

FLORAL DIVERSITY OF

DEOMALI HILL

KORAPUT FOREST DIVISION, ODISHA

2025



Floral diversity of Deomali Hill, Koraput Forest Division, Odisha

Submitted to

**The Divisional Forest Officer,
Koraput Forest Division, Odisha**

by

Ambika Prasad Research Foundation, Odisha



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Bulbophyllum crassipes

Pimpinella heyneana

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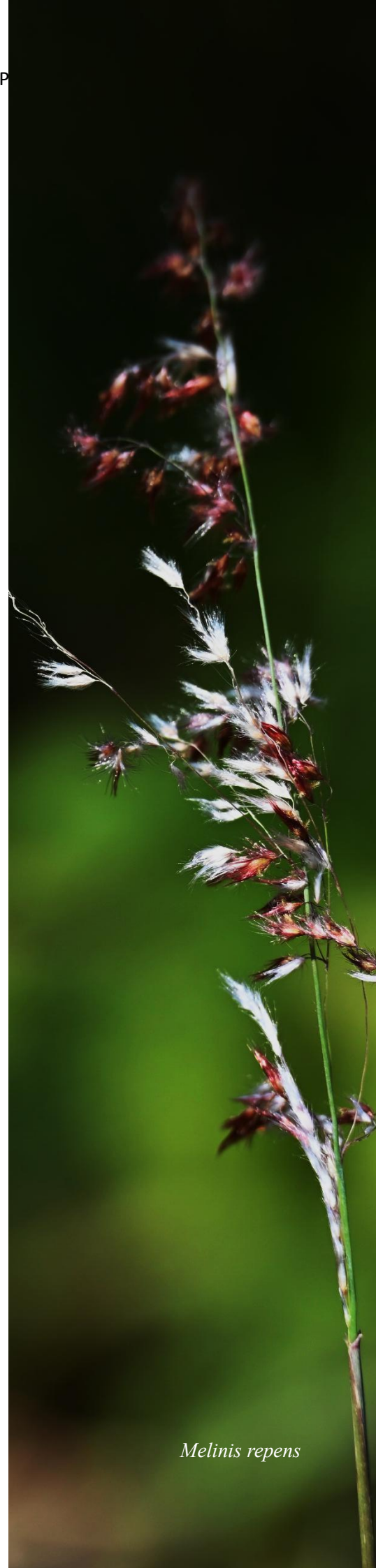
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SUMMARY

Deomali Hill, located in the Koraput district of southern Odisha, is the state's highest peak at 1,672 metres above sea level. As a part of the Eastern Ghats, it features a distinctive high-altitude tableland landscape marked by rolling grass-covered plateaus, rocky outcrops, steep escarpments and expansive valley views. Its cool climate, windswept terrain and mosaic of grasslands, montane forests and seasonal streams support a rich flora, including several threatened and endemic species. Deomali also holds deep cultural significance for local tribal communities, whose traditional practices and folklore are closely tied to the landscape.

The hill is home to 339 plant species belonging to 90 families, with the tableland alone supporting 104 species. The study area also recorded 25 invasive species and 19 major weeds, along with 21 priority species in need of conservation, such as *Drosera peltata*, *Hypericum gaitii*, *Osyris lanceolata* and *Gnetum edule*. However, increasing anthropogenic pressures, including plastic pollution from unregulated tourism, habitat degradation due to road expansion, recurrent forest fires, invasive weeds and illegal extraction of plant resources, pose serious threats to these sensitive habitats.

Safeguarding the Deomali Tableland requires restoring native vegetation, controlling invasive species and regulating tourist activities. Priority should be given to planting hardy, climate-resilient species such as *Apluda mutica*, *Themeda triandra*, *Calotropis gigantea*, *Cassia fistula* and *Dalbergia sissoo* to stabilise slopes, enrich biodiversity and strengthen roadside resilience. These ecological measures must be complemented by strict waste management, installation of dustbins and drinking water facilities, a complete ban on polythene bags and regular weed removal. The conservation of unique and threatened species, including *Hypericum gaitii*, carnivorous plants and parasitic herbs, demands strong law enforcement, habitat protection and responsible eco-tourism involving local communities. Engaging local youth as nature guides, promoting eco-education, encouraging traditional bioresource use and organising community-led fairs will help foster long-term environmental stewardship and ensure a sustainable future for Deomali.



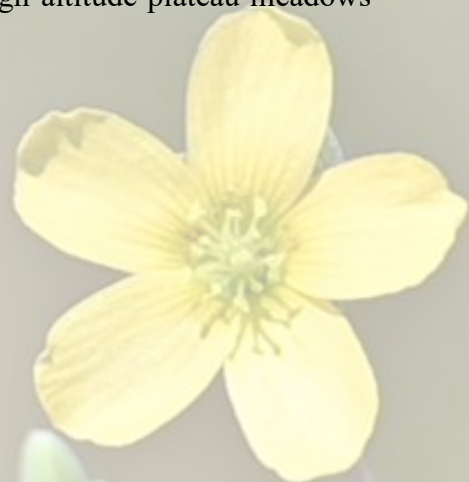
INTRODUCTION

Deomali hill, situated in the Koraput district of southern Odisha, forms the highest mountain range of the state, with its peak reaching approximately 1,672 m above sea level. As a part of the Eastern Ghats, the region is known for its diverse landscapes, unique plant diversity and high-altitude climate, making it an ecological hotspot and a major attraction for nature lovers and researchers. Deomali holds great significance as the highest peak in Odisha and a key landmark of the Eastern Ghats, supporting a biodiversity-rich mountain ecosystem that features many threatened, endemic and medicinal plant species. It also serves as an important watershed, supplying several perennial streams that flow into the Kolab River basin and holds cultural significance for nearby tribal communities, who depend on these hills for forest products, grazing and traditional livelihoods. The hills are located around latitude 18.55° N and longitude 82.90° E, with an altitude range of 1,200-1,672 m. The region is surrounded by rolling hillocks, deep valleys and high-altitude plateau meadows typical of the Eastern Ghats landscape.

DEMOGRAPHIC DETAILS

The Deomali hills region, situated in the Pottangi Block of Koraput district, is surrounded by small, dispersed tribal settlements that reflect the rich cultural and ethnic diversity of southern Odisha. The primary communities inhabiting the foothills and surrounding villages include the Paraja, Gadaba, Kondh and Bhumia tribes, each with distinct languages, traditions and socio-cultural practices. These villages are typically characterized by low population density, scattered habitation patterns and a close dependence on natural resources. Most households rely on subsistence agriculture, cultivating millets, maize, paddy, tubers and vegetables according to seasonal availability. Shifting (podu) and terrace cultivation are practised in higher slopes.

Livestock such as goats, poultry and cattle form an important part of the rural economy, supporting both nutritional and income needs. A significant portion of livelihood also comes from Non-Timber Forest Products (NTFPs) such as hill brooms, tamarind, honey, medicinal plants and wild edible fruits. Women play a central role in collecting, processing and selling forest produce in nearby markets such as Pottangi and Semiliguda.



Oxalis corniculata



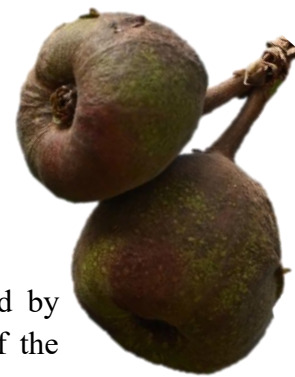
In recent years, eco-tourism around Deomali has begun providing supplementary income through guiding services, local transport, homestays, handicraft sales and food stalls. Traditional knowledge of medicinal plants, wildlife behaviour and weather patterns remains strong among these communities, contributing to the cultural identity of the region. Despite their rich heritage, many villages face developmental challenges such as limited road connectivity, seasonal water scarcity and restricted access to healthcare and education. The demographic profile of Deomali reflects a harmonious yet vulnerable relationship between tribal communities and the high-altitude ecosystem they inhabit.

TOPOGRAPHY

The topography of Deomali Hills is characterized by rugged mountainous terrain with steep slopes, narrow ridges and deep-cut valleys typical of the Eastern Ghats. The landscape features a series of broken hillocks and undulating high-altitude plateaus, culminating in the 1,672 m Deomali Peak, the highest point in Odisha. The area consists of rolling grass-covered meadows, rocky outcrops and shallow natural depressions that collect seasonal water. Numerous perennial and seasonal streams originate from these elevated slopes, shaping the valleys below. The combination of elevation, slope variation and rock exposure creates a diverse and visually striking mountain landscape.



Eleusine coracana



GEOLOGY, ROCK AND SOIL

Geology

Deomali forms part of the Precambrian Eastern Ghats Mobile Belt, dominated by Khondalite and Charnockite rock groups that define the geological character of the region.

Rock types

Major rock types include Khondalite (garnet-sillimanite-graphite schist), Charnockite (hypersthene-bearing granulite), quartzite, gneiss and granulite, with lateritic cappings on the plateau surfaces.

Minerals

The broader Eastern Ghats region is known for minerals such as bauxite, graphite, garnet, quartz and traces of rare earth elements. In Deomali, lateritic soil deposits and small graphite-bearing rocks are commonly observed.

Soil

Soils include lateritic soils on peaks, red loamy soils along slopes and alluvial deposits in foothill areas. The soils are generally acidic, low in nitrogen, but rich in iron and aluminium oxides.

CLIMATE AND RAINFALL

Climate

The area experiences a cool, temperate-like high-altitude climate with mild summers and cold winters. Frequent fog, strong winds and cloud cover influence the microclimate throughout the year.

Rainfall

Deomali receives an annual rainfall of about 1,600–1,800 mm, mostly during June to September. Upper slopes receive higher moisture inputs through mist and cloud interception.

Temperature

Summer temperatures range from 18–28°C, while winters remain cold at 5–12°C, sometimes dropping lower on the peak. The plateau remains significantly cooler than the surrounding plains.

Humidity

Humidity levels are high during the monsoon (65–85%), moderate during winter and post-monsoon and relatively low during dry months like March and April.



Panoramic view of Deomali hills

PLANT ENUMERATION



Ipomoea parasitica

Floral Diversity of Deomali Hill

A total of 339 plant species belonging to 90 families are recorded from Deomali hill (Proposed Reserved Forest and Tableland), reflecting a rich and varied flora. The vegetation data show a diverse assemblage of plant habits, with herbs forming the largest group (104 species); trees constitute the second-largest group (77 species); shrubs (56 species) and grasses (48 species) represent important intermediate layers of the vegetation. Shrubs contribute to understorey density and ecological stability. Climbers (37 species) add to the structural complexity of the flora, where they rely on trees and shrubs for support. Sedges represented by 8 species mark the presence of specialised microhabitats such as moist slopes, shaded forest interiors and marshy pockets. Ferns (7 species) also indicate humid niches and sheltered environments within the landscape. 2 species of palms are found in the area (Figure 1; Table 1).

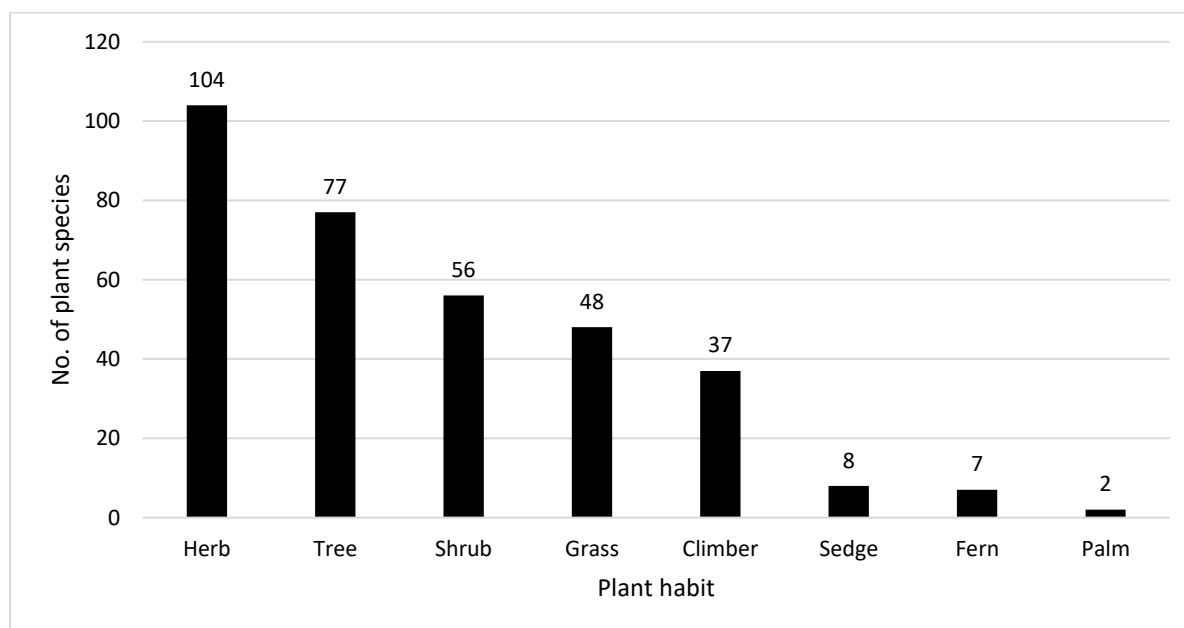


Figure 1: Plant habits of the flora of Deomali hill

Table 1: Flora of PRF of Deomali hill, Koraput Forest Division, Odisha

Plant name	Family	Common name	Habit
<i>Abelmoschus angulosus</i> Wall. ex Wight & Arn. (Plate 2a)	Malvaceae	Wild lady's finger	Shrub
<i>Acacia auriculiformis</i> A.Cunn. ex Benth.	Fabaceae	Australian wattle	Tree
<i>Acacia concinna</i> (Willd.) DC.	Fabaceae	Shikakai	Climbing shrub
<i>Acampe praemorsa</i> (Roxb.) Blatt. & McCann	Orchidaceae	Nodding acampe	Epiphytic orchid
<i>Acer oblongifolium</i> Dippel	Sapindaceae	Himalayan maple	Tree
<i>Acmella paniculata</i> (Wall. ex DC.) R.K.Jansen	Asteraceae	Toothache plant	Herb
<i>Acmella uliginosa</i> (Sw.) Cass.	Asteraceae	Marsh spotflower	Herb

<i>Acrocarpus fraxinifolius</i> Wight & Arn.	Fabaceae	Pink cedar	Tree
<i>Acronychia pedunculata</i> (L.) Miq. (Plate 5a)	Rutaceae	Laka wood	Tree
<i>Adenostemma lavenia</i> (L.) Kuntze	Asteraceae	Lavenia	Herb
<i>Adiantum philippense</i> L.	Pteridaceae	Maidenhair fern	Fern
<i>Aeginetia indica</i> L.	Orobanchaceae	Indian broomrape	Parasitic herb
<i>Aeschynomene aspera</i> L.	Fabaceae	Sholapith plant	Herb
<i>Aeschynomene indica</i> L. (Plate 2b)	Fabaceae	Indian jointvetch	Shrub
<i>Agave americana</i> L.	Asparagaceae	Century plant	Succulent herb
<i>Ageratina adenophora</i> (Spreng.) R.M.King & H.Rob.	Asteraceae	Crofton weed	Shrub
<i>Ageratum conyzoides</i> L.	Asteraceae	Billy goat weed	Herb
<i>Ailanthus excelsa</i> Roxb.	Simaroubaceae	Maharukh	Tree
<i>Albizia procera</i> (Roxb.) Benth.	Fabaceae	White siris	Tree
<i>Alectra avensis</i> (Benth.) Merr. (Plate 1a)	Orobanchaceae	Alectra	Parasitic herb
<i>Alloteropsis cimicina</i> (L.) Stapf	Poaceae	Cockroach grass	Grass
<i>Alstonia venenata</i> R.Br.	Apocynaceae	Poison devil tree	Small tree
<i>Alternanthera ficoidea</i> (L.) P.Beauv.	Amaranthaceae	Fig joyweed	Herb
<i>Alternanthera sessilis</i> (L.) DC.	Amaranthaceae	Sessile joyweed	Herb
<i>Anisomeles indica</i> (L.) Kuntze	Lamiaceae	Indian catmint	Shrub
<i>Apluda mutica</i> L. (Plate 4a)	Poaceae	Mountain rice grass	Grass
<i>Ardisia solanacea</i> Roxb.	Primulaceae	Shoebutton ardisia	Shrub
<i>Arisaema tortuosum</i> (Wall.) Schott	Araceae	Whipcord cobra lily	Herb
<i>Aristida setacea</i> Retz.	Poaceae	Wiregrass	Grass
<i>Arthraxon lancifolius</i> (Trin.) Hochst. (Plate 4b)	Poaceae	Carpet grass	Grass
<i>Artocarpus heterophyllus</i> Lam.	Moraceae	Jackfruit	Tree
<i>Artocarpus lacucha</i> Buch.-Ham.	Moraceae	Monkey jack	Tree
<i>Arundinella pumila</i> (Hochst. ex A. Rich.) Steud. (Plate 4c)	Poaceae	Low arundinella	Grass
<i>Arundo donax</i> L. (Plate 4d)	Poaceae	Giant reed	Grass
<i>Asparagus racemosus</i> Willd. (Plate 3a)	Asparagaceae	Shatavari	Climber

<i>Atylosia scarabaeoides</i> (L.) Benth.	Fabaceae	Showy pigeon pea	Climber
<i>Ayenia herbacea</i> (Roxb.) T.K.Paul	Malvaceae	Ayenia	Herb
<i>Azadirachta indica</i> A.Juss.	Meliaceae	Neem	Tree
<i>Bambusa bambos</i> (L.) Voss	Poaceae	Thorny bamboo	Grass
<i>Bambusa tulda</i> Roxb.	Poaceae	Bengal bamboo	Grass
<i>Barleria cristata</i> L. (Plate 2c)	Acanthaceae	Philippine violet	Shrub
<i>Bergera koenigii</i> L.	Rutaceae	Curry leaf tree	Small tree
<i>Bidens pilosa</i> L. (Plate 1b)	Asteraceae	Spanish needle	Herb
<i>Bixa orellana</i> L.	Bixaceae	Annatto / sinduri	Small tree
<i>Boehmeria macrophylla</i> Hornem. (Plate 2d)	Urticaceae	Large-leaved nettle	Shrub
<i>Boerhavia diffusa</i> L.	Nyctaginaceae	Punarnava	Herb
<i>Bombax ceiba</i> L.	Malvaceae	Silk cotton tree	Tree
<i>Bothriochloa bladhii</i> (Retz.) S.T. Blake (Plate 4e)	Poaceae	Australian bluegrass	Grass
<i>Bothriochloa pertusa</i> (L.) A. Camus	Poaceae	Indian couch grass	Grass
<i>Bridelia retusa</i> (L.) A.Juss.	Phyllanthaceae	Spinous kino tree	Tree
<i>Buchanania lanzan</i> Spreng.	Anacardiaceae	Chironji	Tree
<i>Buchnera hispida</i> Buch.-Ham. ex D.Don (Plate 1c)	Orobanchaceae	Hairy buchnera	Herb
<i>Bulbophyllum crassipes</i> Hook.f.	Orchidaceae	Thick spurred bulb leaf orchid	Epiphytic orchid
<i>Cajanus cajan</i> (L.) Huth (Plate 2e)	Fabaceae	Pigeon pea	Shrub
<i>Callicarpa tomentosa</i> (L.) L. (Plate 5b)	Lamiaceae	Velvet-leaf	Tree
<i>Calotropis gigantea</i> (L.) W.T.Aiton (Plate 2f)	Apocynaceae	Giant milkweed	Shrub
<i>Canscora diffusa</i> (Vahl) R.Br. ex Roem. & Schult.	Gentianaceae	Spreading canscora	Herb
<i>Capillipedium parviflorum</i> (R. Br.) Stapf (Plate 4f)	Poaceae	Scented grass	Grass
<i>Carex baccans</i> Nees	Cyperaceae	Crimson-seeded Sedge	Sedge
<i>Carissa spinarum</i> L.	Apocynaceae	Khira koli	Shrub
<i>Caryota urens</i> L.	Arecaceae	Fishtail palm	Palm
<i>Cassia fistula</i> L.	Fabaceae	Golden shower tree	Tree
<i>Celastrus paniculatus</i> Willd. (Plate 3b)	Celastraceae	Black oil plant	Climber
<i>Celosia argentea</i> L.	Amaranthaceae	Silver cockscomb	Herb

<i>Cenchrus pedicellatus</i> (Trin.) Morrone	Poaceae	Deenanath grass	Grass
<i>Centella asiatica</i> (L.) Urb.	Apiaceae	Gotu kola/ Indian pennywort	Herb
<i>Chamaecrista mimosoides</i> (L.) Greene	Fabaceae	Feather-leaved Cassia	Herb
<i>Cheirostylis parvifolia</i> Lindl.	Orchidaceae	-	Terrestrial orchid
<i>Chloroxylon swietenia</i> DC.	Rutaceae	East Indian satinwood	Tree
<i>Chromolaena odorata</i> (L.) R.M.King & H.Rob.	Asteraceae	Siam weed	Shrub
<i>Chrysopogon aciculatus</i> (Retz.) Trin.	Poaceae	Golden beard grass	Grass
<i>Cinnamomum osmophloeum</i> Kaneh.	Lauraceae	Pseudocinnamomum	Tree
<i>Cipadessa baccifera</i> (Roxb. ex Roth) Miq. (Plate 2g)	Meliaceae	Oriental purpleberry	Shrub
<i>Cissampelos pareira</i> L.	Menispermaceae	Velvetleaf	Climber
<i>Clematis gouriana</i> Roxb. ex DC. (Plate 3c)	Ranunculaceae	Garland clematis	Climber
<i>Clerodendrum chinense</i> (Osbeck) Mabb.	Lamiaceae	Chinese glory bower	Shrub
<i>Clerodendrum infortunatum</i> L.	Lamiaceae	Hill glory bower	Shrub
<i>Coffea arabica</i> L.	Rubiaceae	Coffee	Shrub
<i>Coffea benghalensis</i> B.Heyne ex Roth (Plate 2h)	Rubiaceae	Bengal coffee	Shrub
<i>Colebrookea oppositifolia</i> Sm.	Lamiaceae	Indian squirrel tail	Shrub
<i>Coleus strobilifer</i> (Roxb.) A.J.Paton	Lamiaceae	Thick leaf lavender	Herb
<i>Colocasia esculenta</i> (L.) Schott	Araceae	Taro	Herb
<i>Combretum roxburghii</i> Spreng. (Plate 3d)	Combretaceae	White combretum	Woody climber
<i>Corymbia citriodora</i> (Hook.) K.D.Hill & L.A.S.Johnson	Myrtaceae	Lemon-scented gum	Tree
<i>Cosmos caudatus</i> Kunth	Asteraceae	Wild cosmos	Herb
<i>Crassocephalum crepidioides</i> (Benth.) S.Moore	Asteraceae	Redflower ragleaf	Herb
<i>Crotalaria pallida</i> Aiton	Fabaceae	Smooth rattlepod	Shrub
<i>Cryptolepis buchananii</i> R.Br. ex Roem. & Schult.	Apocynaceae	Indian sarsaparilla	Climber
<i>Cuphea carthagenensis</i> (Jacq.) J.F.Macbr. (Plate 1d)	Lythraceae	Tarweed cuphea	Herb

<i>Curcuma longa</i> L.	Zingiberaceae	Turmeric	Herb
<i>Cyanotis tuberosa</i> (Roxb.) Schult. & Schult.f.	Commelinaceae	Pussy's ears	Herb
<i>Cyanthillium cinereum</i> (L.) H.Rob.	Asteraceae	Ash-coloured fleabane	Herb
<i>Cymbalaria muralis</i> G.Gaertn., B.Mey. & Scherb.	Plantaginaceae	Ivy-leaved toadflax	Herb
<i>Cymbopogon citratus</i> (DC.) Stapf	Poaceae	Lemon grass	Grass
<i>Cynodon dactylon</i> (L.) Pers.	Poaceae	Bermuda grass	Grass
<i>Cynoglossum lanceolatum</i> Forssk.	Boraginaceae	Lanceleaf forget-me-not	Shrub
<i>Cyperus albescens</i> (Steud.) Larridon & Govaerts	Cyperaceae	-	Sedge
<i>Cyperus cuspidatus</i> Kunth	Cyperaceae	Coastal plain flatsedge	Sedge
<i>Cyperus flavidus</i> Retz.	Cyperaceae	Yellow flatsedge	Sedge
<i>Cyperus pilosus</i> Vahl	Cyperaceae	Hairy flatsedge	Sedge
<i>Cyrtococcum oxyphyllum</i> (Steud.) A. Camus	Poaceae	Shining panic grass	Grass
<i>Dalbergia lanceolaria</i> L.f.	Fabaceae	Lance-leaf rosewood	Tree
<i>Dalbergia latifolia</i> Roxb.	Fabaceae	Indian rosewood	Tree
<i>Dalbergia volubilis</i> Roxb.	Fabaceae	Climbing rosewood	Climber
<i>Debregeasia longifolia</i> (Burm.f.) Wedd. (Plate 5c)	Urticaceae	Orange wild rhea	Tree
<i>Dendrobium formosum</i> Roxb. ex Lindl.	Orchidaceae	Beautiful dendrobium	Epiphytic orchid
<i>Dichrocephala integrifolia</i> (L.f.) Kuntze	Asteraceae	Buttonweed	Herb
<i>Digitaria bicornis</i> (Lam.) Roem. & Schult. (Plate 4g)	Poaceae	Forked crabgrass	Grass
<i>Digitaria ciliaris</i> (Retz.) Koeler	Poaceae	Southern crabgrass	Grass
<i>Digitaria longiflora</i> (Retz.) Pers.	Poaceae	Long-flowered crabgrass	Grass
<i>Dimeria ornithopoda</i> Trin.	Poaceae	Bird-foot grass	Grass
<i>Dioscorea bulbifera</i> L.	Dioscoreaceae	Air potato	Climber
<i>Dioscorea esculenta</i> (Lour.) Burkill	Dioscoreaceae	Lesser yam	Climber
<i>Dioscorea pubera</i> Blume	Dioscoreaceae	Wild yam	Climber
<i>Diospyros montana</i> Roxb.	Ebenaceae	Mountain ebony	Tree
<i>Diospyros sylvatica</i> Roxb.	Ebenaceae	Forest ebony	Tree

<i>Diplocyclos palmatus</i> (L.) C.Jeffrey (Plate 3e)	Cucurbitaceae	Lollipop climber	Climber
<i>Disporum cantoniense</i> (Lour.) Merr.	Colchicaceae	Fairy bells	Herb
<i>Dopatrium lobelioides</i> (Retz.) Benth. (Plate 1e)	Plantaginaceae	Lobelia like dopatrium	Herb
<i>Drimia indica</i> (Roxb.) Jessop	Asparagaceae	Indian squill	Herb
<i>Drosera burmanni</i> Vahl	Droseraceae	Tropical sundew	Insectivorous herb
<i>Drosera indica</i> L.	Droseraceae	Indian sundew	Insectivorous herb
<i>Drosera peltata</i> Thunb. (Plate 1f)	Droseraceae	Shield sundew	Insectivorous herb
<i>Dumasia villosa</i> DC. (Plate 3f)	Fabaceae	Woolly dumasia	Climber
<i>Echinochloa colona</i> (L.) Link	Poaceae	Jungle rice	Grass
<i>Ehretia aspera</i> Willd.	Boraginaceae	Chalktree	Small tree
<i>Elephantopus scaber</i> L.	Asteraceae	Elephant's foot	Herb
<i>Eleusine coracana</i> (L.) Gaertn.	Poaceae	Finger millet	Grass
<i>Eleusine indica</i> (L.) Gaertn. (Plate 4h)	Poaceae	Goosegrass	Grass
<i>Emilia sonchifolia</i> (L.) DC.	Asteraceae	Lilac tasselflower	Herb
<i>Eragrostis ciliaris</i> (L.) R. Br.	Poaceae	Gopher grass	Grass
<i>Eragrostis pilosa</i> (L.) P. Beauv.	Poaceae	Indian lovegrass	Grass
<i>Eragrostis unioides</i> (Retz.) Nees ex Steud.	Poaceae	Chinese lovegrass	Grass
<i>Erigeron canadensis</i> L.	Asteraceae	Canadian fleabane	Herb
<i>Eriocaulon quinquangulare</i> L.	Eriocaulaceae	Pipewort	Herb
<i>Erythrina variegata</i> L.	Fabaceae	Indian coral tree	Tree
<i>Eucalyptus camaldulensis</i> Dehnh.	Myrtaceae	River red gum	Tree
<i>Eucalyptus globulus</i> Labill.	Myrtaceae	Blue gum	Tree
<i>Eucalyptus tereticornis</i> Sm.	Myrtaceae	Mysore gum	Tree
<i>Euphorbia nivulia</i> Buch.-Ham.	Euphorbiaceae	Leafless milk hedge	Small tree
<i>Evolvulus alsinoides</i> (L.) L.	Convolvulaceae	Slender dwarf morning glory	Herb
<i>Ficus auriculata</i> Lour. (Plate 5d)	Moraceae	Roxburgh fig	Tree
<i>Ficus benghalensis</i> L.	Moraceae	Banyan tree	Tree
<i>Ficus benjamina</i> L.	Moraceae	Weeping fig	Tree
<i>Ficus hispida</i> L.f.	Moraceae	Hairy fig	Small tree
<i>Ficus palmata</i> Forssk. (Plate 5 e)	Moraceae	Wild fig	Tree

<i>Ficus racemosa</i> L. (Plate 5f)	Moraceae	Cluster fig	Tree
<i>Ficus religiosa</i> L.	Moraceae	Peepal tree	Tree
<i>Ficus semicordata</i> Buch.-Ham. ex Sm.	Moraceae	Drooping fig	Tree
<i>Ficus virens</i> Aiton	Moraceae	White fig	Tree
<i>Flemingia macrophylla</i> (Willd.) Kuntze ex Merr.	Fabaceae	Flemingia	Shrub
<i>Floscopa scandens</i> Lour. (Plate 1g)	Commelinaceae	Climbing floscopa	Herb
<i>Garuga pinnata</i> Roxb.	Burseraceae	Wild almond tree	Tree
<i>Gmelina arborea</i> Roxb. ex Sm.	Lamiaceae	Gmelina/White teak	Tree
<i>Gnetum edule</i> (Willd.) Blume (Plate 3g)	Gnetaceae	Joint fir	Climber
<i>Gonostegia pentandra</i> (Roxb.) Miq. (Plate 2i)	Urticaceae	Narrow-leaf pouzol's bush	Shrub
<i>Gouania leptostachya</i> DC.	Rhamnaceae	Whip vine	Climber
<i>Grevillea robusta</i> A.Cunn. ex R.Br.	Proteaceae	Silver oak	Tree
<i>Grewia hirsuta</i> Vahl (Plate 5g)	Malvaceae	Hairy grewia	Small tree
<i>Grona triflora</i> (L.) H.Ohashi & K.Ohashi	Fabaceae	Creeping tick trefoil	Herb
<i>Guizotia abyssinica</i> (L.f.) Cass.	Asteraceae	Niger seed	Herb
<i>Gymnosphaera gigantea</i> (Wall. ex Hook.) S.Y.Dong	Cyatheaceae	Giant tree fern	Tree fern
<i>Gymnosporia rothiana</i> (Walp.) M.A.Lawson (Plate 5h)	Celastraceae	Roth's spiny tree	Small tree
<i>Hemidesmus indicus</i> (L.) R.Br.	Apocynaceae	Indian sarsaparilla	Climber
<i>Hemigraphis latebrosa</i> (B.Heyne ex Roth) Nees	Acanthaceae	Shade loving hemigraphis	Herb
<i>Hemionitis arifolia</i> (Burm.f.) T.Moore	Pteridaceae	Heartleaf fern	Fern
<i>Heteropogon contortus</i> (L.) P.Beauv. ex Roem. & Schult. (Plate 4i)	Poaceae	Tanglehead grass	Grass
<i>Holarrhena pubescens</i> Wall. ex G.Don	Apocynaceae	Kurchi tree	Tree
<i>Homalium napaulense</i> (DC.) Benth.	Salicaceae	Nepalese homalium	Tree
<i>Hybanthus enneaspermus</i> (L.) F.Muell.	Violaceae	Pink lady sleeper	Herb
<i>Hypericum gaitii</i> Haines	Hypericaceae	Gaiti's St. John's wort	Shrub

<i>Hypericum japonicum</i> Thunb.	Hypericaceae	Japanese St. John's wort	Herb
<i>Ichnocarpus frutescens</i> (L.) W.T.Aiton (Plate 3h)	Apocynaceae	Black creeper	Climber
<i>Indigofera cassioides</i> Rottler ex DC.	Fabaceae	Cassia indigo	Shrub
<i>Indigofera zollingeriana</i> Miq.	Fabaceae	Zollinger's indigo	Shrub
<i>Ipomoea hederifolia</i> L.	Convolvulaceae	Scarlet morning glory	Climber
<i>Ipomoea parasitica</i> (Kunth) G.Don (Plate 3i)	Convolvulaceae	Parasitic morning glory	Climber
<i>Ipomoea wightii</i> (Wall.) Choisy (Plate 3j)	Convolvulaceae	Wight's morning glory	Climber
<i>Isachne globosa</i> (Thunb.) Kuntze (Plate 4j)	Poaceae	Globe isachne	Grass
<i>Ischaemum rugosum</i> Salisb.	Poaceae	Wrinkled ischaemum	Grass
<i>Isodon coetsa</i> (Buch.-Ham. ex D.Don) Kudô	Lamiaceae	Blue isodon	Shrub
<i>Juncus prismatocarpus</i> R.Br.	Juncaceae	Prismatic rush	Herb
<i>Kydia calycina</i> Roxb.	Malvaceae	Kydia	Tree
<i>Lamium album</i> subsp. <i>crinitum</i> (Montbret & Aucher ex Benth.) Mennema	Lamiaceae	White dead nettle	Herb
<i>Lannea coromandelica</i> (Houtt.) Merr.	Anacardiaceae	Indian ash tree	Tree
<i>Lantana camara</i> L.	Verbenaceae	Lantana	Shrub
<i>Leea indica</i> (Burm.f.) Merr.	Vitaceae	Bandicoot berry	Shrub
<i>Leonotis nepetifolia</i> (L.) R.Br.	Lamiaceae	Lion's ear	Herb
<i>Leucas montana</i> (Roth) Spreng.	Lamiaceae	Mountain leucas	Herb
<i>Limnophila aromatica</i> (Lam.) Merr. (Plate 1h)	Plantaginaceae	Rice paddy herb	Herb
<i>Lippia javanica</i> (Burm.f.) Spreng.	Verbenaceae	Fever tea	Shrub
<i>Litsea glutinosa</i> (Lour.) C.B.Rob.	Lauraceae	Indian laurel	Tree
<i>Lobelia heyneana</i> Schult.	Campanulaceae	Heyne's lobelia	Herb
<i>Ludwigia perennis</i> L.	Onagraceae	Perennial water primrose	Herb
<i>Luisia zeylanica</i> Lindl.	Orchidaceae	Luisia orchid	Epiphytic orchid
<i>Lycopodiella cernua</i> (L.) Pic.Serm.	Lycopodiaceae	Clubmoss	Fern

<i>Macaranga peltata</i> (Roxb.) Müll.Arg.	Euphorbiaceae	Macaranga	Tree
<i>Mallotus philippensis</i> (Lam.) Müll.Arg.	Euphorbiaceae	Kamala tree	Tree
<i>Mangifera indica</i> L.	Anacardiaceae	Mango	Tree
<i>Mappia nimmoniana</i> (J.Graham) Byng & Stull (Plate 5i)	Icacinaceae	Narkya	Tree
<i>Mecardonia procumbens</i> (Mill.) Small	Plantaginaceae	Baby jump up	Herb
<i>Melia azedarach</i> L.	Meliaceae	Chinaberry	Tree
<i>Melinis repens</i> (Willd.) Zizka (Plate 4k)	Poaceae	Natal red-top grass	Grass
<i>Mesosphaerum suaveolens</i> (L.) Kuntze	Lamiaceae	Holy basil bush / Stinking basil	Shrub
<i>Mikania micrantha</i> Kunth	Asteraceae	Mile-a-minute weed	Climber
<i>Millettia extensa</i> (Benth.) Benth. ex Baker	Fabaceae	Large-leaf pongam creeper	Climber
<i>Mimosa pudica</i> L.	Fabaceae	Touch-me-not	Herb
<i>Mitracarpus hirtus</i> (L.) DC.	Rubiaceae	Small square weed	Herb
<i>Morinda pubescens</i> Sm.	Rubiaceae	Indian mulberry	Tree
<i>Moullava digyna</i> (Rottler) Gagnon & G.P.Lewis	Fabaceae	Soap pod	Climber
<i>Musa</i> × <i>paradisiaca</i> L.	Musaceae	Banana	Tree like herb
<i>Neanotis montholonii</i> (Hook.f.) W.H.Lewis	Rubiaceae	Montholon's neanotis	Shrub
<i>Neonotonia wightii</i> (Wight & Arn.) J.A.Lackey	Fabaceae	Siratro	Climber
<i>Nervilia plicata</i> (Andrews) Schltr.	Orchidaceae	Ribbed nervilia	Terrestrial orchid
<i>Nicoteba betonica</i> (L.) Lindau	Acanthaceae	Betonica acanthus	Shrub
<i>Olax scandens</i> Roxb.	Olacaceae	Climbing olax	Small tree
<i>Oldenlandia corymbosa</i> L.	Rubiaceae	Flat-top Mille Graines	Herb
<i>Ophioglossum reticulatum</i> L.	Ophioglossaceae	Adder's tongue fern	Herb
<i>Oplismenus compositus</i> (L.) P. Beauv.	Poaceae	Basketgrass	Grass
<i>Oreocnide integrifolia</i> (Gaudich.) Miq. (Plate 5j)	Urticaceae	Mountain mulberry	Tree
<i>Oroxylum indicum</i> (L.) Kurz (Plate 5k)	Bignoniaceae	Indian trumpet tree	Tree

<i>Osbeckia stellata</i> Buch.-Ham. ex D.Don (Plate 2j)	Melastomataceae	Starry osbeckia	Shrub
<i>Osyris lanceolata</i> Hochst. & Steud. (Plate 5l)	Santalaceae	African sandalwood	Small tree
<i>Ougeinia oojeinensis</i> (Roxb.) Hochr.	Fabaceae	Sandan	Tree
<i>Oureta lanata</i> (L.) Kuntze	Amaranthaceae	Lavana	Herb
<i>Oxalis corniculata</i> L.	Oxalidaceae	Creeping wood sorrel	Herb
<i>Pachygone laurifolia</i> (DC.) L.Lian & Wei Wang	Menispermaceae	Laurel leaved snail tree	Climber
<i>Panicum repens</i> L.	Poaceae	Torpedo grass	Grass
<i>Panicum sumatrense</i> Roth	Poaceae	Little millet	Grass
<i>Paspalum scrobiculatum</i> L.	Poaceae	Kodo millet	Grass
<i>Peperomia tetraphylla</i> (G.Forst.) Hook. & Arn. (Plate 1i)	Piperaceae	Four-leaved Peperomia	Herb
<i>Pergularia daemia</i> (Forssk.) Chiov.	Apocynaceae	Uturana	Climber
<i>Persicaria chinensis</i> (L.) H.Gross (Plate 2k)	Polygonaceae	Chinese knotweed	Shrub
<i>Persicaria pubescens</i> (Blume) H.Hara	Polygonaceae	Drooping knotweed	Herb
<i>Petalidium barlerioides</i> (B.Heyne ex Roth) Nees	Acanthaceae	Nail dye	Shrub
<i>Phanera roxburghiana</i> (Voigt) Bandyop., Anand Kumar & Chakrab.	Fabaceae	Roxburgh's bauhinia	Tree
<i>Phanera vahlii</i> (Wight & Arn.) Benth. (Plate 3k)	Fabaceae	Maloo creeper	Climber
<i>Phaulopsis imbricata</i> (Forssk.) Sweet (Plate 1j)	Acanthaceae	Imbricate phaulopsis	Herb
<i>Phoenix acaulis</i> Roxb.	Aracaceae	Stemless date palm	Palm
<i>Phyllanthus lanceolarius</i> (Roxb.) Müll.Arg.	Phyllanthaceae	Cup-leaf phyllanthus	Tree
<i>Pimpinella heyneana</i> (DC.) Benth. & Hook.f. (Plate 1k)	Apiaceae	Indian anise	Herb
<i>Piper nigrum</i> L.	Piperaceae	Black pepper	Climber
<i>Pleurolobus gangeticus</i> (L.) J.St.-Hil. ex H.Ohashi & K.Ohashi	Fabaceae	Ganges pea	Herb
<i>Pogonatherum crinitum</i> (Thunb.) Kunth (Plate 4l)	Poaceae	Bristlegrass	Grass

<i>Pogostemon auricularius</i> (L.) Hassk.	Lamiaceae	East-himalayan shrub-mint	Shrub
<i>Pogostemon quadrifolius</i> (Benth.) F.Muell.	Lamiaceae	Four-leaf Pogostemon	Shrub
<i>Polytrias indica</i> (Houtt.) Veldkamp	Poaceae	Indian polytrias grass	Grass
<i>Pseudognaphalium canescens</i> (DC.) Anderb. (Plate 1l)	Asteraceae	Cudweed	Herb
<i>Psidium guajava</i> L.	Myrtaceae	Guava	Tree
<i>Pterospermum xylocarpum</i> (Gaertn.) Oken	Malvaceae	Bayur tree	Tree
<i>Pyrrosia glabra</i> (Desv.) Fraser-Jenk.	Polypodiaceae	Rusty felt fern	Epiphytic fern
<i>Pyrrosia lanceolata</i> (L.) Farw.	Polypodiaceae	Lanceolate felt fern	Epiphytic fern
<i>Rauvolfia tetraphylla</i> L.	Apocynaceae	Devil pepper	Shrub
<i>Rhamphicarpa longiflora</i> (Arn.) Benth.	Orobanchaceae	Tutari	Herb
<i>Richardia scabra</i> L.	Rubiaceae	Rough mexican clover	Herb
<i>Ricinus communis</i> L.	Euphorbiaceae	Castor plant	Shrub
<i>Rostellularia procumbens</i> (L.) Nees	Acanthaceae	Prostrate rostellularia	Herb
<i>Rothea serrata</i> (L.) Steane & Mabb.	Lamiaceae	Blue fountain bush	Shrub
<i>Rubia cordifolia</i> L.	Rubiaceae	Indian madder	Climber
<i>Rubus ellipticus</i> Sm. (Plate 2l)	Rosaceae	Golden himalayan raspberry	Shrub
<i>Rubus niveus</i> Thunb. (Plate 2m)	Rosaceae	Mysore raspberry	Shrub
<i>Rungia pectinata</i> (L.) Nees	Acanthaceae	Pectinate rungia	Herb
<i>Saccharum spontaneum</i> L.	Poaceae	Wild sugarcane	Grass
<i>Sacciolepis indica</i> (L.) Chase	Poaceae	Indian cupscale grass	Grass
<i>Salvia misella</i> Kunth (Plate 1m)	Lamiaceae	Blue sage	Herb
<i>Santalum album</i> L.	Santalaceae	Sandalwood	Tree
<i>Schefflera venulosa</i> (Wight & Arn.) Harms	Araliaceae	Dwarf umbrella tree	Climbing shrub
<i>Schleichera oleosa</i> (Lour.) Oken	Sapindaceae	Kusum tree	Tree
<i>Schoenoplectiella juncoides</i> (Roxb.) Lye	Cyperaceae	Ricefield bulrush	Sedge
<i>Scindapsus officinalis</i> (Roxb.) Schott	Araceae	Gajpipul	Climber

<i>Scleria levis</i> Retz.	Cyperaceae	Smooth nutrush	Sedge
<i>Scleria terrestris</i> (L.) Fassett	Cyperaceae	Nut rush	Sedge
<i>Scoparia dulcis</i> L.	Plantaginaceae	Sweet broomweed	Herb
<i>Scurrula cordifolia</i> (Wall.) G.Don	Loranthaceae	Leafy mistletoe	Parasitic shrub
<i>Scutellaria discolor</i> Wall. ex Benth.	Lamiaceae	Bicolor skullcap	Shrub
<i>Senegalia pennata</i> (L.) Maslin	Fabaceae	Climbing wattle	Climber
<i>Senna hirsuta</i> (L.) H.S.Irwin & Barneby	Fabaceae	Woolly senna	Shrub
<i>Setaria flavida</i> (Retz.) Veldkamp	Poaceae	Yellow bristlegrass	Grass
<i>Setaria intermedia</i> Roem. & Schult. (Plate 4m)	Poaceae	Intermediate bristlegrass	Grass
<i>Setaria italica</i> (L.) P. Beauv.	Poaceae	Foxtail millet	Grass
<i>Setaria pumila</i> (Poir.) Roem. & Schult.	Poaceae	Yellow foxtail	Grass
<i>Setaria viridis</i> (L.) P. Beauv.	Poaceae	Green foxtail	Grass
<i>Sida acuta</i> Burm.f.	Malvaceae	Common wireweed	Herb
<i>Sida cordata</i> (Burm.f.) Borss.Waalk.	Malvaceae	Heartleaf sida	Herb
<i>Sigesbeckia orientalis</i> L.	Asteraceae	St. Paul's wort	Herb
<i>Simarouba glauca</i> DC.	Simaroubaceae	Paradise-tree	Tree
<i>Smilax zeylanica</i> L. (Plate 3l)	Smilacaceae	Ceylon greenbrier	Climber
<i>Smithia ciliata</i> Royle	Fabaceae	Fringed smithia	Herb
<i>Smithia conferta</i> Sm.	Fabaceae	Yellow bladderwort	Herb
<i>Smitinandia micrantha</i> (Lindl.) Holttum	Orchidaceae	Small flowered smitinandia	Epiphytic orchid
<i>Solanum erianthum</i> D.Don (Plate 5m)	Solanaceae	Big eggplant	Small tree
<i>Solanum torvum</i> Sw.	Solanaceae	Turkey berry	Shrub
<i>Solanum viarum</i> Dunal	Solanaceae	Tropical soda apple	Shrub
<i>Sonchus oleraceus</i> L.	Asteraceae	Common sowthistle	Herb
<i>Sorghum bicolor</i> (L.) Moench	Poaceae	Sorghum	Grass
<i>Sorghum halepense</i> (L.) Pers.	Poaceae	Johnson grass	Grass
<i>Spermacoce articularis</i> L.f.	Rubiaceae	Jointed buttonweed	Herb
<i>Spermacoce ocymoides</i> Burm.f.	Rubiaceae	Wild buttonweed	Herb
<i>Spermadictyon suaveolens</i> Roxb. (Plate 2n)	Rubiaceae	Sweet spermadictyon	Shrub
<i>Sporobolus diandrus</i> (Retz.) P. Beauv.	Poaceae	Dropseed grass	Grass
<i>Stachytarpheta jamaicensis</i> (L.) Vahl	Verbenaceae	Blue snakeweed	Herb

<i>Stephania japonica</i> (Thunb.) Miers (Plate 3m)	Menispermaceae	Snake vine	Climber
<i>Strobilanthes pulneyensis</i> C.B.Clarke	Acanthaceae	Palani coneflower	Shrub
<i>Swertia angustifolia</i> Buch.-Ham. ex D.Don (Plate 1n)	Gentianaceae	Narrow-leaved swertia	Herb
<i>Synedrella nodiflora</i> (L.) Gaertn.	Asteraceae	Node-flower	Herb
<i>Syzygium cumini</i> (L.) Skeels	Myrtaceae	Jamun	Tree
<i>Syzygium jambos</i> (L.) Alston (Plate 5n)	Myrtaceae	Rose apple	Tree
<i>Terminalia bellirica</i> (Gaertn.) Roxb.	Combretaceae	Baheda	Tree
<i>Terminalia chebula</i> Retz. (Plate 5o)	Combretaceae	Harida	Tree
<i>Thalictrum foliolosum</i> DC.	Ranunculaceae	Meadow rue	Herb
<i>Thelypteris dentata</i> (Forssk.) E.P.St.John	Aspleniaceae	Downy shield fern	Fern
<i>Themeda quadrivalvis</i> (L.) Kuntze (Plate 4n)	Poaceae	African grass	Grass
<i>Thunbergia fragrans</i> Roxb. (Plate 3n)	Acanthaceae	White lady's flower	Climber
<i>Thysanolaena latifolia</i> (Roxb. ex Hornem.) Honda (Plate 4o)	Poaceae	Broom grass	Grass
<i>Tiliacora acuminata</i> (Lam.) Miers	Menispermaceae	Indian moonseed	Climber
<i>Torenia anagallis</i> (Burm.f.) Wanner, W.R.Barker & Y.S.Liang	Linderniaceae	Bluewings	Herb
<i>Trema orientale</i> (L.) Blume	Cannabaceae	Charcoal tree	Tree
<i>Trichosanthes tricuspidata</i> Lour. (Plate 3o)	Cucurbitaceae	Pointed gourd creeper	Climber
<i>Trigastrotheca pentaphylla</i> (L.) Thulin	Molluginaceae	Pentapetes	Shrub
<i>Triumfetta pilosa</i> Roth	Malvaceae	Hairy triumfetta	Herb
<i>Urena lobata</i> L.	Malvaceae	Caesar weed	Shrub
<i>Urena lobata</i> subsp. <i>sinuata</i> (L.) Borss.Waalk.	Malvaceae	Caesar weed	Shrub
<i>Utricularia bifida</i> L.	Lentibulariaceae	Yellow bladderwort	Insectivorous herb
<i>Uvaria hamiltonii</i> Hook.f. & Thomson	Annonaceae	Wild custard apple	Climber
<i>Vanda tessellata</i> (Roxb.) Hook. ex G.Don	Orchidaceae	Spotted Vanda orchid	Epiphytic orchid

<i>Vanda testacea</i> (Lindl.) Rehb.f.	Orchidaceae	Testacea Vanda orchid	Epiphytic orchid
<i>Vicoa indica</i> (L.) DC.	Asteraceae	Indian vicoa	Herb
<i>Viscum monoicum</i> Roxb. ex DC.	Santalaceae	Mistletoe	Parasitic shrub
<i>Vitex altissima</i> L.f.	Lamiaceae	Tall chaste tree	Tree
<i>Wahlenbergia erecta</i> (Roth ex Schult.) Tuyn	Campanulaceae	Erect dentella	Herb
<i>Waltheria indica</i> L.	Malvaceae	Sleepy morning	Herb
<i>Wendlandia thyrsoides</i> (Roth) Steud.	Rubiaceae	Mountain wendlandia	Tree
<i>Woodfordia fruticosa</i> (L.) Kurz	Lythraceae	Fire flame bush	Shrub
<i>Youngia japonica</i> (L.) DC. (Plate 1o)	Asteraceae	Japanese hawkweed	Herb
<i>Zanthoxylum armatum</i> DC.	Rutaceae	Indian prickly ash	Tree
<i>Zingiber cernuum</i> Dalzell	Zingiberaceae	Curved-stem ginger	Herb
<i>Zingiber roseum</i> (Roxb.) Roscoe	Zingiberaceae	Pink ginger	Herb
<i>Ziziphus rugosa</i> Lam.	Rhamnaceae	Wild jujube	Climbing shrub
<i>Zornia gibbosa</i> Span.	Fabaceae	Zornia	Herb

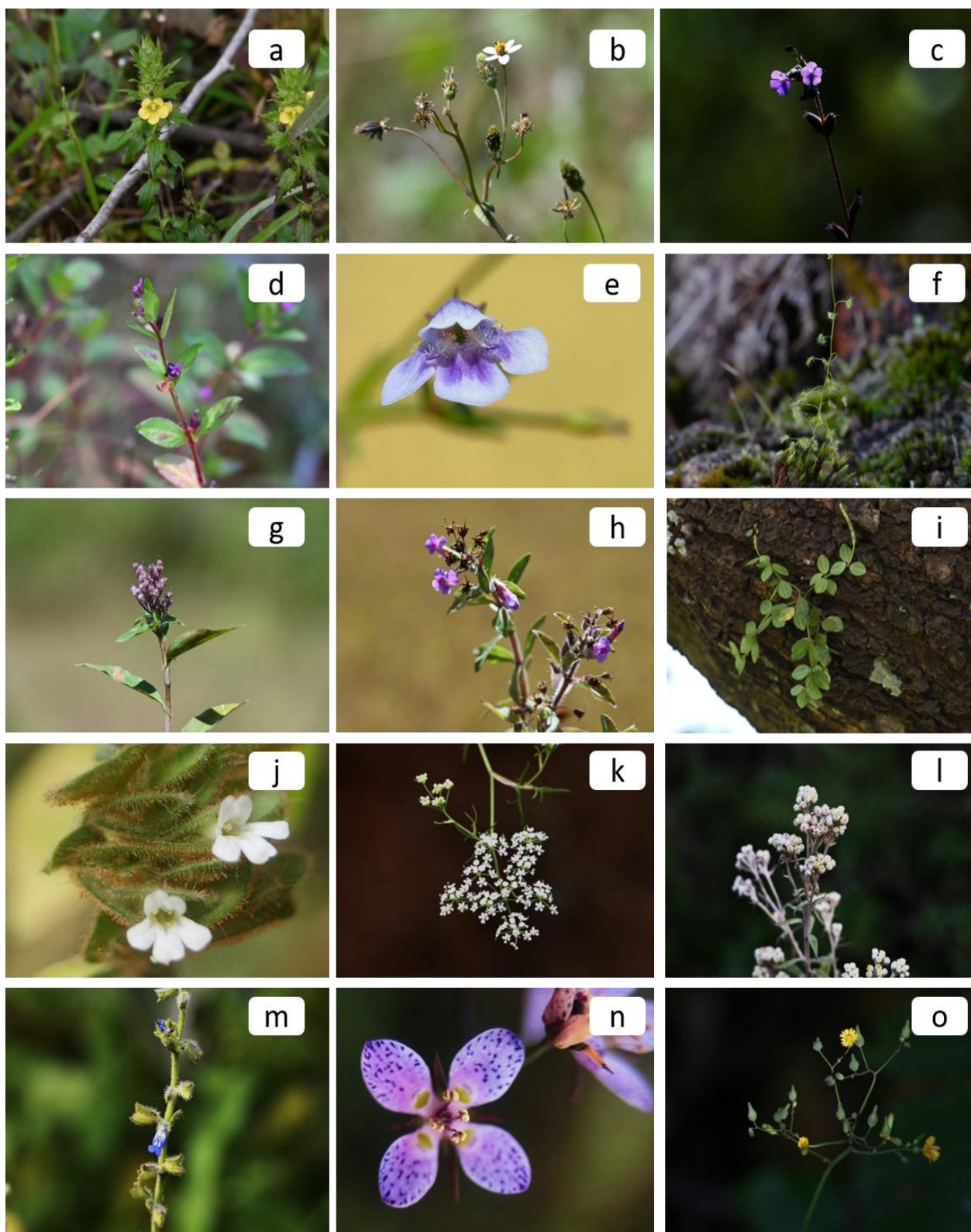


Plate 1: Some herbs in Deomali hill: a) *Alectra avensis*, b) *Bidens pilosa*, c) *Buchnera hispida*, d) *Cuphea carthagenensis*, e) *Dopatrium lobelioides*, f) *Drosera peltata*, g) *Floscopa scandens*, h) *Limnophila aromatica*, i) *Peperomia tetraphylla*, j) *Phaulopsis imbricata*, k) *Pimpinella heyneana*, l) *Pseudognaphalium canescens*, m) *Salvia misella*, n) *Swertia angustifolia*, o) *Youngia japonica*

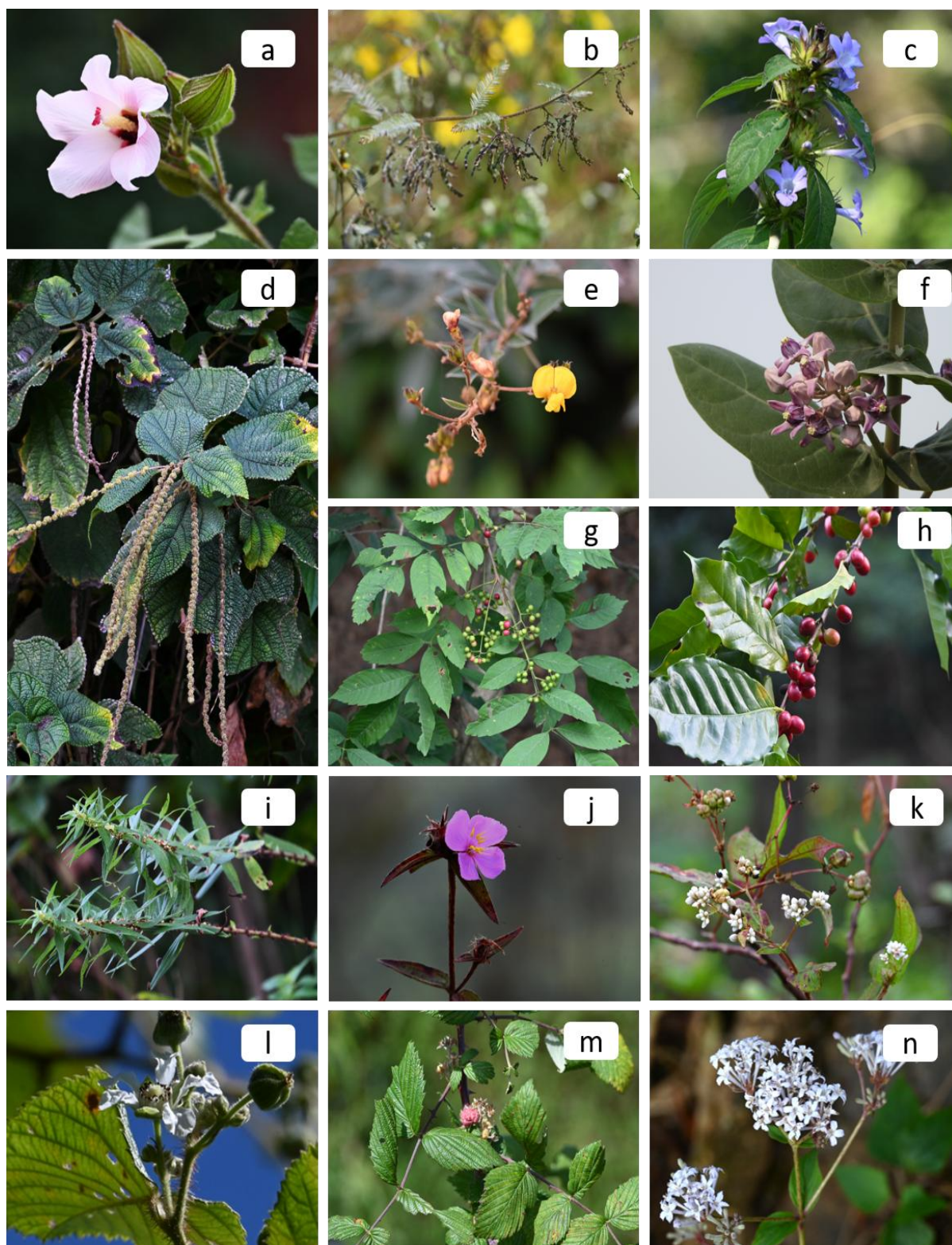


Plate 2: Some shrubs in Deomali hill: a) *Abelmoschus angulosus*, b) *Aeschynomene indica*, c) *Barleria cristata*, d) *Boehmeria macrophylla*, e) *Cajanus cajan*, f) *Calotropis gigantea*, g) *Cipadessa baccifera*, h) *Coffea benghalensis*, i) *Gonostegia pentandra*, j) *Osbeckia stellata*, k) *Persicaria chinensis*, l) *Rubus ellipticus*, m) *Rubus niveus*, n) *Spermatoclyon suaveolens*

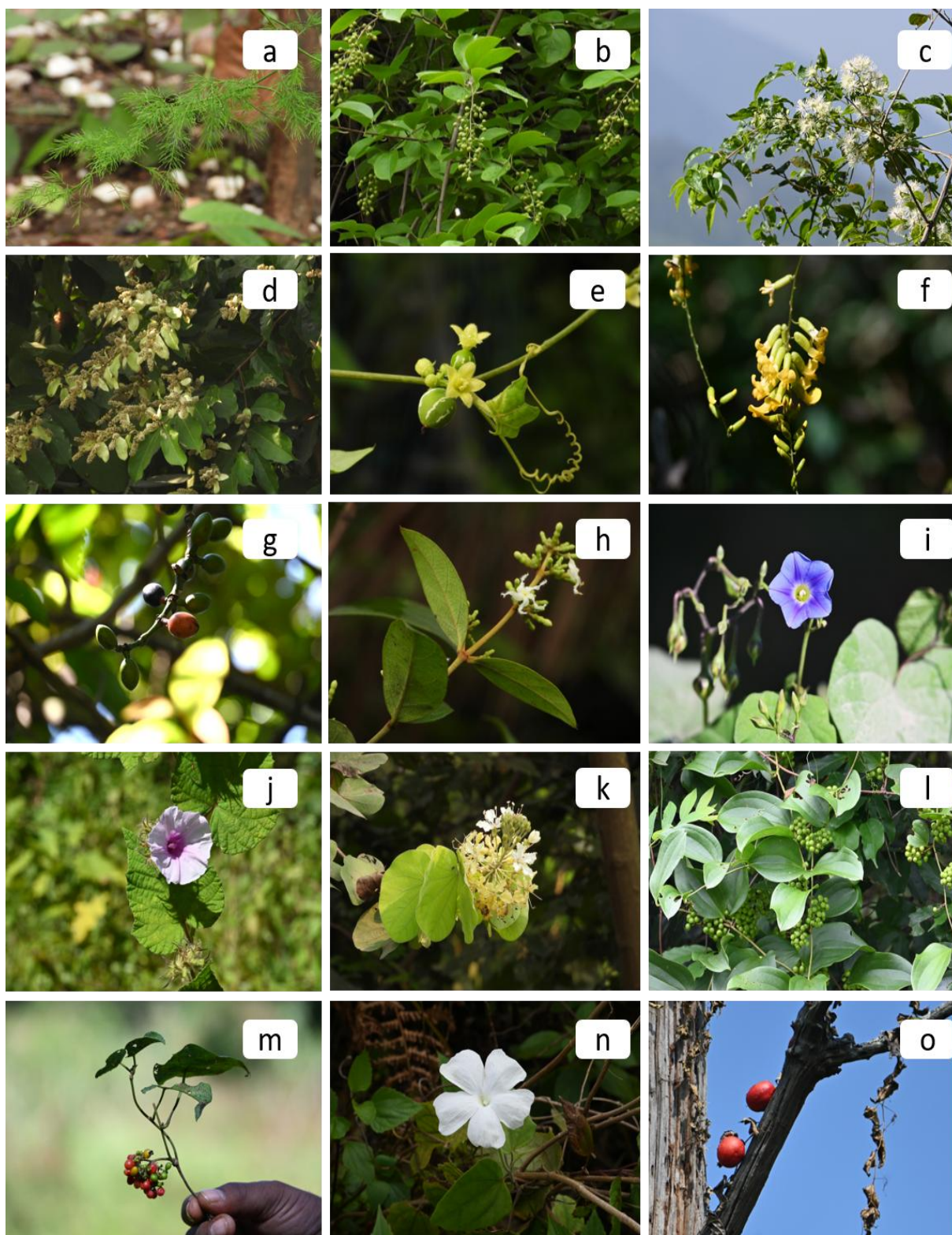


Plate 3: Some climbers in Deomali hill: a) *Asparagus racemosus*, b) *Celastrus paniculatus*, c) *Clematis gouriana*, d) *Combretum roxburghii*, e) *Diplocyclos palmatus*, f) *Dumasia villosa*, g) *Gnetum ula*, h) *Ichnocarpus frutescens*, i) *Ipomoea parasitica*, j) *Ipomoea wightii*, k) *Phanera vahlii*, l) *Smilax zeylanica*, m) *Stephania japonica*, n) *Thunbergia fragrans*, o) *Trichosanthes tricuspidata*



Plate 4: Some grasses in Deomali hill: a) *Apluda mutica*, b) *Arthraxon lancifolius*, c) *Arundinella pumila*, d) *Arundo donax*, e) *Bothriochloa bladhii*, f) *Capillipedium parviflorum*, g) *Digitaria bicornis*, h) *Eleusine indica*, i) *Heteropogon contortus*, j) *Isachne globosa*, k) *Melinis repens*, l) *Pogonatherum crinitum*, m) *Setaria intermedia*, n) *Themeda quadrivalvis*, o) *Thysanolaena latifolia*

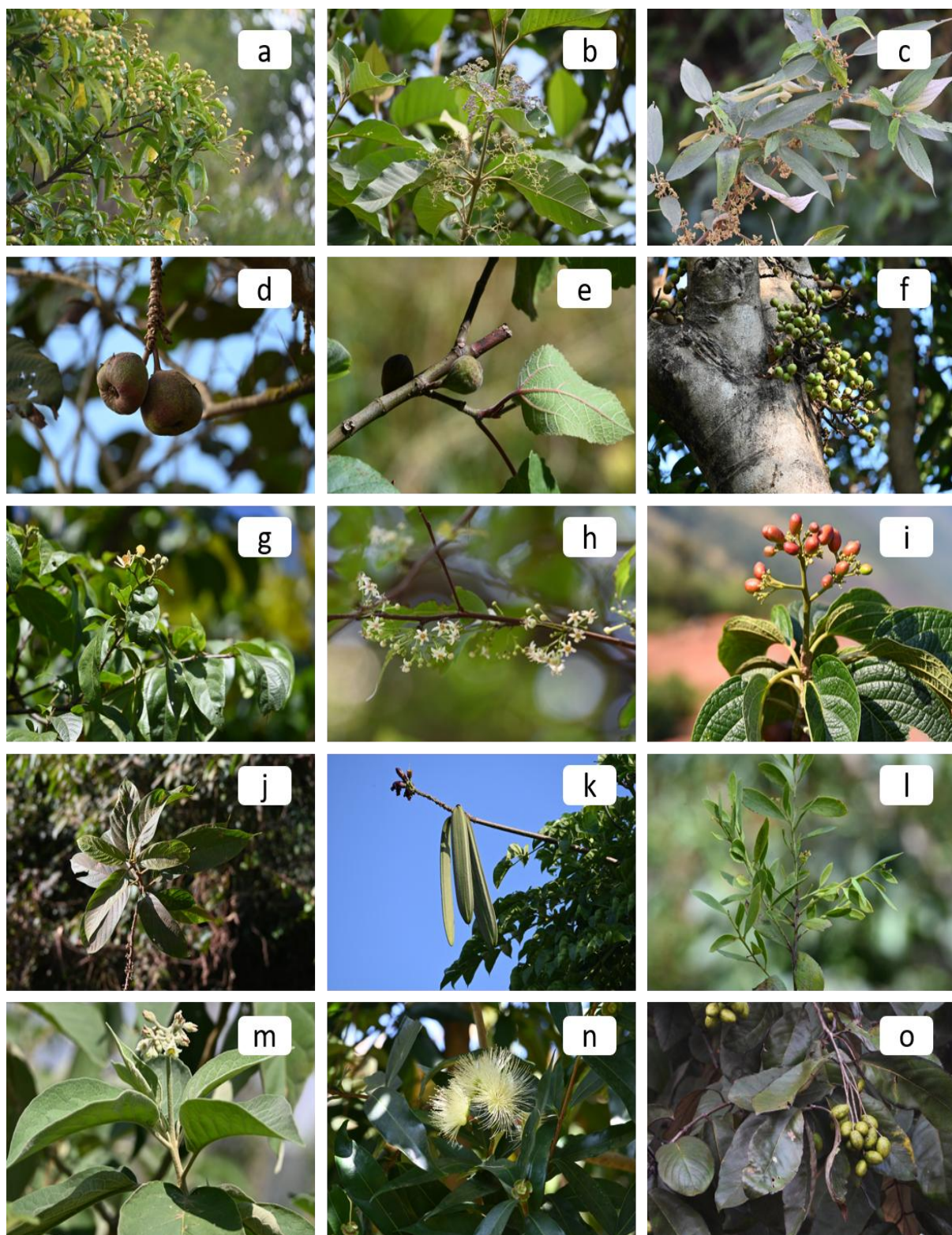


Plate 5: Some trees in Deomali hill: a) *Acronychia pedunculata*, b) *Callicarpa tomentosa*, c) *Debregeasia longifolia*, d) *Ficus auriculata*, e) *Ficus palmata*, f) *Ficus racemosa*, g) *Grewia hirsuta*, h) *Gymnosporia rothiana*, i) *Mappia nimmoniana*, j) *Oreocnide integrifolia*, k) *Oroxylum indicum*, l) *Osyris lanceolata*, m) *Solanum erianthum*, n) *Syzygium jamboos*, o) *Terminalia chebula*

Floral Diversity of Tableland

A total of 104 plant species belonging to 36 families are recorded from the tableland of the Deomali hill. The plateau supports a distinctive assemblage of plant habits shaped by its open, windswept terrain and shallow, rocky soils. Herbs dominate the flora with 44 species, reflecting grassland-like conditions where low, fast-growing and seasonally responsive plants flourish. Grasses form the next major component, with 32 species, playing a crucial role in binding the thin soils and maintaining the grassland character of the hilltop. Their abundance also points to ecological influences such as grazing and periodic fires, which favour grass-dominated communities. Shrubs (13 species) occur more sparsely, adding structural diversity to an otherwise open habitat. Trees are few, represented by just 8 species, indicating that harsh environmental conditions strong winds, shallow soils and limited moisture, restrict the establishment of larger woody plants. Climbers, with 4 species, are similarly limited due to the scarcity of supporting vegetation. Specialised or moisture-dependent groups are minimally represented: sedges (1 species), ferns (1 species) and a single palm species, each signalling the presence of small, localized microhabitats such as seasonal depressions or rocky crevices where moisture or shade is briefly retained (Figure 2; Table 2).

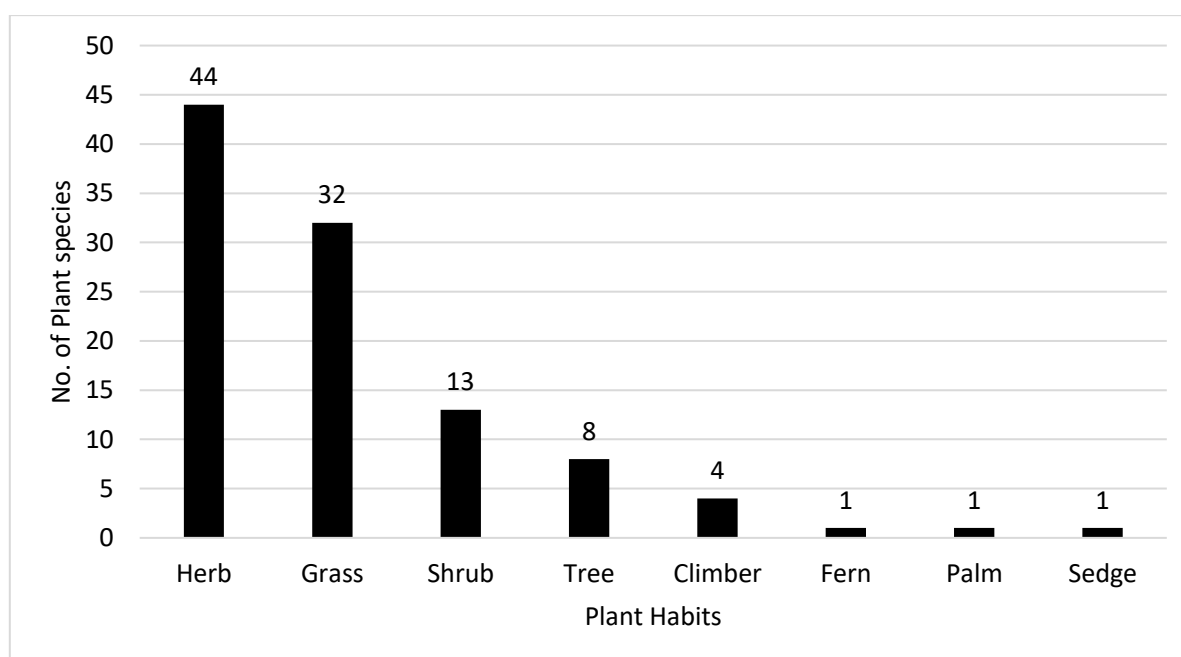


Figure 2: Flora of the Tableland of Deomali hill

Table 2: Flora of the Tableland of Deomali hill, Koraput Forest Division, Odisha

Plant name	Family	Common name	Habit
<i>Acmella paniculata</i> (Wall. ex DC.) R.K.Jansen	Asteraceae	Toothache plant	Herb
<i>Acmella uliginosa</i> (Sw.) Cass. (Plate 6a)	Asteraceae	Marsh spotflower	Herb
<i>Ageratina adenophora</i> (Spreng.) R.M.King & H.Rob.	Asteraceae	Crofton weed	Shrub

<i>Ageratum conyzoides</i> L.	Asteraceae	Billy goat weed	Herb
<i>Alectra avensis</i> (Benth.) Merr.	Orobanchaceae	Alectra	Parasitic herb
<i>Alloteropsis cimicina</i> (L.) Stapf	Poaceae	Cockroach grass	Grass
<i>Alternanthera ficoidea</i> (L.) P.Beauv.	Amaranthaceae	Fig joyweed	Herb
<i>Apluda mutica</i> L.	Poaceae	Mountain rice grass	Grass
<i>Aristida setacea</i> Retz.	Poaceae	Wiregrass	Grass
<i>Arthraxon lancifolius</i> (Trin.) Hochst.	Poaceae	Carpet grass	Grass
<i>Arundinella pumila</i> (Hochst. ex A. Rich.) Steud.	Poaceae	Low arundinella	Grass
<i>Bidens pilosa</i> L.	Asteraceae	Spanish needle	Herb
<i>Boerhavia diffusa</i> L.	Nyctaginaceae	Punarnava	Herb
<i>Bothriochloa bladhii</i> (Retz.) S.T. Blake	Poaceae	Australian bluegrass	Grass
<i>Bothriochloa pertusa</i> (L.) A. Camus	Poaceae	Indian couch grass	Grass
<i>Calotropis gigantea</i> (L.) W.T.Aiton	Apocynaceae	Giant milkweed	Shrub
<i>Canscora diffusa</i> (Vahl) R.Br. ex Roem. & Schult.	Gentianaceae	Spreading canscora	Herb
<i>Carissa spinarum</i> L.	Apocynaceae	Khira koli	Shrub
<i>Cenchrus pedicellatus</i> (Trin.) Morrone	Poaceae	Deenanath grass	Grass
<i>Centella asiatica</i> (L.) Urb.	Apiaceae	Gotu kola/ Indian pennywort	Herb
<i>Chamaecrista mimosoides</i> (L.) Greene (Plate 6b)	Fabaceae	Feather-leaved Cassia	Herb
<i>Chromolaena odorata</i> (L.) R.M.King & H.Rob.	Asteraceae	Siam weed	Shrub
<i>Chrysopogon aciculatus</i> (Retz.) Trin.	Poaceae	Golden beard grass	Grass
<i>Cissampelos pareira</i> L.	Menispermaceae	Velvetleaf	Climber
<i>Colebrookea oppositifolia</i> Sm.	Lamiaceae	Indian squirrel tail	Shrub
<i>Combretum roxburghii</i> Spreng.	Combretaceae	White combretum	Woody climber
<i>Corymbia citriodora</i> (Hook.) K.D.Hill & L.A.S.Johnson	Myrtaceae	Lemon-scented gum	Tree
<i>Crassocephalum crepidioides</i> (Benth.) S.Moore (Plate 6c)	Asteraceae	Redflower ragleaf	Herb

<i>Cuphea carthagenensis</i> (Jacq.) J.F.Macbr.	Lythraceae	Tarweed cuphea	Herb
<i>Cyanotis tuberosa</i> (Roxb.) Schult. & Schult.f.	Commelinaceae	Pussy's ears	Herb
<i>Cyanthillium cinereum</i> (L.) H.Rob.	Asteraceae	Ash-coloured fleabane	Herb
<i>Cynodon dactylon</i> (L.) Pers.	Poaceae	Bermuda grass	Grass
<i>Cyperus cuspidatus</i> Kunth (Plate 6d)	Cyperaceae	Coastal plain flatsedge	Sedge
<i>Cyrtococcum oxyphyllum</i> (Steud.) A. Camus	Poaceae	Shining panic grass	Grass
<i>Digitaria bicornis</i> (Lam.) Roem. & Schult.	Poaceae	Forked crabgrass	Grass
<i>Digitaria ciliaris</i> (Retz.) Koeler	Poaceae	Southern crabgrass	Grass
<i>Digitaria longiflora</i> (Retz.) Pers.	Poaceae	Long-flowered crabgrass	Grass
<i>Dimeria ornithopoda</i> Trin.	Poaceae	Bird-foot grass	Grass
<i>Dioscorea bulbifera</i> L.	Dioscoreaceae	Air potato	Climber
<i>Drimia indica</i> (Roxb.) Jessop	Asparagaceae	Indian squill	Herb
<i>Echinochloa colona</i> (L.) Link	Poaceae	Jungle rice	Grass
<i>Elephantopus scaber</i> L.	Asteraceae	Elephant's foot	Herb
<i>Emilia sonchifolia</i> (L.) DC.	Asteraceae	Lilac tasselflower	Herb
<i>Eragrostis ciliaris</i> (L.) R. Br.	Poaceae	Gopher grass	Grass
<i>Eragrostis pilosa</i> (L.) P. Beauv.	Poaceae	Indian lovegrass	Grass
<i>Eragrostis unioides</i> (Retz.) Nees ex Steud.	Poaceae	Chinese lovegrass	Grass
<i>Erigeron canadensis</i> L.	Asteraceae	Canadian fleabane	Herb
<i>Eucalyptus camaldulensis</i> Dehnh.	Myrtaceae	River red gum	Tree
<i>Eucalyptus globulus</i> Labill.	Myrtaceae	Blue gum	Tree
<i>Eucalyptus tereticornis</i> Sm.	Myrtaceae	Mysore gum	Tree
<i>Evolvulus alsinoides</i> (L.) L. (Plate 6e)	Convolvulaceae	Slender dwarf morning glory	Herb
<i>Gonostegia pentandra</i> (Roxb.) Miq.	Urticaceae	Narrow-leaf pouzol's bush	Shrub
<i>Grona triflora</i> (L.) H.Ohashi & K.Ohashi	Fabaceae	Creeping tick trefoil	Herb
<i>Hemigraphis latebrosa</i> (B.Heyne ex Roth) Nees	Acanthaceae	Shade loving hemigraphis	Herb
<i>Hemionitis arifolia</i> (Burm.f.) T.Moore (Plate 6f)	Pteridaceae	Heartleaf fern	Fern

<i>Heteropogon contortus</i> (L.) P.Beauv. ex Roem. & Schult.	Poaceae	Tanglehead grass	Grass
<i>Hybanthus enneaspermus</i> (L.) F.Muell.	Violaceae	Pink lady sleeper	Herb
<i>Hypericum japonicum</i> Thunb. (Plate 6g)	Hypericaceae	Japanese St. John's wort	Herb
<i>Ichnocarpus frutescens</i> (L.) W.T.Aiton	Apocynaceae	Black creeper	Climber
<i>Isachne globosa</i> (Thunb.) Kuntze	Poaceae	Globe isachne	Grass
<i>Ischaemum rugosum</i> Salisb.	Poaceae	Wrinkled ischaemum	Grass
<i>Lantana camara</i> L.	Verbenaceae	Lantana	Shrub
<i>Leonotis nepetifolia</i> (L.) R.Br.	Lamiaceae	Lion's ear	Herb
<i>Ludwigia perennis</i> L.	Onagraceae	Perennial water primrose	Herb
<i>Melinis repens</i> (Willd.) Zizka	Poaceae	Natal red-top grass	Grass
<i>Mimosa pudica</i> L.	Fabaceae	Touch-me-not	Herb
<i>Mitracarpus hirtus</i> (L.) DC.	Rubiaceae	Small square weed	Herb
<i>Olax scandens</i> Roxb.	Olcaceae	Climbing olax	Small tree
<i>Oldenlandia corymbosa</i> L.	Rubiaceae	Flat-top Mille Graines	Herb
<i>Oplismenus compositus</i> (L.) P. Beauv.	Poaceae	Basketgrass	Grass
<i>Osbeckia stellata</i> Buch.-Ham. ex D.Don	Melastomataceae	Starry osbeckia	Shrub
<i>Oureta lanata</i> (L.) Kuntze	Amaranthaceae	Lavana	Herb
<i>Oxalis corniculata</i> L. (Plate 6h)	Oxalidaceae	Creeping wood sorrel	Herb
<i>Panicum repens</i> L.	Poaceae	Torpedo grass	Grass
<i>Paspalum scrobiculatum</i> L.	Poaceae	Kodo millet	Grass
<i>Phoenix acaulis</i> Roxb.	Aracaceae	Stemless date palm	Palm
<i>Pogonatherum crinitum</i> (Thunb.) Kunth	Poaceae	Bristlegrass	Grass
<i>Pogostemon quadrifolius</i> (Benth.) F.Muell. (Plate 6i)	Lamiaceae	Four-leaf Pogostemon	Shrub
<i>Polytrias indica</i> (Houtt.) Veldkamp	Poaceae	Indian polytrias grass	Grass
<i>Pseudognaphalium</i> <i>canescens</i> (DC.) Anderb.	Asteraceae	Cudweed	Herb
<i>Richardia scabra</i> L. (Plate 6j)	Rubiaceae	Rough mexican clover	Herb

<i>Rostellularia procumbens</i> (L.) Nees	Acanthaceae	Prostrate rostellularia	Herb
<i>Rungia pectinata</i> (L.) Nees	Acanthaceae	Pectinate rungia	Herb
<i>Sacciolepis indica</i> (L.) Chase	Poaceae	Indian cupscale grass	Grass
<i>Scoparia dulcis</i> L.	Plantaginaceae	Sweet broomweed	Herb
<i>Setaria flavida</i> (Retz.) Veldkamp	Poaceae	Yellow bristlegrass	Grass
<i>Setaria intermedia</i> Roem. & Schult.	Poaceae	Intermediate bristlegrass	Grass
<i>Setaria pumila</i> (Poir.) Roem. & Schult.	Poaceae	Yellow foxtail	Grass
<i>Sida acuta</i> Burm.f.	Malvaceae	Common wireweed	Herb
<i>Sida cordata</i> (Burm.f.) Borss. Waalk.	Malvaceae	Heartleaf sida	Herb
<i>Sonchus oleraceus</i> L. (Plate 6k)	Asteraceae	Common sowthistle	Herb
<i>Spermacoce articularis</i> L.f.	Rubiaceae	Jointed buttonweed	Herb
<i>Spermacoce ocymoides</i> Burm.f. (Plate 6l)	Rubiaceae	Wild buttonweed	Herb
<i>Stachytarpheta jamaicensis</i> (L.) Vahl (Plate 6m)	Verbenaceae	Blue snakeweed	Herb
<i>Syzygium cumini</i> (L.) Skeels	Myrtaceae	Jamun	Tree
<i>Terminalia chebula</i> Retz.	Combretaceae	Harada	Tree
<i>Trigastrotheca pentaphylla</i> (L.) Thulin	Molluginaceae	Pentapetes	Shrub
<i>Urena lobata</i> L.	Malvaceae	Caesar weed	Shrub
<i>Urena lobata</i> subsp. <i>sinuata</i> (L.) Borss. Waalk.	Malvaceae	Caesar weed	Shrub
<i>Vicoa indica</i> (L.) DC. (Plate 6n)	Asteraceae	Indian vicoa	Herb
<i>Waltheria indica</i> L. (Plate 6o)	Malvaceae	Sleepy morning	Herb
<i>Wendlandia thyrsoides</i> (Roth) Steud.	Rubiaceae	Wendlandia	Tree
<i>Ziziphus rugosa</i> Lam.	Rhamnaceae	Wild jujube	Climbing shrub
<i>Zornia gibbosa</i> Span.	Fabaceae	Zornia	Herb

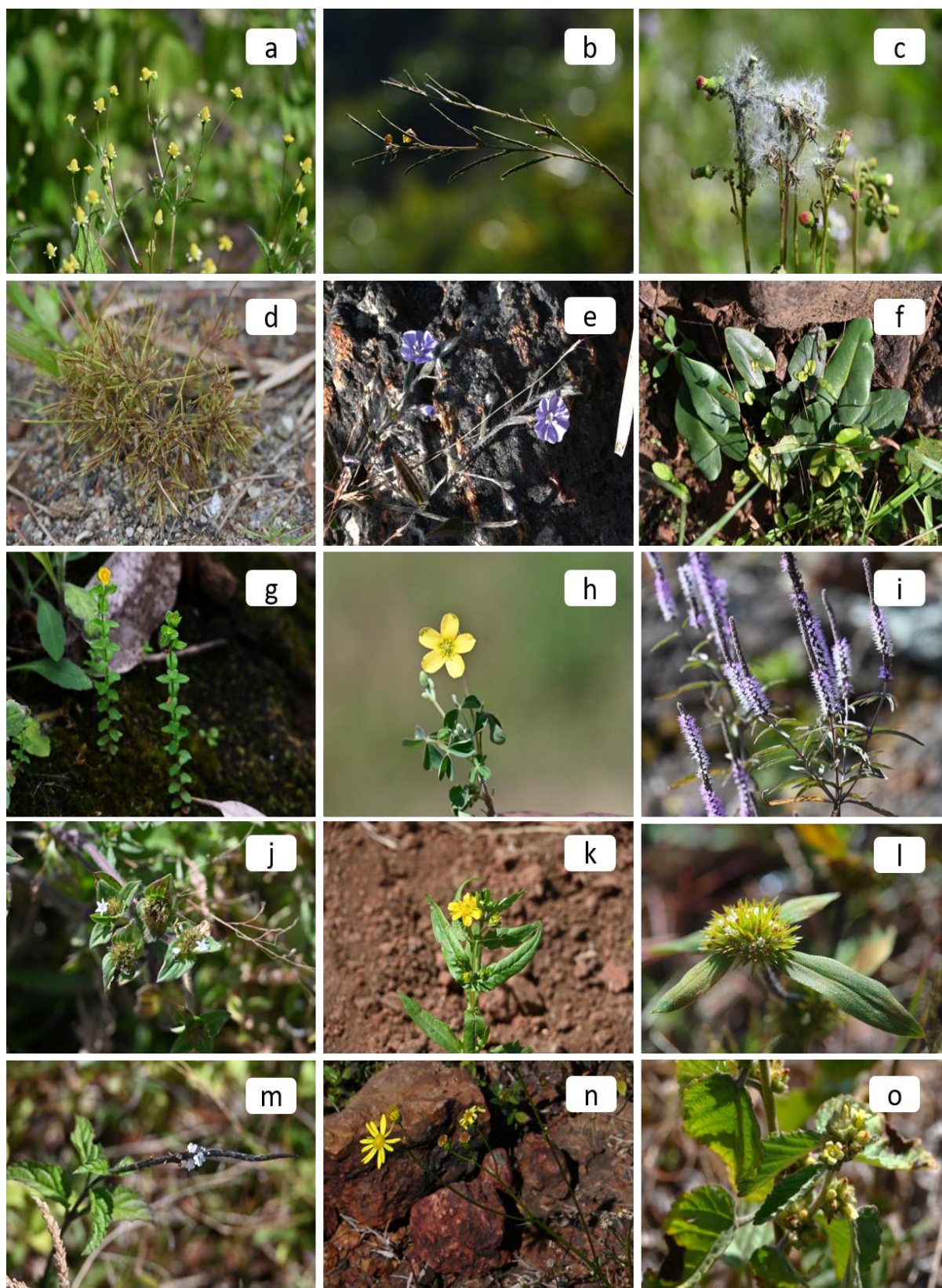


Plate 6: Flora in tableland of Deomali hill: a) *Acmella uliginosa*, b) *Chamaecrista mimosoides*, c) *Crassocephalum crepidioides*, d) *Cyperus cuspidatus*, e) *Evolvulus alsinoides*, f) *Hemionitis arifolia*, g) *Hypericum japonicum*, h) *Oxalis corniculata*, i) *Pogostemon quadrifolius*, j) *Richardia scabra*, k) *Sonchus oleraceus*, l) *Spermacoce ocymoides*, m) *Stachytarpheta jamaicensis*, n) *Vicoa indica*, o) *Waltheria indica*

Invasive species of Deomali Hill, Koraput Forest Division, Odisha

Deomali hill, the pride of southern Odisha, is today facing a growing ecological threat from invasive alien plant species that are rapidly altering its native landscape. The recent assessment has identified 25 invasive species affecting the hill ecosystem, with 5 shrubs, 4 trees, 14 herbs and 2 grasses. Among the shrubs, species such as *Lantana camara*, *Chromolaena odorata*, and *Ageratina adenophora* are aggressively spreading. Grass species like *Cenchrus pedicellatus* and *Melinis repens* are also reducing habitat quality. We must strengthen monitoring, promote community-based removal drives and restore native vegetation to protect Deomali Hills for future generations (Table 3).

Table 3: Invasive species of Deomali Hill, Koraput Forest Division, Odisha

Common name	Plant name	Origin	Site (s) of high population in the study area
Billy goat weed	<i>Ageratum conyzoides</i>	Tropical America	TL & PRF
Blue gum	<i>Eucalyptus globulus</i>	Southeastern Australia	TL & PRF
Blue snakeweed	<i>Sonchus oleraceus</i>	Europe and Western Asia	TL
Canadian fleabane	<i>Erigeron canadensis</i>	North America and Central America	TL
Cloven grass	<i>Cenchrus pedicellatus</i>	Ethiopia	TL & PRF
Common sowthistle	<i>Sida acuta</i>	Central America	TL
Common wireweed	<i>Scoparia dulcis</i>	Americas	TL & PRF
Creeping wood sorrel	<i>Oxalis corniculata</i>	Southeastern Asia	TL
Crofton weed	<i>Ageratina adenophora</i>	Mexico	TL & PRF
Cudweed	<i>Pseudognaphalium canescens</i>	Western North America,	TL & PRF
Fig joyweed	<i>Alternanthera ficoidea</i>	Caribbean and South America	TL & PRF
Heartleaf fern	<i>Hemionitis arifolia</i>	Tropical America	TL & PRF
Lantana	<i>Lantana camara</i>	American tropics	TL & PRF
Lemon-scented gum	<i>Corymbia citriodora</i>	North-eastern Australia	TL & PRF
Marsh spotflower	<i>Acmella uliginosa</i>	Americas	TL & PRF
Mysore gum	<i>Eucalyptus tereticornis</i>	Eastern Australia and southern New Guinea	TL & PRF
Natal red-top grass	<i>Melinis repens</i>	Southern Africa	TL
Pentapetes	<i>Stachytarpheta jamaicensis</i>	Caribbean	TL
River red gum	<i>Eucalyptus camaldulensis</i>	Australia	TL & PRF
Rough Mexican Clover	<i>Richardia scabra</i>	North America, South America and East Africa	TL
Siam weed	<i>Chromolaena odorata</i>	Americas	TL & PRF
Small square weed	<i>Mitracarpus hirtus</i>	Mexico	TL
Spanish needle	<i>Bidens pilosa</i>	Americas	TL & PRF

Tarweed cuphea	<i>Cuphea carthagenensis</i>	Americas	TL & PRF
Toothache plant	<i>Acmella paniculata</i>	Americas	TL & PRF

(TL: Tableland; PRF: Proposed Reserve Forest)

Weeds of Deomali Hill, Koraput Forest Division, Odisha

The current survey recorded 19 major weeds from Deomali hill. The majority of species are herbs (12 species), like *Sonchus oleraceus* (Common Sowthistle), *Oxalis corniculata* (Creeping Wood Sorrel), *Richardia scabra* (Rough mexican clover), etc., form dense mats, compete for nutrients and suppress native ground flora. Three major shrubby invaders, *Ageratina adenophora* (Crofton weed), *Lantana camara* and *Chromolaena odorata* (Siam weed), are recorded in both TL and PRF. These shrubs pose a higher ecological risk because they spread rapidly, shade out native vegetation, alter fire regimes and dominate forest edges and grassland-shrub mosaics. *Melinis repens* (Natal red-top grass) and *Cenchrus pedicellatus* (Deenanath grass) are noted in hilltop regions and along the forest periphery. These grasses proliferate in disturbed soils and outcompete native grass species essential for herbivore foraging and soil stabilisation (Table 4).

Table 4: Weeds of Deomali Hill, Koraput Forest Division, Odisha

Common name	Plant name	Habit	Location (s)
Billy goat weed	<i>Ageratum conyzoides</i>	Herb	TL & PRF
Blue snakeweed	<i>Stachytarpheta jamaicensis</i>	Herb	TL
Canadian fleabane	<i>Erigeron canadensis</i>	Herb	TL
Deenanath grass	<i>Cenchrus pedicellatus</i>	Grass	TL & PRF
Common sowthistle	<i>Sonchus oleraceus</i>	Herb	TL
Common wireweed	<i>Sida acuta</i>	Herb	TL & PRF
Creeping wood sorrel	<i>Oxalis corniculata</i>	Herb	TL
Crofton weed	<i>Ageratina adenophora</i>	Shrub	TL & PRF
Cudweed	<i>Pseudognaphalium canescens</i>	Herb	TL & PRF
Fig joyweed	<i>Alternanthera ficoidea</i>	Herb	TL & PRF
Lantana	<i>Lantana camara</i>	Shrub	TL & PRF
Marsh spotflower	<i>Acmella uliginosa</i>	Herb	TL & PRF
Natal red-top grass	<i>Melinis repens</i>	Grass	TL
Rough mexican clover	<i>Richardia scabra</i>	Herb	TL
Siam weed	<i>Chromolaena odorata</i>	Shrub	TL & PRF
Small square weed	<i>Mitracarpus hirtus</i>	Herb	TL
Spanish needle	<i>Bidens pilosa</i>	Herb	TL & PRF
Tarweed cuphea	<i>Cuphea carthagenensis</i>	Herb	TL & PRF
Toothache plant	<i>Acmella paniculata</i>	Herb	TL & PRF

(TL: Tableland; PRF: Proposed Reserve Forest)

Kerang: A cultural heritage of Deomali hills

The Gadaba and Bonda tribal communities of the Deomali hills possess an age-old tradition of weaving distinctive textiles using fibres derived from a local plant known as Kerang. Botanically identified as *Boehmeria macrophylla* Hornem., this shrub of the family Urticaceae occurs moderately on hill slopes, foothills, stream banks and within forested areas. The weaving process begins with the careful extraction of stem bark from *B. macrophylla*. The bark strips are soaked in running water, sun-dried and then beaten to release fine, pliable fibres. These fibres, combined with natural dyes sourced from the surrounding landscape, are skilfully woven to produce the characteristic colourful, striped fabrics (Figure 3).



Figure 3: Traditional weaving of the Kerang fabric by the tribal communities of Koraput

Findings from the present study draw attention towards the need for a systematic assessment and proper documentation of Kerang resources to support sustainable utilisation and develop effective conservation strategies for *B. macrophylla* and the associated traditional weaving practices.

FIELD SURVEY



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