe-amri	<i>Orchidaceae</i>
34	<i>Habenaria longicorniculata</i>	Sheput habe-amri	<i>Orchidaceae</i>
35	<i>Hitchenia caulina</i>	Tikhur	<i>Zingiberaceae</i>
36	<i>Ceropegia oculata (Hook.)</i>	Mor Kharchudi	<i>Apocynaceae: Asclepidoideae</i>

Senecio grahamii



Kingdom:-Plantae.
Phylum: - Spermatophyta.
Class: - Magnoliopsida.
Order: - Asterales.
Botanical name: *Senecio grahamii*.
Synonyms: *Senecio bombayensis*,
Senecio reticulatus.
Marathi: Sonki.
Family: Asteraceae.
(Sunflower family)

It is an erect branched annual herb, growing to 30-100 cm high. Alternately arranged, rhomboid, coarsely toothed leaves are 3-10 cm long. Golden yellow flower-heads are 1-2 cm across. Ray-flowers ("petals") are 10-15 in number, linear oblong. Disk flowers are also yellow, but in a darker shade.⁶

Adenoon indicum



Kingdom: - Plantae.
Phylum: - Spermatophyta.
Class: - Magnoliopsida.
Order: - Asterales.
Botanical name: *Adenoon indicum*.
Common name: Blue Sonki.
Marathi: Motha Sonki.
Family: Asteraceae. (Sunflower family)





Blue Sonki an erect branched plant, half a meter tall. Alternately arranged, stalkless, broad-elliptic leaves, 5-8 cm long, are acute at both ends. Leaf margin is coarsely serrated, rough, and glandular. Leaves are light green above, pale beneath. Blue-purple flower-heads occur in corymbose panicles 10-20 cm. Bracts oblong, hairy, nerves 3 pairs, glandular; style arms hairy.⁷

***Ceropegia jainii* Ansari & B. G. Kulk**




Botanical name: *Ceropegia jainii*.
Synonyms: *Ceropegia prainii*.
Common name: *Ceropegia jaini*.
Marathi: Jaini Kharchudi.
Family: Asclepiadaceae.
(Milkweed family)


Jaini Ceropegia is a very rare and threatened herb, endemic to the Sahyadri Hills. It is a small erect herb, 10-20 cm high, with tuberous root. Tubers are hairless; 2-3 cm, slender stem is green with oppositely arranged leaves. Leaves are linear-lance-shaped, 2-5 cm long, hairy on both sides, margins with stiff hairs. Flowers occur singly in leaf axils. Slender flower-stalks are 6-10 mm long. Sepals are lance-shaped, 3-5 mm. Flowers are 2 cm long, tubular, with the tube enlarged at the base and white. Five narrow linear petals are 1 cm long, reddish-purple, and hairy at the base. Sometimes the flower is completely purplish-red.⁸

<i>Aponogeton satarensis sundararagh</i>		
	<p>Kingdom: - Plantae. Phylum: - Tracheophyta. Class: - Liliopsida. Order: - Najadales. Botanical name: <i>Aponogeton satarensis</i>. Common name: Satara Aponogeton. Marathi: y-tura. Family: <i>Aponogetonaceae</i>. (Cape-pondweed family)</p>	<p>Satara Aponogeton is an aquatic herb 16-22 cm long. Leaves are green, lanceshaped, 3.5-8.5 cm long, 0.5-1.4 cm broad. Flowers are borne in pink-purple slender spikes.⁹</p>
<i>Arisaema murrayi</i>		
	<p>Kingdom: -Plantae. Phylum: -Magnoliophyta. Class: - Liliopsida. Order: -Alismatales. Genus: -Arisaema. Botanical name: <i>Arisaema murrayi</i>. Common name: Murray's Cobra Lily. Marathi: Pandhra sap-kanda. Family: <i>Araceae</i>. (Arum family)</p>	<p>Murray's Cobra Lily is a species of Cobra Lily found in the Western Ghats. It is a tuberous herb, 30-50 cm high. A single leaf, with 5-7 leaflets, comes out after the flowers. The inflorescence is typical of the cobra lily plants. The spathe (or the "hood") is 5-15 cm, forming wide tube at the base; the upper part of the spathe is white with purple base. The lower part is green. A deep purple threadlike appendage comes out from the spadix. It is curved and protrudes out of the "hood". Minute flowers reside on the spadix, covered by the spathe.¹⁰</p>
<i>Ceropegia vincaefolia</i>		
	<p>Kingdom: - Plantae. Class: - Magnoliopsida. Order: - Gentianales. Genus: - Ceropegia. Botanical name: <i>Ceropegia vincifolia</i>. Common name: Vinca-Leaved Ceropegia. Marathi: Kandil Kharchudi. Synonym: <i>Ceropegia hirsuta</i> var. <i>vincifolia</i>. Family: <i>Asclepiadaceae</i>. (Milkweed family)</p>	<p>Vinca-Leaved Ceropegia is a herbacious climber with flattened tuber. Stems are twining, hairless. Leaves are ovate with a heart-shaped base and long-pointed tip, with upper surface hairy. Flowers are borne in many-flowered clusters carried on hairy stalks. Flower-stalks are hairless. Flowers are 3-8 cm long, yellowish, with a swollen ovoid portion occupying the lower 1/3rd or 1/4th part of the flower-tube. Sepals are linear. Flower tube has purple stripes in the upper half, widening in a funnel-shaped manner towards the mouth. The tube open into 5 petals, 1.5-3.5 long, linear from a triangular-ovate base, pointed at the tip, fused into a narrow ovoid cage. Petals are folded back along the mid-rib, inside velvety, with hairy margin, lower half pale green, upper half dark green.¹¹</p>
<i>Ceropegia media</i>		
	<p>Botanical name: <i>Ceropegia media</i>. Common name: Medium Ceropegia. Marathi: Medi Kharchudi. Family: <i>Asclepiadaceae</i>. (Milkweed family)</p>	<p>Medium Ceropegia is a slender twinning climber 1-2 m long. Stems are slender, purple, and root tuberous. Oppositely arranged leaves are narrowly linear, lanceshaped, 5-15 cm long. Leaves are hairy with a rounded base. Flowers arise in leaf axils in clusters of 2-4. The stalk carrying the cluster is 2-4 cm long. Flower-stalks are 1-2 cm long, hairy. Flowers are 2-3 cm long, with a 2 cm long tube, slightly inflated at the base. The tube enlarges at the top, to a purple mouth. The petals at the top are purple, 1 cm long.¹²</p>


Dipcadi montanum

	<p>Botanical name: <i>Dipcadi montanum</i>. Common name: Katuvengain. (Tamil) Marathi: Dipcadi, Deepkadi. Family: Asparagaceae (Asparagus family)</p>	<p>Dipcadi is an erect bulbous herb, 20-30 cm tall. Bulbs are spherical, 2.5 cm across. Leaves are narrow, linear, 25-30 cm long, with a sharp tip. Flowers are greenish white. Petals (rather perianths) are in two whorls of 3 each. Outer "petals" are longer, curved outwards. Inner "petals" are shorter. Stamens are 6 in number, attached to the "petals".¹³</p>
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Impatiens Lawii Hook f. & thoms

	<p>Kingdom: - Plantae. Phylum: -Magnoliophyta. Class: - Magnoliopsida. Order: -Geraniales. Genus: - <i>Impatiens</i>. Botanical name: <i>Impatiens lawii</i>. Common name: Law's Balsam. Marathi: jambhla terada. Family: Balsaminaceae. (Balsam family)</p>	<p>Law's Balsam is an annual herb, 10-30 cm tall. Short, succulent stem is swollen at the nodes, and sports many slender branches. Oppositely arranged, stalk less leaves are shortly oblong, sharp tipped, 2-3 cm long. The leaf margins have spiny teeth. Upper leaves are smaller, heart-shaped and stem-clasping. Violet purple flowers occur singly in leaf axils, and are 6-8 mm across. Filament-like flower-stalks are 2-3 cm long. The standard petal is circular. Unlike most balsams, the spur is absent. Capsules are narrow, 1 cm long.¹⁴</p>
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Impatiens dalzellii

	<p>Botanical name: <i>Impatiens dalzellii</i>. Common name: Dalzell's Yellow Balsam. Marathi: Pivla terda. Family: Balsaminaceae. (Balsam family)</p>	<p>It is an annual herb, growing to 1-1.5 ft tall. Stem are erect, succulent, swollen at the nodes. Alternately arranged lance-shaped leaves, 5-12 cm long, are pointed and have serrated margin with spines in the teeth. Base of the leaves is heart-shaped. While the lower leaves have a short stalk, the upper ones are stalkless. Yellow flowers occur singly in the upper leaf axils. They are 1-1.5 cm across. Sepals are linear and the standard petal is hooded, winged on the back. Lip is boat-shaped, streaked with red veins. The spur is short. Capsules are 1-1.5 cm long. Dalzell's Yellow Balsam is endemic to Western Ghats.¹⁵</p>
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Impatiens acaulis

	<p>Kingdom: - Plantae. Phylum: - Spermatophyta. Subphylum: -Angiospermae. Class: -Magnoliopsida. Order: -Geraniales. Botanical name: <i>Impatiens acaulis</i>. Common name: Rock Balsam. Marathi: Pan terda (Marathi), Lahan-Tirda. Family: Balsaminaceae. (Balsam family)</p>	<p>Pan Terda is a perennial herb commonly found gregariously growing on rock. Leaves vary in size and shape - oblong, base rounded, irregularly toothed. Beautiful pink flowers occur in racemes 3-10 cm long. There are four "petals" visible to the eye, but technically there are only 3 petals. The front one is short and insignificant. The two petals at the back are long and deeply 2-lobed. The flowers color varies from a delicate light pink to deep pink. The petals are white near the base. The usual balsam "spur" is slender, long and curved.¹⁶</p>
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Impatiens oppositifolia

	<p>Kingdom: - Plantae. Phylum: -Spermatophyta. Subphylum: -Angiospermae. Class: -Magnoliopsida. Order: -Geraniales. Botanical name: <i>Impatiens oppositifolia</i>. Synonyms: <i>Impatiens rosmarinifolia</i>. Common name: Rosemary Leaved Balsam. Marathi: Lal terda. Family: Balsaminaceae. (Balsam family)</p>	<p>Rosemary Leaved Balsam is an annual herb, 30-50 cm high. One of its species name rosmarinifolia means having leaves like rosemary. Rosemary is a plant with narrow leaves. The leaves of Rosemary Leaved Balsam are opposite, 3-8 cm, narrow lance like, with spiny teeth. Upper leaves are stalkless, while the lower ones have stalks. Orange-purple flowers, 1-1.5 cm occur in leaf axils either solitary or in groups of 2-3. The standard petals are round. The lip is conical like a hook.¹⁷</p>
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Paracaryopsis coelestina

	<p>Botanical name: <i>Adelocaryum coelestinum</i>. Common name: Common Hill Borage. Marathi: nisurdi. Synonyms: <i>Cynoglossum coelestinum</i>, <i>Paracaryopsis coelestina</i>, <i>Paracaryum coelestinum</i>. Family: Boraginaceae (forget-me-not family).</p>	<p>Common hill borage is a flower which looks like a beautiful white version of the famous blue Forget-Me-Not. The white or pale blue flowers, 6-10 mm across, have a shape similar to forget-me nots, but have a blue shaded center. It is an erect perennial herb, 1-2 m tall, with red stems and branches. Basal leaves are very large, up to 25 cm long, ovate-heart-shaped, carried on foot long red stalks. Stem leaves are smaller, 5 cm long, carried on short stalks. Flowers are borne in forked racemes on branch ends.¹⁸</p>
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Begonia crenata

	<p>Kingdom: - Plantae. Phylum: - Spermatophyta. Class: - Magnoliopsida. Order: - Begoniales. Botanical name: <i>Begonia crenata</i>. Common name: Common Begonia. Marathi: Berki, Motiyen, Kapru. Family: Begoniaceae. (Begonia family)</p>	<p>Common Begonia is an annual succulent herb, growing up to 25 cm. It is quite common among forested hilly regions of Western Ghats, and is seen growing on sheltered moss covered rocks, in groups. Slender branches are smooth, succulent and red in color. Alternately arranged ovate, acute leaves with crenate margins, are 3-8 cm long. Leaf base is unequally heart-shaped. Flowers occur on slender stalks. Male flowers are 1 cm across, pink in color, and have 2 petals and 2 sepals. Female flowers have 5 unequal perianth segments. Capsules are 608 mm, 3 winged.¹⁹</p>
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Murdannia lanuginosa

	<p>Botanical name: <i>Murdannia lanuginosa</i>. Common name: Marsh Dew flower, Marsh dayflower. Marathi : Abolima. Family: Commelinaceae. (Dayflower family)</p>	<p>Marsh dewflower is an annual, emergent plant that invades water edges and marshes, often growing emersed. It forms dense mats of vegetation which out-compete native vegetation. Plant stems are succulent, root at the nodes, and grow prostrate along the ground. Leaves are alternate, lance-shaped, and up to 3 inches long. The flowers occur at the ends of the stems or arise from the position between the stems and leaves (leaf axils) Flowers can occur singly or in clusters of 2 to 4. All flowers occur on short flower stalks and consist of 3 purple, blue, pink, yellow, or nearly white petals that are approximately 1/3 inch long.²⁰</p>
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Murdannia simplex

	<p>Botanical name: <i>Murdannia simplex</i> (Vahl) Brenan. Synonyms: - <i>Aneilema sinicum</i> Ker-Gawl. <i>Commelina simplex</i> Vahl. Family: Commelinaceae.</p>	<p>It is perennial herb, 30-60 cm. Leaves 3-4, mostly basal; lamina up to 20 × 1 cm, linear, glabrous, but ciliate towards the base; basal part sheathing. Inflorescence bearing scars of early flowers. Flowers opening in late afternoon. Petals 3, equal, obovate, 10 mm. Stamens: 2 upper, fertile and curved downwards, the third sterile; filaments with long purple, beaded hairs. Staminodes 3 with glabrous filaments, the empty anthers yellow and 3-lobed. Capsule oblong-spherical, 6 mm. Seeds oblong-spherical, 1.5 mm, the transverse ribs tuberculate, reticulate.²¹</p>
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Cyanotis tuberosa

	<p>Kingdom: Plantae. Phylum: Magnoliophyta. Class: Liliopsida. Order: Commelinales. Genus: Cyanotis. Botanical name: <i>Cyanotis tuberosa</i>. Common name: Greater Cat Ears. Marathi: Abhali. Family: Commelinaceae. (Dayflower family)</p>	<p>Greater Cat Ears is a succulent herb, 15-90 cm high, growing in forests and hills of the Western Ghats. Stalkless, sheathed leaves 15-25 X 1-2 cm, coming out from the roots. Upper stem leaves are shorter. Bluish purple flowers occur in cymes at the end of branches, enclosed in a pair of ovate, partially folded bracts. There are six stamens with filaments densely bearded with long blue hairs. Yellow anthers are prominent.²²</p>
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Iphigenia stellata

	<p>Botanical name: <i>Iphigenia stellata</i>. Common name: Star Grass Lily. Marathi: gulabi bhuichakra. Family: Colchicaceae. (Colchicum family)</p>	<p>Star Grass Lily is a perennial herb which occurs widely in the Western Ghats of Maharashtra. Leaves are narrow, linear, and the flowers are pink, star-shaped, with narrow-elliptic petals.²³</p>
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Trichosanthes tricuspidata

	<p>Botanical name: <i>Trichosanthes tricuspidata</i>. Common name: Indrayan. Marathi: Kaundal. Hindi: Mahakal, Indrayan. Sanskrit: Kakanasa, Shvetpushpi, Dhvamksanasa Synonyms: <i>Trichosanthes palmata</i>, <i>Trichosanthes bracteata</i>, <i>Modecca bracteata</i>. Family: Cucurbitaceae. (Pumpkin family)</p>	<p>Indrayan is a large climber, 5-20 m long. It has strong, woody and grooved stem, with trailing branches. Tendrils are divided into 2-3 parts. Leaves are 6-12 cm across, are broadly heart-shaped, but palmately 3-5 lobed. The leaf margin is toothed. Flowers occur either singly or in 5-10 flowered racemes, in leaf axils. Sepal cup is tubular, 3-4 cm long. Flowers 4-5 cm, white, with 5 wedge-shaped petals with frilly margins. Fruit is spherical, 4-5 cm across, red when ripe, streaked with 10 orange streaks.²⁴</p>
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Ipomoea barlerioides

	<p>Kingdom: - Plantae. Phylum: - Spermatophyta. Subphylum: - Angiospermae. Class: - Magnoliopsida. Order: - Polemoniales. Botanical name: <i>Ipomoea barlerioides</i> Common name: Pink Morning Glory. Family: Convolvulaceae. (Morning glory family)</p>	<p>Pink Morning Glory is a slender trailing herb. Alternately arranged leaves are oblong lance-shaped, with a point tip and base somewhat heart-shaped, hairy, 2-5 cm long, and 0.5 cm wide. Leaves are carried on 2-3 cm long stalks. Flowers are pink, funnel-shaped, 2 inches long, arising singly in leaf axils, on 5-6 cm long stalk. Sepals are 5, nearly equal, lance-shaped, 1.5-2.2 cm long, hairy. Fruit is an ovoid capsule, with the persistent sepals, up to 0.5 cm in diameter.²⁵</p>
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Drosera Indica

	<p>Kingdom: Plantae. (Unranked): Angiosperms (Unranked): Eudicots. (Unranked): Core eudicots. Order: Caryophyllales. Botanical name: <i>Drosera indica</i>. Genus: <i>Drosera</i>. Species: <i>Drosera indica</i>. Family: Droseraceae.</p>	<p><i>Drosera</i>, commonly known as the sundews, is one of the largest genera of carnivorous plants, with at least 194 species. These members of the family Droseraceae lure, capture, and digest insects using stalked mucilaginous glands covering their leaf surfaces. The insects are used to supplement the poor mineral nutrition of the soil in which the plants grow. Various species, which vary greatly in size and form, are native to every continent except Antarctica. Both the botanical name (from) the Greek δρόσος: drosos = "dew, dewdrops") and the English common name (sundew, derived from Latin ros solis, meaning "dew of the sun") refer to the glistening drops of mucilage at the tip of each tentacle that resemble drops of morning dew.²⁶</p>
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Drosera burmannii

	<p>Kingdom: Plantae. (Unranked): Angiosperms (Unranked): Eudicots. (Unranked): Core eudicots. Order: Caryophyllales. Botanical name: <i>D. burmannii</i> var. <i>dietrichiana</i> Genus: <i>Drosera</i>. Species: <i>Drosera burmannii</i> Family: Droseraceae.</p>	<p><i>Drosera burmannii</i>, the tropical sundew, is a small, compact species in the carnivorous plant genus <i>Drosera</i>. It normally spans only 2 cm (0.8 in) in diameter. It is one of the fastest trapping sundews as well, and its leaves can curl around an insect in only a few seconds, compared to the minutes or hours it takes other sundews to surround their prey. In nature, <i>D. burmannii</i> is an annual, but in cultivation, when grown indoors during the cold months, it can live for many years. Since <i>D. burmannii</i> is an annual, it produces large amounts of seed. <i>Drosera burmannii</i> has been considered a powerful purgative in Hindu medicine. <i>Drosera burmannii</i> is an herb that produces very short stems and leaves in a rosette. Each wedge-shaped leaf is typically 8–10 mm long and 5–6 mm wide. White flowers are produced in groups of 3 to 10 on 6–15 cm (2–6 in) tall racemose inflorescences, of which there can be one to three per plant.²⁷</p>
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Dioscorea bulbifera

	<p>Kingdom: Plantae. (Unranked): Angiosperms (Unranked): Eudicots. (Unranked): Monocots Order: Dioscoreales Botanical name: <i>Helmia bulbifera</i> (L.) Kunth, <i>Polynome bulbifera</i> Genus: <i>Dioscorea</i>. Species: <i>Dioscorea bulbifera</i> Family: Dioscoreaceae.</p>	<p><i>Dioscorea bulbifera</i>, the air potato, is a species of true yam in the yam family, Dioscoreaceae. It is known as varahi in Sanskrit, kaachil in Malayalam and dukkar kand in Marathi. In the Maldives it's known as Mathivah, Assidha Kattala or Bileh Kattala. It is native to Africa, southern Asia, India, Maldives, China, Japan, Philippines, Indonesia, etc.) And northern Australia. It is widely cultivated and has escaped to become naturalized in many regions (Latin America, the West Indies, the southeastern United States, and various oceanic islands).²⁸</p>
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Flemingia strobilifera

	<p>Kingdom: Plantae. (Unranked): Angiosperms (Unranked): Eudicots. (Unranked): Rosids Order: Fabales Botanical name: Flemingia bracteata (Roxb.) Wight, Flemingia fruticulosa Benth. Genus: Flemingia Species: F. strobilifera Family: Fabaceae</p>	<p><i>Flemingia strobilifera</i> is a flowering plant in the legume family, Fabaceae. It belongs to the sub family Faboideae. <i>Flemingia strobilifera</i> is native to Eastern Asia. It is common in China, Taiwan, Bhutan, India, Nepal, Pakistan, Sri Lanka, Laos, Myanmar; Thailand, Vietnam, Indonesia, Malaysia, Papua New Guinea and Philippines.^[1] It is known as makhiyoti (মাকিয়তী) in the north-eastern Indian state of Assam. It is an essential part of the Bihu (গৰু বিহু) festival, during which the cattle are washed and gently beaten with twigs of this plant.²⁹</p>
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Smithia hirsute / hirsuta

	<p>Kingdom: Plantae. (Unranked): Angiosperms (Unranked): Eudicots. (Unranked): Monocots Order: Dioscoreales Botanical name: Helmia bulbifera (L.) Kunth, Polynome bulbifera Genus: Drosera. Species: Dioscorea bulbifera Family: Droseraceae.</p>	<p>Smithia is a genus of flowering plants in the legume family, Fabaceae. It belongs to the sub family Faboideae, and was recently assigned to the informal monophyletic Dalbergia clade of the Dalbergiaceae³⁰</p>
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Swertia densifolia

	<p>Kingdom: Plantae. (Unranked): Angiosperms (Unranked): Eudicots. (Unranked): Asterids Order: Gentianales Botanical name: C. Marquand Genus: Swertia Species: Swertia perennis L. Family: Gentianaceae</p>	<p>Swertia is a genus in the gentian family containing plants sometimes referred to as the felworts. Some species bear very showy purple and blue flowers. Plants of genus Frasera are sometimes considered part of this genus, sometimes as a separate genus, and sometimes as synonymous³¹</p>
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Exacum tetragonum

	<p>Kingdom: Plantae. (Unranked): Angiosperms (Unranked): Eudicots. (Unranked): Asterids Order: Gentianales Botanical name: • Exacum axillare • Exacum bicolor Genus: Exacum Species: Dioscorea bulbifera Family: Gentianaceae</p>	<p>Bicolor Persian Violet is an annual herb, 0.5-1 m high. Stem are quadrangular. Oppositely arranged, stalkless leaves are narrow, elliptic-lanceolate or ovate-lanceolate, with a sharp tip and rounded base. Flowers are large and showy, occurring in cymes at the end of branches. The four long, ovate sepals are joined together. Flower tube is long, with petals up to 2 cm long, broadly ovate, acute, white below, blue at tips. Stamens 4, filaments equal, short, dilated at base. Flowering: September-December.³²</p>
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Pogostemon deccanensis

	<p>Kingdom: Plantae. (Unranked): Angiosperms (Unranked): Eudicots. (Unranked): Asterids Order: Lamiales Botanical name: Wensea J.C.Wendl. Dysophylla Blume Genus: Pogostemon Species: Pogostemon amaranthoides Family: Lamiaceae</p>	<p>Pogostemon is a large genus from the family Lamiaceae, first described as a genus in 1815. It is native to warmer parts of Asia, Africa, and Australia. The best known member of this genus is Patchouli, Pogostemon cablin, widely cultivated in Asia for its scented foliage, used for perfume, incense, insect repellent, herbal tea, etc.³³</p>
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Chlorophytum glaucoides

	<p>Kingdom: Plantae. (Unranked): Angiosperms (Unranked): Eudicots. (Unranked): Monocots Order: Chlorophytum Botanical name: Glaucous Chlorophytum Genus: Chlorophytum Species: Glaucous Chlorophytum Family: Liliaceae</p>	<p>Glaucous Chlorophytum is a perennial herb, growing up to 50-80 cm tall. Leaves, arising from the base, are 4-6, 20-30 cm long, 2-4 cm broad, elliptic-lance shaped, long-pointed, leathery. Leaf margins are not curled. Fragrant white flowers are borne in racemes 20-30 cm long, covered with sheathing scales. Bracts are persistent. Stamens are 6, and the style is slender. Capsule is black, round, 8 mm across. Glaucous Chlorophytum is found in Western Ghats.³⁴</p>
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Nymphoides indica

	<p>Kingdom: Plantae. (Unranked): Angiosperms (Unranked): Eudicots. (Unranked): Asterids Order: Asterales Botanical name: Nymphoides indica Genus: Nymphoides Species: N. indica Family: Menyanthaceae</p>	<p>Nymphoides indica is an aquatic plant in the Menyanthaceae, native to tropical areas around the world. It is sometimes cultivated, and has become a minor weed in Florida, where it resembles the native Nymphoides aquatica. Common names include banana plant, robust marshwort, and water snowflake. Nymphoides indica spreads by rhizomes, forming clusters of leaves, with clustered white flowers about 1cm across. The flowers are sometimes described as having five petals, but can have more.³⁵</p>
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Memecylon umbellatum

	<p>Kingdom: Plantae. (Unranked): Angiosperms (Unranked): Eudicots. (Unranked): Rosids Order: Myrtales Botanical name: Memecylon umbellatum Genus: Memecylon Species: M. umbellatum Family: Melastomataceae.</p>	<p><i>Memecylon umbellatum</i>, commonly known as Ironwood, or Alli (Hindi), is a small tree found in India, the Andaman islands and the coastal region of the Deccan. It is also found in Sri Lanka, where it is called <i>Blue Mist</i>, <i>Kora-Kaha</i> (Sinhala language) and <i>Kurrikaya</i> (Tamil language). The leaves contain a yellow dye, a glucoside, which is used for dyeing the robes of Buddhist monks and for colouring reed mats (Dumbara mats). Medicinally, the leaves are said to have anti-diarrhoeal properties.³⁶</p>
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Habenaria grandifloriformis



Kingdom: Plantae.
(Unranked): Angiosperms
(Unranked): Eudicots.
(Unranked): Monocots
Order: Asparagales
Botanical name: Dune orchid
Genus: Habenaria
Species: Habenaria amalfitana
Family: Orchidaceae

Habenaria species have small to large underground root tubers and erect stems 20 to 80 cm (8 to 31 in) in length. Leaves are lanceolate or ovate, and are borne either along the stem (cauline) or only at the base (basal). When basal, leaves lie flat on the ground. Flowers are mostly green, white, yellow and green, or white and green, but a few exceptions have brilliant red flowers. The column is frequently complicated, with long organs sticking out of it (stigma processes, lateral rostellum arms, anther canals). The plant is a perennial deciduous, with the entire above-ground part of the plant dying back each year.³⁷

Habenaria heyneana



Kingdom: Plantae.
(Unranked): Angiosperms
(Unranked): Eudicots.
(Unranked): Monocots
Order: Asparagales
Botanical name: Habenaria heyneana
Genus: Habenaria
Species: H. heyneana
Family: Orchidaceae

Toothbrush Orchid is a terrestrial herb, growing to 10-40 cm tall. The plant has 1-2 ovoid tubers. Alternately arranged narrowly oblong leaves are 2-6 cm long. The inflorescence consists of 2-8 flowers arranged all on one side of an upright stalk. This is what gives it the common name toothbrush orchid. The flowers are greenish white to begin with, and turn yellowish as they age. White petals are 4-7 mm long. The white lip is 5-10 mm, 3-lobed. Spur is linear and 6 mm long. Flowering: August-September.³⁸

Habenaria longicorniculata



Kingdom: Plantae.
(Unranked): Angiosperms
(Unranked): Eudicots.
(Unranked): Tracheophyta
Order: Asparagales
Botanical name: Habenaria longicorniculata
Genus: Habenaria
Species: Habenaria longicorniculata
Family: Orchidaceae

Long-Tailed Habenaria is a 1-3 ft high terrestrial herb. Oblong-elliptic leaves are 3-10, clustered on the base, and lie flat on the ground. Flowers occur on a long erect stalk which is 30-80 cm tall. White fragrant flowers are 1-4 in number. Greenish white petals are 10-14 mm long. Flowers have a spur which is 10-15 cm long! Overall, the flowers have the shape of an inverted funnel. The Nilgiris have 17 species of orchids belonging to the Habenaria genus and it is usual to see hundreds of these, flowering side by side on a single grassy and rocky slope.³⁹


Hitchenia caulina



Kingdom: Plantae.
(Unranked): Angiosperms
(Unranked): Eudicots.
(Unranked): Commelinids
Order: Zingiberales
Botanical name: Hitchenia glauca
Genus: Hitchenia
Species: Hitchenia caulina
Family: Zingiberaceae

Hitchenia is a genus of plants in the ginger family. It contains only one recognized species, Hitchenia glauca, endemic to Myanmar (Burma) Indian Arrowroot is a annual herb growing upto 50-100 cm high. The plant has perennial rhizomes with many hanging tubers. Oblong lanceolate leaves are upto half a meter long. Flowers occur in a spike 10-15 cm long, and are yellow or white. More prominent are the greenish white or pinkish white bracts. Indian Arrowroot is grown for its tubers. The powder from the root is used to make porridges and eaten during upvas in Kerala.⁴⁰

Ceropegia oculata (Hook.)

	<p>Kingdom: Plantae. (Unranked): Angiosperms (Unranked): Eudicots. (Unranked): Tracheophyta Order: Gentianales Botanical name: <i>Ceropegia oculata</i> Genus: <i>Ceropegia</i> Species: <i>Ceropegia oculata</i> Family: Apocynaceae</p>	<p>Peacock <i>Ceropegia</i> is a twining herb growing in areas with high rainfall in the western ghats. The leaves are long stalked and lance-shaped to ovate. Flowers are showy. The lower part is quite swollen and takes about a third of the flowers total length. The flower-tube is thin, but broadened upward, coloured pinkish beige with some darker spots. The close-knit petals are very dark ruby-coloured, almost black and show a white stripe in the upper third. The tips are joined and emerald green.⁴¹</p>
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