

AVI-FAUNA AND FLORA OF JAMIA HAMDARD



Environmental Quality Cell

Avi-fauna and Flora of Jamia Hamdard, New Delhi

Jamia Hamdard

New Delhi

AVI-FAUNA

PREFACE

Plants (herbs, shrubs or trees) constitute the Flora of a place, while all forms of animal life (terrestrial or aquatic) are referred to as Fauna. The flora and fauna are important constituents of an ecosystem. Diversity of both the forms depicts the balance and health of an ecosystem. This book, entitled “Avi-fauna and Flora of Jamia Hamdard, New Delhi” is a compilation of information on animal (exclusively birds) and plants found in Jamia Hamdard Campus.

People throughout the world are witness to various climatic changes and nature’s fury. Environmentalists are of the opinion that most of these changes are manmade. Indiscriminate deforestation, exhaustive mining, destruction/encroachments of natural habitats, and rapid industrialization are the main causative factors. This has also triggered global efforts to reduce the overall damage to environment and the resultant carbon footprint. Several conventions and resolutions have been adopted to safeguard the environment from further deterioration. There is an utter need to sensitize and mobilize people towards the environment. This includes to inventorise the flora and fauna and to make steps to improve the ecosystem at local, national and international levels.

Universities being the seats of higher learning are bound to play their role in this direction. Besides suggesting strategies for maintaining ecosystem to other stakeholders, it is morally incumbent on them to maintain a healthy ecosystem on their campuses. Government of India through Ministry of Human Resource and Development (MHRD) has made it mandatory to constitute Environment Quality Cell (EQC) to assess the environment quality of university campuses. Jamia Hamdard, Delhi under the able leadership of Dr. G. N. Qazi, Vice-Chancellor, set up EQC that was given the task of inventorization of flora and fauna of its campus for the first time.

In this book the data regarding the fauna of Jamia Hamdard has been mainly restricted to avi-fauna (birds only). A brief survey of the campus revealed the presence of about 25 birds, both resident and migratory in nature. The information about their scientific names, common names, habit, habitat, zoological description, feather/beak colors, voices produced etc. has been enlisted. The text has been supplemented by high resolution photos and exhibits. The survey revealed that Jungle babbler, common mynah, house crows, pigeons, doves and bulbul are abundantly located in the campus.

The flora of Jamia Hamdard campus revealed a great diversity of plant life. This book describes about 50 plants with respect to their scientific names, common names, habit, habitat, botanical description, commercial and medicinal uses. The plants included all types; native to

naturalized, medicinal to ornamental, creepers to lofty trees, and herbs to trees. The shade plants as Royal palm, Toddy palm, false Ashoka, Maulsari, Hingon; hedge plants as white Cedar, Harsingar; ornamental plants as Monks cress, Champa methi, Marigold; and medicinal plants as Nim, Safeda, Amla, Mulberry, Giloe, Gudhal, Makoi, etc. are found in abundance.

The green cover of the university campus, mainly consisting of lawn grass, is more than 70 % of the total area making a truly lush green campus. It covers Faculty lawns, residential blocks, hospitals, parks, road sides, hostels and other subsidiaries of the university.

EQC team wholeheartedly thanks its members for survey of fauna and flora of the campus and compilation of this book. The team also acknowledges the contribution of Prof. Javed Ahmad, Ex-Dean, Faculty of Science and his team for compilation of “Herbal Garden – At a Glance” that should be referred in conjunction to this report. It is related to medicinal and aromatic plants cultivated in the herbal garden of Jamia Hamdard.

The information of avi-fauna and flora of Jamia Hamdard included here is only indicative rather than exhaustive. Every possible care has been however, taken to include scientifically correct information. EQC team solicits suggestions from all to make the document better and more informative in future.

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Jamia Hamdard, New Delhi

Date: 14/03/2016

Place: Delhi

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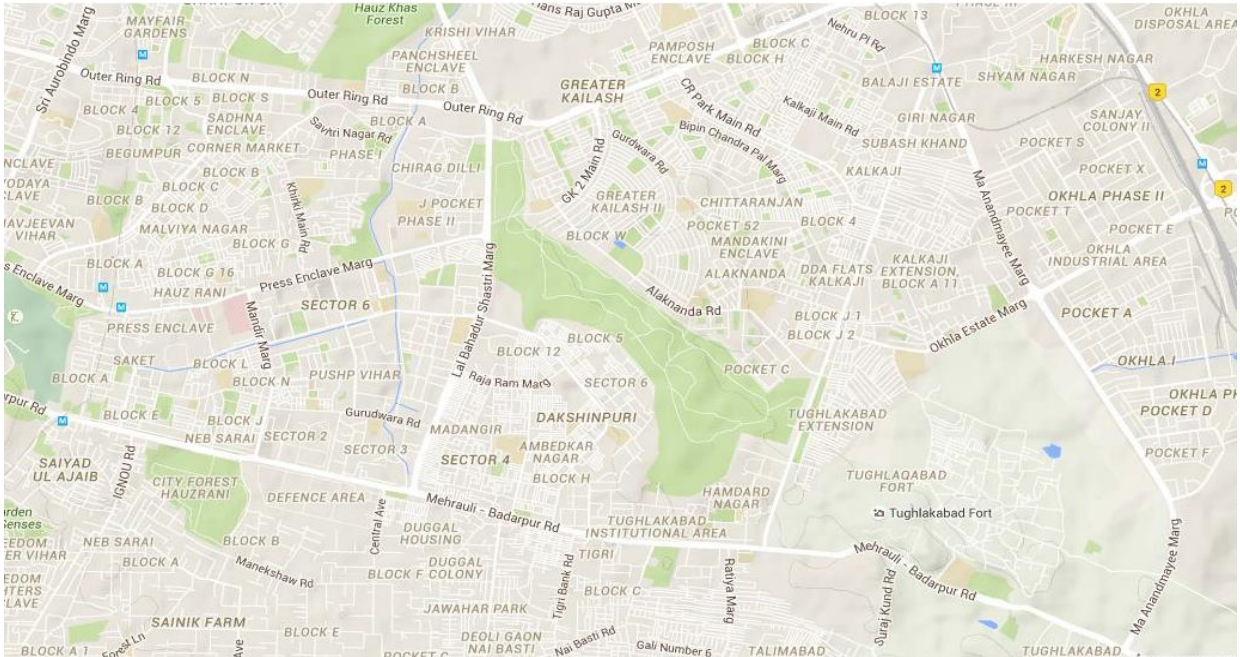
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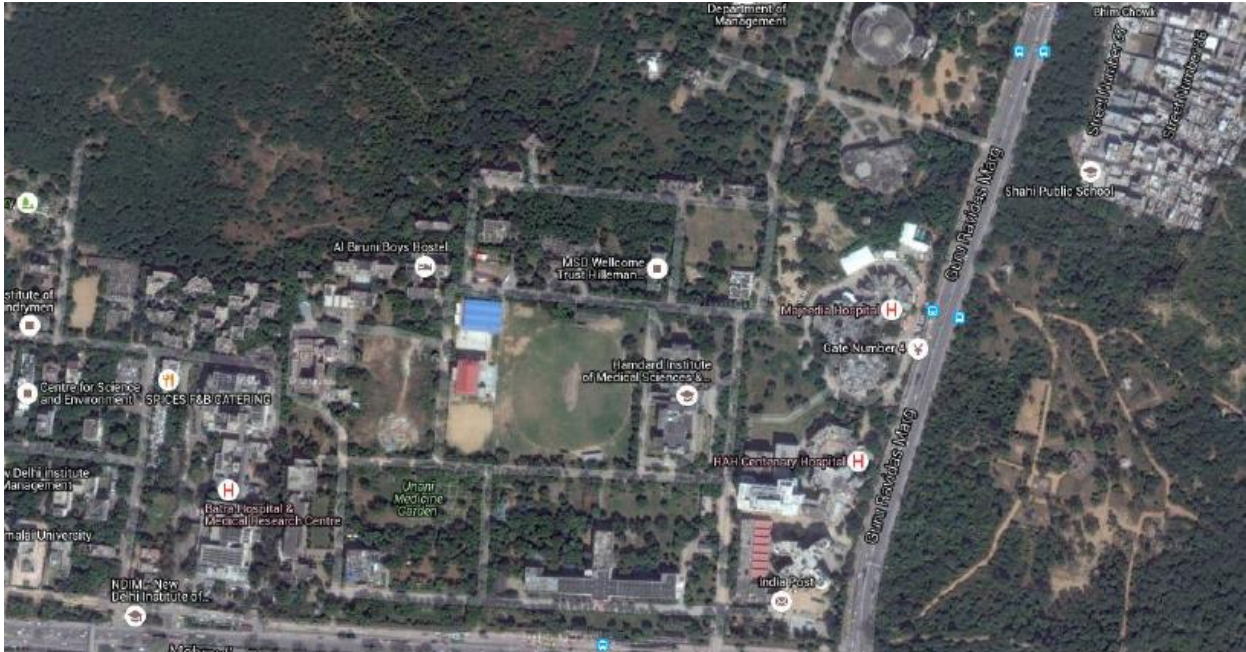
Introduction

Jamia Hamdard, an esteemed educational institution accredited by NAAC in 'A' grade, was set up in Hamdard Nagar, New Delhi by a great visionary and Unani physician, Padma Bhushan Hakeem Abdul Hameed Sahib. It got Deemed to-be-University status in 1989 by University Grants Commission. It is located in a sprawling area of nearly 200 acres in Tughlakabad in South Delhi, which has extended forest portion of 'Jahan-Panah Forest' at its north-east portions (Map 1a & 1b).



Map 1a: Jamia Hamdard Campus and adjoining areas (Source: Google Map)

The campus has lot of vegetation and diversified ecosystem, which encourages a number of faunal species residing or visiting the campus (Map 1b). To assess the Flora and Avi-Fauna of the campus, a survey was conducted, which yielded a good number of plant and bird species. As per information gathered through personal discussions, it was also reported that campus is frequented by mammals like Nilgai or Blue Bull (*Boselaphus tragocamelus*) and had presence of snakes and peafowl etc. Besides herbs, shrubs and trees that are spread over in Jamia Hamdard campus, it also has a Herbal Garden on a total area of 6 acres of land with about 150 species of important medicinal and aromatic plants. The details of these medicinal and aromatic plants are given in a publication entitled “Herbal Garden At-A-Glance, also available on University website: www.jamiahamdard.ac.in, www.jamiahamdard.edu.



Map 1b: Google Image of Jamia Hamdard Campus –Survey area (Courtesy: Google)

RATIONALE

An inventory of floral and faunal resources is important to assess the health of the ecosystem. A survey was important for Jamia Hamdard Campus to collect the baseline data, which can be updated on regular basis. In view of above, the floral and Avi-faunal survey was conducted at Jamia Hamdard Campus. The survey team was equipped with binoculars, cameras, bird guides and taxonomist as well as ornithologist to identify and photograph birds as well as flora on-site. Researchers from Jamia Hamdard also helped the team in location identification and recording of data during the survey. The Survey team was consisted of Dr. Monowar Alam Khalid (Adjunct Professor & Ornithologist), Dr. S.R. Mir (Pharmacognoeist), Mr. Sunal (Bird Researcher) and Mr. Yasheshwar (Research Scholar) and supported by Mr Naved, Research Assistant for taking around campus for location identification and helping in recording the data during the survey. Also, Mr Gurpreet, Researcher from Eco-Consultants helped in photo identification of few species.

The bird survey yielded interesting results of resident and migratory Avi-fauna. A total of 25 bird species were recorded during the brief survey, amongst which 10 species were more prominent and abundant in population. These 10 bird species constituted nearly 95% of the population and remaining 15 species constituted only 5% of the total population. The important species

abundant at the campus are Jungle Babbler (22%), Common Myna (21%), House Crow (14%) followed by Common Pigeon (12%). Other important species abundant in the campus are Rose ringed Parakeet (7%), Large grey Babbler (6%), Jungle Myna (5%) along with Red vented Bulbul (2%), Eurasian collared Dove (2%) and Yellow footed Green Pigeon (2%) etc (Fig. 1). Remaining 15 species like Robin, Prinia, Treepie, Woodpecker, Barbet, Warbler, Sunbird etc constitute the 5% population of birds in the campus as observed during Winter Seasons i.e. February month of 2016. The detailed list of birds identified during the survey is given in Table 1.

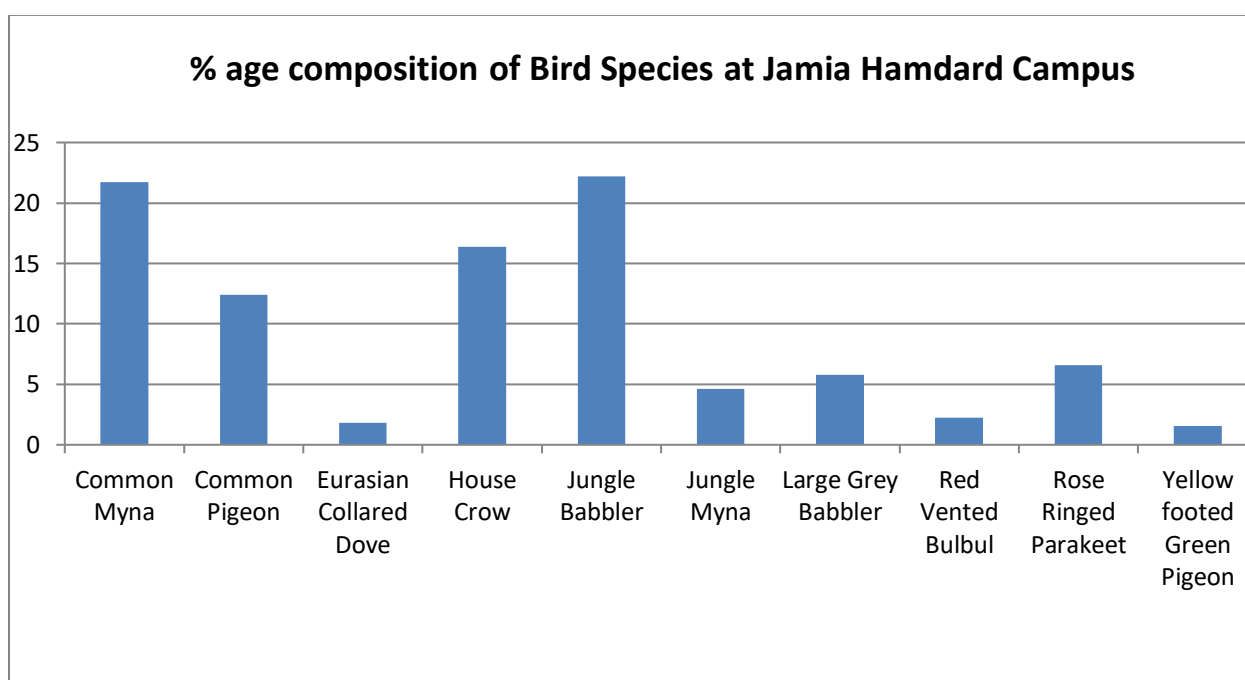


Table 1: Percentage of Bird Species composition at Jamia Hamdard Campus as per survey

In floral survey 50 tree species and 150 species of medicinal and aromatic plants were identified. The descriptions and common uses of the Avi-fauna and flora are being given below along with pictures.



Zoological Description

Common Name : Ashy Prinia

Scientific Name : *Prinia socialis*

Widespread resident; unrecorded from parts of Northeast. It is 13 cm long. Voice song a wheezy jimmy-jimmy-jimmy. This passerine bird is found in dry open grassland, open woodland, scrub and in home gardens in many cities. The northern limits of the species are along the Himalayan foothills extending into the upper Indus river system. The species is absent from the dry desert zone of the west of India and extends east into Burma. The Sri Lankan population is found mainly in the lowlands but going up into the hills to about 1600 m.



Zoological Description

Common Name : Barn Swallow

Scientific Name : *Hirundo rustica*

Swallows are small birds with long, pointed wings. They are fast, masterful flyers who catch all their insect food on the wing. Their legs and feet are small and unsuitable for walking, and their bills are also very small. The outer tail feathers are the longest, producing notched or V-shaped tails. Breeds in Himalayas and Northeast India; widespread farther south in winters. Gregarious in non-breeding season, when often congregates on telegraph wires. Voice song varied twittering; call a clean vit vit, sharp vheet vheet when alarmed. The preferred habitat of the barn swallow is open country with low vegetation, such as pasture, meadows and farmland, preferably with nearby water. The barn swallow typically feeds above shallow water or the ground, often following animals, humans or farm machinery to catch disturbed insects, but it will occasionally pick prey items from the water surface, walls and plants. In the breeding areas, large flies make up around 70% of the diet, with aphids also a significant component. On the wintering grounds, Hymenoptera, especially flying ants, are important food items. When egg-laying, barn swallows hunt in pairs, but will form often large flocks otherwise.



@ Sunal K Roamin

Zoological Description

Common Name : Black Kite

Scientific Name : *Milvus migrans*

They are widespread resident, gregarious throughout the year and mainly occur around cities, towns and villages, also mountains. It is 58-60 cm long. Voice has a shrill, almost musical whistle *eue-wir-r-r-r-r*. The species is found in Europe, Asia, Africa and Australia. The temperate populations of this kite tend to be migratory while the tropical ones are resident. Black kites are most often seen gliding and soaring on thermals as they search for food. The flight is buoyant and the bird glides with ease, changing directions easily. They will swoop down with their legs lowered to snatch small live prey, fish, household refuse and carrion. They are opportunist hunters and have been known to take birds, bats and rodents. They are attracted to smoke and fires, where they seek escaping prey. The Indian populations are well adapted to living in cities and are found in densely populated areas. Large numbers may be seen soaring in thermals over cities. In some places, they will readily swoop and snatch food held by humans. kites have also been seen to tear and carry away the nests of baya weavers in an attempt to obtain eggs or chicks.



Zoological Description

Common Name : Blyth's reed Warbler

Scientific Name : *Acrocephalous dumetorum*

The Blyth's reed warbler breeds in temperate Asia and easternmost Europe. It is migratory, wintering in India and Sri Lanka. It is one of the most common winter warblers in those countries. This bird is found in scrub or clearings, often near water, but it is not found in marshes. 4-6 eggs are laid in a nest in a bush. This is a medium-sized warbler, 12.5-14 cm in length. The adult has a plain brown back and pale underparts. It is most like reed warbler but is greyer on the back, the forehead is less flattened and the bill is less strong and pointed. The sexes are identical, as with most warblers, but young birds are yellower below. Like most warblers, Blyth's reed warbler is insectivorous, but will take other small food items, including berries. In the breeding season, the best identification feature is the song, which is slow and repetitive, with much mimicry of other birds, punctuated with scales and typically acrocephaline whistles. This bird is named after the British zoologist Edward Blyth.



Zoological Description

Common Name : Brown headed Barbet

Scientific Name : *Megalaima zeylanica*

Widespread resident. Broad leaved forest, wooded areas and trees near habitation in favouring fruiting trees. It is 27 cm long. Voice call is in monotonous *kutroo, kutroo, kutroo* or *kutruk, kutruk, kutruk* uttered throughout the day. The bird is largely frugivorous on mangos, ripe jack, papaya, banana, figs and similar cultivated fruit trees. Its habitat includes urban and country gardens though it tends to eschew heavy forest. The brown-headed barbet is a resident breeder in the Indian subcontinent, widespread in India and also seen in Bangladesh and Sri Lanka. It is an arboreal species of gardens and wooded country which eats fruit and insects. Nonetheless, it is fairly tolerant of humans and is often seen in cities, in greenery. It nests in a tree hole, laying 2-4 eggs.



Zoological Description

Common Name : Common Myna

Scientific Name : *Acridotheres tristis*

Widespread resident; unrecorded in part of Northwest and Northeast continent. Found in Habitation and cultivation. It is 25 cm long. Voice song is disjointed, noisy and tuneless, with gurgling and whistling and much repetition. Has a most distinctive call, a harsh *chake-chake* when alarmed. It is a species of bird native to Asia with its initial home range spanning from Iran, Pakistan, India, Nepal, Bhutan, Bangladesh and Sri Lanka as well as Afghanistan, Uzbekistan, Tajikistan, Turkmenistan, Myanmar to Malaysia, Singapore, peninsular Thailand, Indo-China and China. The range of the common myna is increasing to the extent that in 2000 the IUCN Species Survival Commission declared it among the World's 100 worst invasive species. Like most starlings, the common myna is omnivorous. It feeds on insects, arachnids, crustaceans, reptiles, small mammals, seeds, grain and fruits and discarded waste from human habitation. It forages on the ground among grass for insects, and especially for grasshoppers, from which it gets the generic name *Acridotheres*, "grasshopper hunter". It however feeds on a wide range of insects, mostly picked from the ground. It is a cross-pollinator of flowers such as *Salmalia* and *Erythrina*. It walks on the ground with occasional hops and is an opportunistic feeder on the insects disturbed by grazing cattle as well as fired grass fields.



Zoological Description

Common Name : Common Pigeon

Scientific Name : *Columba livia*

Widespread resident; unrecorded in parts of Northwest and Northeast subcontinent. Feral bird lives in villages and town; wild birds around cliffs and ruins. It is 33 cm long. Voice gives a deep, repeated *gootr-goo, gootr-goo*. Habitats include various open and semi-open environments. Cliffs and rock ledges are used for roosting and breeding in the wild. Originally found wild in Europe, North Africa, and western Asia, feral pigeons have become established in cities around the world. The species is abundant, with an estimated population of 17 to 28 million feral and wild birds in Europe.



Zoological Description

Common Name : Common Tailorbird

Scientific Name : *Orthotomus sutorius*

The common tailorbird is a songbird found across tropical Asia. Popular for its nest made of leaves "sewn" together and immortalized by Rudyard Kipling in his *Jungle Book*, it is a common resident in urban gardens. Although shy birds that are usually hidden within vegetation, their loud calls are familiar and give away their presence. They are distinctive in having a long upright tail, greenish upper body plumage and rust coloured forehead and crown. This passerine bird is typically found in open farmland, scrub, forest edges and gardens. Tailorbirds get their name from the way their nest is constructed. The edges of a large leaf are pierced and sewn together with plant fibre or spider silk to make a cradle in which the actual nest is built. The common tailorbird is insectivorous. The song is a loud cheep-cheep-cheep with variations across the populations. The disyllabic calls are repeated often. Tailorbirds are found singly or in pairs, usually low in the undergrowth or trees sometimes hopping on the ground. They forage for insects and have been known to feed on a range of beetles and bugs. They are attracted to insects visiting flowers.



Zoological Description

Common Name : Egyptian Vulture

Scientific Name : *Neophron percnopterus*

Widespread in Pakistan, Nepal and India, except the northeast. Towns, villages and city outskirts, especially around rubbish dumps and slaughter-houses. It is 60-70 cm long. Globally threatened. The bulk of the resident population of *Neophron percnopterus* occurs in Ethiopia and East Africa, Arabia and the Indian Subcontinent, while Saharan and Sahelian parts of Africa in Algeria, Niger, northernmost Cameroon, Chad and northern Sudan also hold significant but presumably smaller populations. Migratory birds breed in Northernmost Africa (Morocco, Algeria, Tunisia, Libya, Northern Egypt), southern Europe, from Spain in the west, through the Mediterranean, Turkey, the Caucasus and central Asia to Northern Iran, Pakistan, northern India and Nepal. These birds winter within the resident range, and in addition throughout the Sahel region of Africa. Global population estimates for the species are crude with a rough total of around 21,900-30,000 individuals. They feed on a range of food, including mammal faeces (including those of humans), insects in dung, carrion, vegetable matter, and sometimes small animals.



Zoological Description

Common Name : Eurasian Collared Dove

Scientific Name : *Streptopelia decaocto*

Widespread resident, open dry country with cultivation and groves. It is 32 cm long. Voice a repeated cooing kukkoo...kook. The collared dove is not migratory, but is strongly dispersive. Over the last century, it has been one of the great colonisers of the bird world. Its original range at the end of the 19th century was warm temperate and subtropical Asia from Turkey east to southern China and south through India to Sri Lanka. While most birds meet their chicks' protein needs with insects, doves feed their newly hatched chicks fat and protein-rich "crop milk." This whitish fluid comes from liquid-filled cells that slough off the lining of the crop, a portion of the esophagus. After 5 or 10 days, the chicks switch to a diet of regurgitated seeds or fruit



@ Dr M A Khalid

Zoological Description

Common Name : House Crow

Scientific Name : *Corvus splendens*

Widespread resident. Around human habitation and cultivation. It is 40 cm long. Voice main call is a flat, dry kaaa-kaaa. It has a widespread distribution in southern Asia, being native to Nepal, Bangladesh, India, Pakistan, Sri Lanka, Maldives and Laccadive Islands, South West Thailand and coastal southern Iran. House crows feed largely on refuse around human habitations, small reptiles, and other animals such as insects and other small invertebrates, eggs, nestlings, grain and fruits. House crows have also been observed swooping down from the air and snatching baby squirrels. Most food is taken from the ground, but also from trees as opportunity arises. They are highly opportunistic birds and given their omnivorous diet, they can survive on nearly anything that is edible. These birds can be seen near marketplaces and garbage dumps, foraging for scraps. They have also been observed to eat sand after feeding on carcass.



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Zoological Description

Common Name : Indian Robin

Scientific Name : *Saxicoloides fulicatus*

Widespread resident. The Indian robin is a species of bird in the family *Muscicapidae*. It is widespread in the Indian subcontinent, and ranges across Bangladesh, Bhutan, India, Nepal, Pakistan, and Sri Lanka. Found in dry stony areas with scrub and cultivation edges. It is 19 cm long. Voice very short, high-pitched warbling song. They are mainly found in dry habitats and are mostly absent from the thicker forest regions and high rainfall areas. All populations are resident and non-migratory. The species is often found close to human habitation and will frequently perch on rooftops. They feed mostly on insects but are known to take frogs and lizards especially when feeding young at the nest. Individuals may forage late in the evening to capture insects attracted to lights.



Zoological Description

Common Name : Jungle Babbler

Scientific Name : *Turdoides striata*

Widespread resident and found in deciduous forest, cultivation and gardens. It is 25 cm long. Voice a harsh ke-ke-ke. The Jungle babbler's habitat is forest and cultivation. This species, like most babblers, is non-migratory. The jungle babbler lives in flocks of seven to ten or more. It is a noisy bird, and the presence of a flock may generally be known at some distance by the harsh mewling calls, continual chattering, squeaking and chirping produced by its members.



Zoological Description

Common Name : Jungle Myna

Scientific Name : *Acridotheres fuscus*

This bird is a common resident breeder in tropical southern Asia from Nepal, Bangladesh, Pakistan, India and Burma east to Indonesia. This common passerine is typically found in forest and cultivation. The jungle myna builds a nest in hole. The normal clutch is three to six eggs. These nearly 23-centimetre long birds have grey plumage, darker on the head and wings. There are large white wing patches obvious in flight, and a white tail tip. The head has a forehead tuft. The bill and strong legs are bright yellow, and there is no bare skin around eye. The southern Indian race has a blue iris. The sexes are similar, but juveniles are browner. They are usually found close to water or rice fields. Like most starlings, the jungle myna is fairly omnivorous, eating fruit, grain and insects. In many parts of Asia, they are kept as pets. As a result, escaped birds have formed feral populations in many countries such as Taiwan.



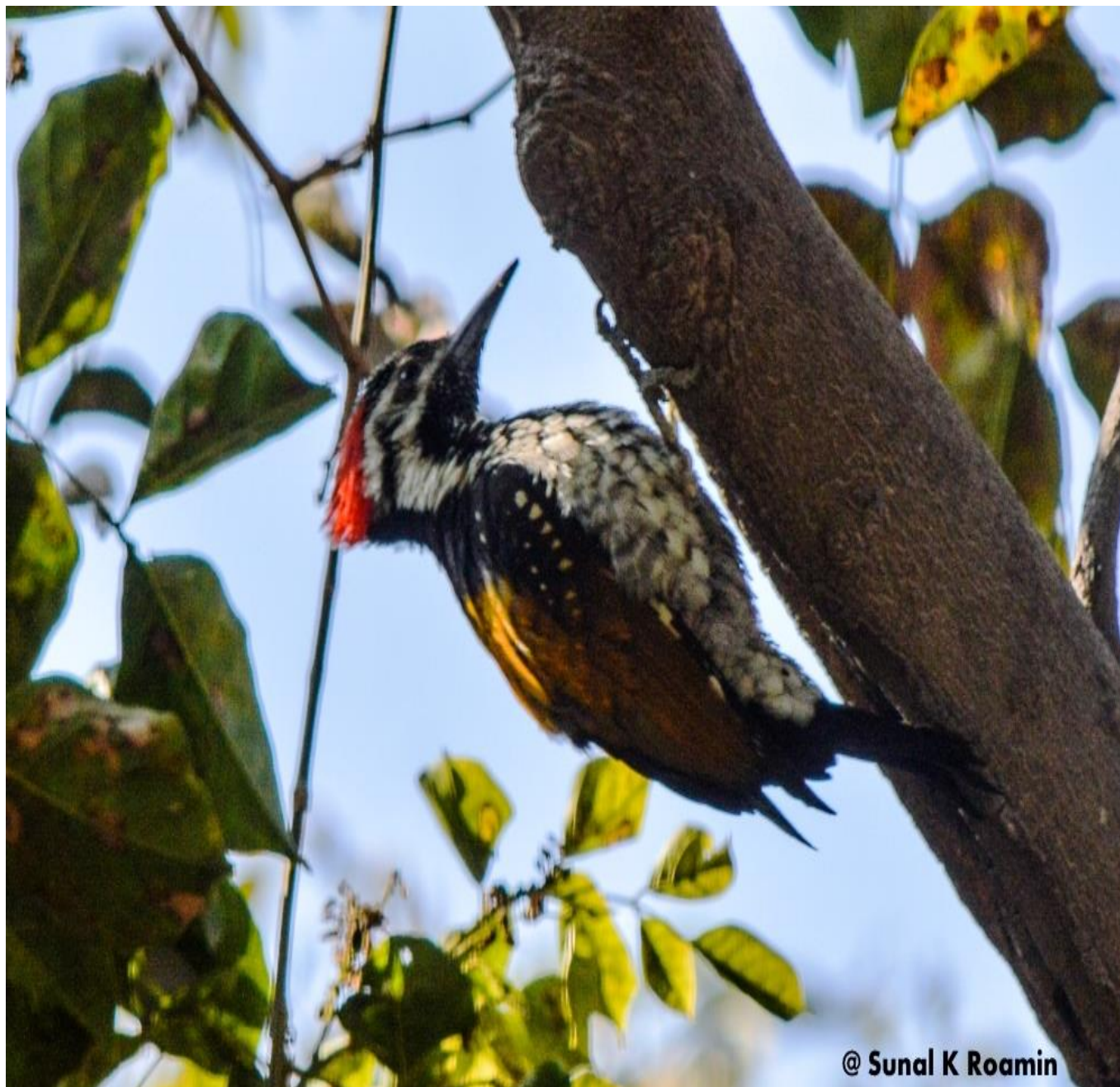
@ Sunal K Roamin

Zoological Description

Common Name : Large Grey Babbler

Scientific Name : *Turdoides malcolmi*

The large grey babbler is a member of the *Leiothrichidae* family found in India and Nepal. They are locally common in the scrub, open forest and garden land. They are usually seen in small groups and are easily distinguished from other babblers in the region by their nasal call and the whitish outer feathers to their long tail. It is one of the largest babblers in the region. Found throughout the Indian subcontinent, south of the Himalayas, east of the Thar desert until Bihar. The species is not found in Kerala and records from the Sind area are not confirmed. It is found mainly in open dry scrub forest and cultivated areas. It is not found in the eastern dry zone of Tamil Nadu, however an exhausted specimen has been observed in Pondicherry. They feed mainly on insects but also feed on small lizards, molluscs and arachnids. They also feed on seeds, grains and berries.



Zoological Description

Common Name : Lesser Goldenback Woodpecker

Scientific Name : *Dinopium benghalense*

Wide spread resident in India, but higher Himalayas. Light forest, plantations grooves in open country. It is 26 -29 cm long. Voice single strident klerk and a whinnying kyi-kyi-kyi. This bird is found mainly on the plains going up to an elevation of about 1200m in Pakistan, India south of the Himalayas and east till the western Assam valley and Meghalaya, Bangladesh and Sri Lanka. It is associated with open forest and cultivation. They are often seen in urban areas with wooded avenues. It is somewhat rare in the Kutch and desert region of Rajasthan.



Zoological Description

Common Name : Oriental Magpie Robin

Scientific Name : *Copsychus saularis*

Widespread resident but unrecorded in most of the northwest. Garden, groves and open broadleaved forest. It is 20 cm long. Voice is spirited, clear and varied whistling songs. Magpie-robin is a resident breeder in tropical southern Asia from Bangladesh, interior India, Sri Lanka and eastern Pakistan east to Indonesia, Thailand, south China, Malaysia, and Singapore. They have been introduced to Australia. The oriental magpie-robin is found in open woodland and cultivated areas often close to human habitations. The diet of magpie robins includes mainly insects and other invertebrates. Although mainly insectivorous, they are known to occasionally take flower nectar, geckos, leeches, centipedes and even fish.



Zoological Description

Common Name : Plain Prinia

Scientific Name : *Prinia inornata*

The plain Prinia, or white-browed wren-warbler is a resident breeder from Pakistan and India to south China and southeast Asia. This skulking passerine bird is typically found in wet lowland grassland, open woodland, scrub and sometimes gardens. The plain Prinia builds its nest in a shrub or tall grass and lays three to six eggs. These 13–14-cm long warblers have short rounded wings, a longish tail, strong legs and a short black bill. In breeding plumage, adults are grey-brown above, with a short white supercilium and rufous fringes on the closed wings. Under parts are whitish-buff. The sexes are identical. In winter, the upperparts are a warmer brown, and the under parts more buff. The tail is longer than in summer. There are a number of races differing in plumage shade. The endemic race in Sri Lanka retains summer plumage, including the shorter tail, all year round. Like most warblers, the plain prinia is insectivorous. The song is a repetitive tlee-tlee-tlee.



Zoological Description

Common Name : Purple Sunbird

Scientific Name : *Cinnyris asiaticus*

Widespread resident but unrecorded in parts of Northeast and Northwest subcontinent. Open deciduous forest and gardens. It is 10 cm long. The species is distributed widely from West Asia through the Indian subcontinent and into Southeast Asia. They are resident birds in most parts of their range and do not move large distances. They are found in thin forest and garden land, including those in dense urban areas. Local movements are however noted especially in the drier parts of north western India and Pakistan where they are said to arrive in large numbers before summer. They are known to feed on small berries such as those of *Salvadora persica*. They have also been known to feed on cultivated grapes. Insects are sometimes caught by fly catching.



Zoological Description

Common Name : Red Vented Bulbul

Scientific Name : *Pycnonotus cafer*

Widespread resident. Found in open deciduous forest, secondary growth, gardens and light scrub. It is 20 cm long. Voice Utters a cheery be-care-ful or be quick-quick; alarm call is a sharp repetitive peep. This bird is native from Pakistan to China, and has brown to black upperparts and breast. It has a shiny black head, small crest, buff belly, white rump and upper tail coverts, and red under tail coverts. It has a white-tipped, brown-black tail, and brown-black legs and feet. It feeds mostly on soft fruits, berries, seeds and nectar. Takes a strong and direct flight. Sexes are similar. Red-vented bulbuls feed on fruits, petals of flowers, nectar, insects and occasionally geckos. They have also been seen feeding on the leaves of *Medicago sativa*.



Zoological Description

Common Name : Red Whiskered Bulbul

Scientific Name : *Pycnonotus jocosus*

Widespread resident, open forest, scrub jungle, gardens, orchards and bushes around villages and cultivation. It is 20 cm long. Voice call includes a lively Pettigrew or kick-pettigrew. This is a bird of lightly wooded areas, more open country with bushes and shrubs, and farmland. It has established itself in Australia, Los Angeles, Hawaii, and Florida in the United States, and in the Mauritius, Assumption Island https://en.wikipedia.org/wiki/Red-whiskered_bulbul_-_cite_note-15 and Mascarene Islands. In Florida, it is only found in a small area, and its population could be extirpated easily. The red-whiskered bulbul feeds on fruits (including those of *Cascabela thevetia* that are toxic to mammals), nectar and insects.

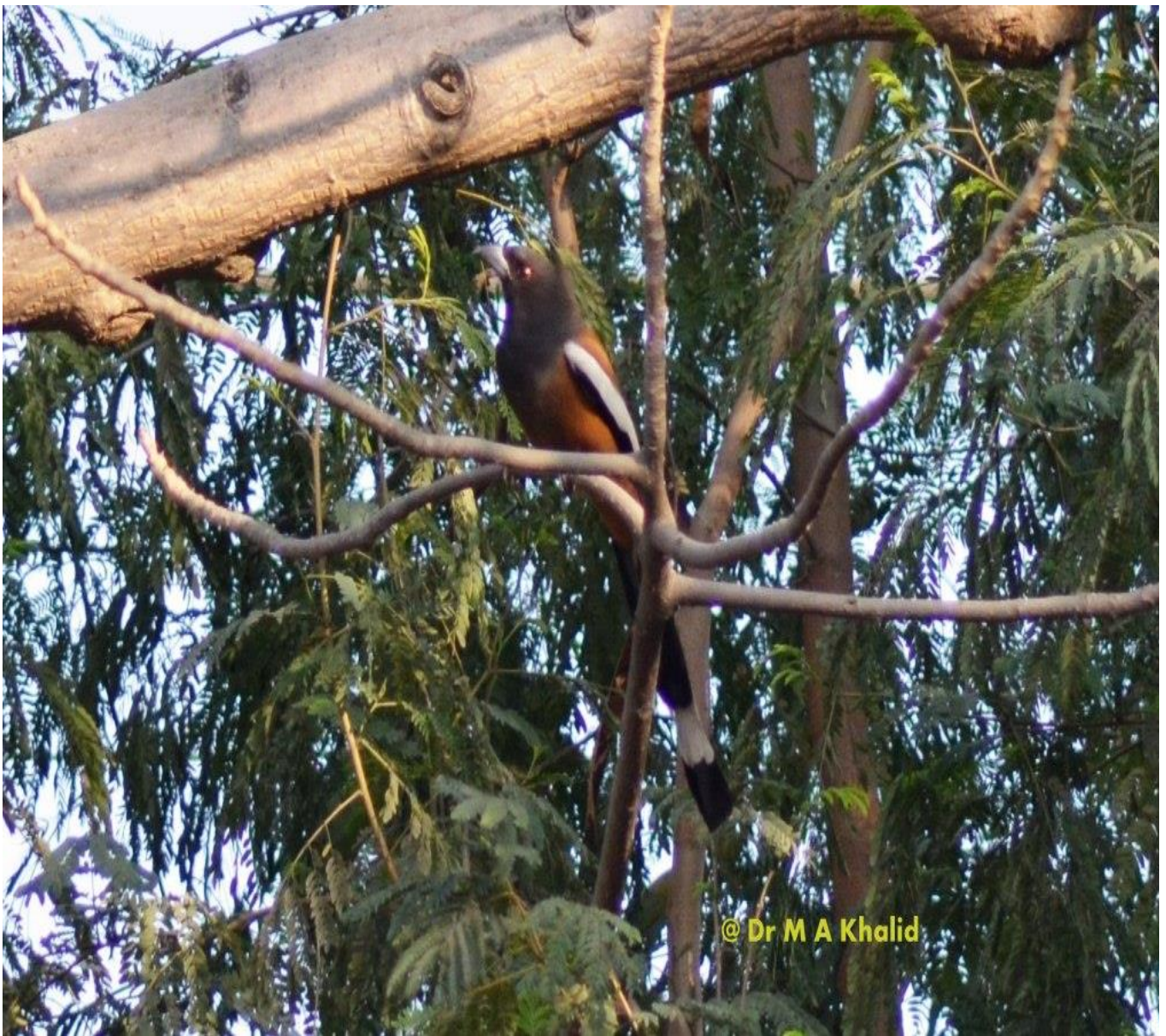


Zoological Description

Common Name : Rose Ringed Parakeet

Scientific Name : *Psittacula krameri*

The rose-ringed parakeet also known as the ring-necked parakeet, is a gregarious tropical Afro-Asian parakeet species that has an extremely large range. The rose-ringed parakeet is sexually dimorphic. The adult male sports a red or black neck ring and the hen and immature birds of both sexes either show no neck rings, or display shadow-like pale to dark grey neck rings. Both sexes have a distinctive green colour. Rose-ringed parakeets measure on average 40 cm in length, including the tail feathers, a large portion of their total length. In the wild, this is a noisy species with an unmistakable squawking call. It is herbivorous and not migratory. Species have successfully adapted to living in disturbed habitats, due to which it has withstood the onslaught of urbanization and deforestation. As a popular pet species, escaped birds have colonised a number of cities around the world. Since the population appears to be increasing, the species was evaluated as being of least concern by the IUCN in 2012, but its popularity as a pet and unpopularity with farmers have both reduced its numbers in some parts of its native range.



Zoological Description

Common Name : Rufous Tree Pie

Scientific Name : *Dendrocitta vagabunda*

Widespread resident; It is unrecorded in Sri-lanka. Open wooded country. It is 46-50 cm long. Voice variety of metallic and mewing notes, often mixed with harsh rattling cry. The range of this species is quite large, covering all of mainland India up to the Himalayas, and south-easterly in a broad band into Burma (Myanmar), Laos, and Thailand in open forest consisting of scrub, plantations and gardens. The rufous treepie is an arboreal omnivore feeding almost completely in trees on fruits, seeds, invertebrates, small reptiles and the eggs and young of birds. It is an agile forager, clinging and clambering through the branches and sometimes joining mixed hunting parties along with species such as drongos and babblers. It has been observed feeding on ecto-parasites of wild deer. Like many other corvids they are known to cache food. They have been considered to be beneficial to palm cultivation in southern India due to their foraging on the grubs of the destructive weevil *Rhynchophorus ferrugineus*. They are known to feed on the fruits of *Trichosanthes palmata* which are toxic to mammals.



Zoological Description

Common Name : Yellow-bellied Prinia

Scientific Name : *Prinia flaviventris*

Resident. Fairly widespread in North subcontinent. Found in tall grasses and wooded forest. It is 13 cm long. Voice song a sharp chirp followed by a five-note trill. Yellow-bellied Prinias eat insects for which they forage actively among low bushes or tall grass. These active, slender birds may hop up grass stems to scan the surroundings, making lively and loud calls. But at the slightest sign of danger, they dive down into the tall grass, or flies low over the grass-tops for a short distance before dropping into cover.



Zoological Description

Common Name : Yellow footed Green Pigeon

Scientific Name : *Treron phoenicopterus*

Widespread resident; unrecorded in most of Himalayas and northwest. Deciduous forest and fruiting trees around villages and cultivation. It is 33 cm long. Voice a mellow, wandering whistle; also a subdued gurgling. Yellow-footed Green Pigeon feeds on fruits largely fruits from Ficus. They fly in flocks.



Botanical Description

Botanical Name : *Roystonea regia*

Common Name : Bottle Palm, Royal Palm

Family : Arecaceae

In cultivation, the tree is called the Cuban royal palm or simply the royal palm. Its populations native to Florida are called Florida royal palms. In Cuba, the tree is called the *palma real* or *palma criolla*. It is widely cultivated in India and is called *vakka*. This tree is distributed in southern Florida, Mexico, Central America, Cuba, and Puerto Rico. The tree is used as avenue tree and is ornamental.



Botanical Description

Botanical Name : *Polyalthia longifolium*

Common Name : False Ashoka

Family : Annonaceae

False Ashoka is a lofty evergreen tree. *Polyalthia* is derived from a combination of Greek words meaning ‘many cures’ with reference to the medicinal properties of the tree, while *Longifolia*, in Latin, refers to the length of its leaves. Its common names include *Ashoka* in Hindi , *Debdaru* in Bengali , *Asopav* in Gujarati and *Ashok* in Marathi. It is widely distributed in India and Sri Lanka. It is introduced in gardens in many tropical countries around the world



Botanical Description

Botanical Name : *Caryota urens*

Common Name : Toddy Palm

Family : Arecaceae

It belongs to the palm family mainly from Singapore, Eastern Burma and some other places in India. It grows mainly in open fields of hot areas and some rainforest areas also. It is commonly called toddy palm or wine palm, because it is used to prepare wine. It is also known as jaggery palm because of its use in preparation of jaggery.



Botanical Description

Botanical Name : *Mimusops elengi*

Common Name : Maulsari

Family : Sapotaceae

It is a medium-sized evergreen tree found in tropical forests in South Asia, Southeast Asia and northern Australia. English common names include Spanish cherry, medlar and bullet wood. It is called *maulsari* in Hindi. Plant was well studied in majority of the world because of its high potential medicinal value. Traditionally all different part of this plant, namely leaf, root, fruit, seed, bark and flower are used to cure various kinds of disorders.



Botanical Description

Botanical Name : *Psidium guajava*

Common Name : Amrood

Family : Myrataceae

It is grown successfully in tropical and subtropical regions up to 1500m (5000 feet) above sea-level. It was later adopted as a crop in Asia and Africa. Now it occurs throughout the Pacific islands. Generally, it is a home fruit tree or planted in small groves, except in India where it is a major commercial resource in southern India.



Botanical Description

Botanical Name : *Tinospora cordifolia*

Common Name : Giloy

Family : Menispermaceae

It is known by the common names Heart-leaved Moonseed, Guduchi and Giloy. It is also commonly known as “Amrita” or “Guduchi”. Giloy is an important drug of Indian Systems of Medicine. The species is indigenous to the tropical areas of India, Myanmar and Sri Lanka. It is used to treat Jaundice, diabetes and rheumatoid arthritis.



Botanical Description

Botanical Name : *Lawsonia inermis*

Common Name : Mehndi

Family : Lythraceae

It is also known as hina, the henna tree, the mignonette tree, It is a flowering plant and the sole species of the *Lawsonia* genus. The English name "henna" comes from the Arabic, Hindi (mehndi). Henna is a tall shrub or small tree, standing 1.8 to 7.6 m tall (6 to 25 ft). It is glabrous and multi-branched, with spine-tipped branchlets. The leaves grow opposite to each other on the stem. The name *henna* also refers to the dye prepared from the plant and the art of temporary body art (staining) based on those dyes.



Botanical Description

Botanical Name : *Thevetia peruviana*

Common Name : Yellow Oleander

Family : Apocynaceae

It is a poisonous plant native to central and southern Mexico and Central America, It is a relative of *Nerium oleander*, giving it a common name **yellow oleander**, and is also called **lucky nut**.

It is an evergreen tropical shrub or small tree. Its leaves are willow-like, linear-lanceolate, and glossy green in color. They are covered in waxy coating to reduce water loss (typical of oleanders). Its stem is green turning silver/gray as it age. It is widely cultivated as an ornamental plant.



Botanical Description

Botanical Name : *Prosopis spicigera*

Common Name : Sami

Family : Fabaceae

It is commonly known as ‘Sami’ and ‘Shami’ in Hindi .It is a species of flowering tree in the family Fabaceae. It is native to arid portions of Western Asia and the Indian subcontinent, including Afghanistan, Iran, India, Oman, Pakistan, Saudi Arabia, the United Arab Emirates, and Yemen. It is referred to as the “Golden tree of the Indian desert, widely used in construction of houses and making agriculture implements. It is traditionally used in treating muscular and joint pain, leprosy and piles.



Botanical Description

Botanical Name : *Thuja occidentalis*

Common Name : White Cedar

Family : Cupressaceae

It is an evergreen coniferous tree, of the Cypress family Cupressaceae, which is native to eastern Canada and much of the north, central and upper Northeastern United States, The species was first described by Carl Linnaeus in 1753, and the binomial name remains currently applicable. It is widely cultivated as an ornamental plant.



Botanical Description

Botanical Name : *Cocculus hirsutus*

Common Name : Farid Buti/Moon seeds

Family : Menispermaceae

It is also known as: broom creeper, ink berry, Hindi farid buti. Leaves are 4-8 cm long, 3-5 lobed heart shaped. The juice of the ripe fruit yield a permanent bluish purple ink. The roots as well as leaves are used as native medicines and as tonic. It is used against the poison of viper and keeps the kidney working in the victims of viper.



Botanical Description

Botanical Name : *Lantana camara*

Common Name : Lantanas

Family : Verbenaceae

It is a species of flowering plant within the Verbena family, Verbenaceae, that is native to the American tropics. *Lantana camara* is a low erect or subscandent, vigorous shrub with stout recurved prickles and a strong odour of black currents. Lantana is present in many Pacific Island nations. On the Pacific rim it occurs in Australia, New Zealand, China, Thailand, Cambodia, Viet Nam, Malaysia, Indonesia, and the Philippines. It has been used traditionally as herbal medicines for treating skin itches, leprosy, rabies, chicken pox, asthma and ulcers.



Botanical Description

Botanical Name : *Azadirachta indica*

Common Name : Neem

Family : Meliaceae

It is also known as Neem, Nim tree and Indian Lilac. It is a tree in the mahogany family Meliaceae .It is one of two species in the genus *Azadirachta* and is native to India, Nepal, Pakistan, Bangladesh and Sri Lanka. It is typically grown in tropical and semi-tropical regions of the world. Neem trees now also grow in islands located in the southern part of Iran. Its fruits and seeds are the source of neem oil which are of great medicinal importance besides being used as insecticides.



Botanical Description

Botanical Name : *Withania somnifera*

Common Name : Ashwagandha

Family : Solanaceae

It is known commonly as *Ashwagandha*, Indian ginseng, poison gooseberry, or winter cherry. It is a plant in the Solanaceae or nightshade family. Several other species in the genus *Withania* are morphologically similar. *Withania somnifera* is cultivated in many of the drier regions of India, such as Mandsaur District of Madhya Punjab, Gujarat and Rajasthan, It is also found in Nepal, China and Yemen. It is used as a herb in Ayurvedic medicine. Ashwagandha is used as a herb in Ayurvedic medicine.



Botanical Description

Botanical Name : *Cordia dichotoma*

Common Name : Lasura

Family : Boraginaceae

It is a small to moderate size plant of family Boraginaceae commonly called bhokar, lasura, gonda, Indian cherry and shlesmataka. *C. dichotoma* is commonly present in tropical and subtropical regions. It grows in the sub-Himalayan tract and outer ranges, ascending up to about 1 500 m elevation. It is found in dry deciduous forests of Rajasthan to the moist deciduous forests of Western Ghats in India and tidal forests in Myanmar.



Botanical Description

Botanical Name : *Phyllanthus emblica*

Common Name : Amla

Family : Phyllanthaceae

It is also known as *Emblica officinalis*, emblic, emblic myrobalan, myrobalan, Indian gooseberry, Malacca tree, or amla, amalika (Samslrot). It is a deciduous tree of the family Phyllanthaceae. It is known for its edible fruit of the same name. It grows in tropical and subtropical parts of China, India, Indonesia and on the Malay Peninsula and indigenous to tropical India and Southeast Asia. It is used in the preparation of Triphala and an effective plant to cure constipation and other gut related problems.



Botanical Description

Botanical Name : *Eucalyptus globulus*

Common Name : Eucalypts, Safeda

Family : Myrtaceae

It is a diverse genus of flowering trees and shrubs (including a distinct group with a multiple-stem mallee growth habit) in the myrtle family, Myrtaceae. The more than 700 species of eucalyptus are mostly native to Australia, and a very small number are found in adjacent areas of New Guinea and Indonesia. It is grown along the road sides and as commercially important species used for volatile oil and timber.



Botanical Description

Botanical Name : *Balanites roxburghii*

Common Name: Hingoli

Family : Zygophyllaceae

It is a spiny, evergreen tree. It is common in open sandy plains of the Indian peninsula, western Rajasthan, west Bengal, Maharashtra and drier parts of India. Bark, fruit seed, leaves of the tree are used to extract oils of medicinal importance. It is traditionally used in jaundice, intestinal worm infections, wounds, malaria, syphilis, epilepsy, dysentery, and asthma.



Botanical Description

Botanical Name : *Casuarina equisetifolia*

Common Name : Casurina

Family : Annonaceae

It is known as Australian pine tree. The native range extends from Burma and Vietnam, throughout Malaysia east to French Polynesia, New Caledonia and New Caledonia. *Casuarina* is widely used as a bonsai subject. They are grown for erosion prevention and in general as wind breaking elements. Plants cultivated in Indonesia and Taiwan are known best in the bonsai world.



Botanical Description

Botanical Name : *Oxalis corniculata*

Common Name : Champa Methi

Family : Oxalidaceae

It is creeping wood sorrel, also called procumbent yellow-sorrel or sleeping beauty, resembles the common yellow wood sorrel, *Oxalis stricta*. It is a somewhat delicate-appearing, low-growing, herbaceous plant of the family Oxalidaceae. It has a narrow, creeping stem that readily roots at the nodes. The trifoliate leaves are subdivided into three rounded leaflets and resemble a clover in shape. This species is cosmopolitan in its distribution, and its place of origin is unknown, but it is considered an Old World plant. It is regarded as a weed in gardens, agricultural fields, and lawns.



Botanical Description

Botanical Name : *Haemelia patens*

Common Name : Fire bush

Family : Rubiaceae

It is a large perennial shrub or small tree in the coffee family, Rubiaceae, that is native to the American subtropics and tropics. Its range extends from Florida in the southern United States to as far south as Argentina. It is cultivated mainly for ornamental purposes. The plants are used in folk medicines against a large of ailments. It is also valued for the leaves which are used in skin ailments.



Botanical Description

Botanical Name : *Solanum nigrum*

Common Name : Makoi

Family : Solanaceae

It is native to Eurasia and introduced in the America, Australia, Asia and south Africa. Parts of this plant can be toxic to livestock and humans, and it is considered a weed. Nonetheless, ripe berries and cooked leaves of edible strains are used as food in some locales, and plant parts are used as a traditional medicine. A tendency exists in literature to incorrectly refer to many of the other "black nightshade" species as "*Solanum nigrum*"



Botanical Description

Botanical Name : *Hibiscus rosa sinensis*

Common Name : Gudhal

Family : Malvaceae

It is also known colloquially as Chinese hibiscus, China rose, https://en.wikipedia.org/wiki/Hibiscus_rosa-sinensis - cite note-GRIN-2 Hawaiian hibiscus, and shoe black plant, is a species of tropical hibiscus, a flowering plant in the Hibisceae tribe of the family Malvaceae, native to East Asia. *Hibiscus rosa-sinensis* is a bushy, evergreen shrub or small tree growing 2.5–5 m (8–16 ft) tall and 1.5–3 m (5–10 ft) wide, with glossy leaves and solitary, brilliant red flowers in summer and autumn. The 5-petaled flowers are 10 cm (4 in) in diameter, with prominent orange-tipped red anthers. It is locally known as Goodhar/Goodhal and is a useful Ayurvedic medicine.



Botanical Description

Botanical Name : *Ailanthus excelsa*

Common Name : Trees of God or Heaven

Family : Simaroubaceae

It is a lofty deciduous tree, though it is widely distributed in the country, it grows in the semi-arid and semi-moist regions. It is a large deciduous tree 18-25m tall, trunk straight, 60-80 cm in diameter, leaves alternate, pinnately compound, large and 30-60 cm long. Bark is used against fever. It has a role in treatment of diabetes and act as phytotoxic, cytotoxic and anti-insect *agent*.



Botanical Description

Botanical Name : *Morus alba*

Common Name : White Mulberry/Shah Tut

Family : Annonaceae

It is known as **white mulberry**, It is a short-lived, fast-growing, small to medium-sized mulberry tree, which grows to 10–20 m tall. The species is native to northern China. It exhibits antibacterial activity against food poisoning microbes. It has also neuro protective effects.



Botanical Description

Botanical Name : *Nyctanthes arbor-tristis*

Common Name : Harsingar

Family : Oleaceae

It is a species of *Nyctanthes*, native to South Asia and Southeast Asia. The flowers are fragrant, with a five- to eight-lobed white corolla with an orange-red centre; they are produced in clusters of two to seven together, with individual flowers opening at dusk and finishing at dawn. The fruit is a flat brown heart-shaped to round capsule 2 cm diameter, with two sections each containing a single seed. Leaves are used for antimicrobial and antioxidant activities. Fried leaves are used as a recipe in some Bengali and Assamese cuisines.



Botanical Description

Botanical Name : *Cassia fistula*

Common Name : Golden Shower Tree/ Amaltas

Family : Fabaceae

The species is native to the Indian subcontinent and adjacent regions of South East Asia.

It ranges from southern Pakistan eastward throughout India to Myanmar and Thailand and south to Sri Lanka. In literature, it is closely associated with the Mullai (forest) region of Sangam landscape. It is the national tree of Thailand, and its flower is Thailand's national flower. It is also the state flower of Kerala in India and of immense importance amongst the Malayali population. It is known as aragvadhs, meaning “disease killer” and also used as purgative.



Botanical Description

Botanical Name : *Ipomoea obscura*

Common Name : Laksmana

Family : Convolvulaceae

It is known as 'Laksmana' in Ayurveda and belongs to the family Convolvulaceae. It is small climbing vine, with small cordate leaves and acuminate apex. Corolla composed of five fully fused petals. Plant grows on fences or low ground cover as substratum in disturbed areas.



Botanical Description

Botanical Name : *Alstonia scholaris*

Common Name : Saptaparni

Family : Annonaceae

It is commonly called as Indian devil tree. It has been used as folklore medicines, possesses different pharmacological activities and potentially used as antimalaria drug such as Ayush-64, NRDC. In alternative medicinal systems it is effective against different ailments such as asthma, malaria, fever, dysentery, diarrhoea, epilepsy, skin diseases and snakebite. Latex is useful in application in ulcers, sores, tumors and rheumatoid pain. Fruits are useful in syphilis and epilepsy and also used a tonic, antiperiodic and Anthelmintic.



Botanical Description

Botanical Name : *Aegle marmelos*

Common Name : Bael Patthar

Family : Rutaceae

It is plant indigenous to India and has been used by the inhabitants of the Indian subcontinent for over 5000 years. Bael fruits are of dietary use and the fruit pulp is used to prepare delicacies like murabba, puddings and juice. Bael fruits are also used in the treatment of chronic diarrhea, dysentery, and peptic ulcers, as a laxative and to recuperate from respiratory affections in various folk medicines. Scientific studies have validated many of the ethnomedicinal uses and reports indicate that the fruit possesses broad range of therapeutic effects and radio-protective effects.



Botanical Description

Botanical Name : *Calotropis procera*

Common Name : Akra

Family : Apocynaceae

It is a species of flowering plant in the dogbane family, Apocynaceae, that is native to North Africa, Tropical Africa, Western Asia, South Asia, and Indochina. The green globes are hollow but the flesh contains a toxic milky sap that is extremely bitter and turns into a gluey coating resistant to soap. Common names for the plant include apple of Sodom, Sodom apple, stabragh, kapok tree, king's crown, rubber bush, or rubber tree. The name apple of Sodom derives from the Hebrew *Tapuah Sdom*. It is used as potent antibacterial, antifungal and cytotoxic agent.



Botanical Description

Botanical Name : *Ziziphus oenoplia*

Common Name : Jhad

Family : Rhamnaceae

It is commonly known as the Jackal Jujube, Small-fruited Jujube or Wild Jujube, is a flowering plant with a broad distribution through tropical and subtropical Asia and Australasia. It is a spreading, sometimes climbing, thorny shrub growing to 1.5 m in height. The leaves are simple, alternate, ovate-lanceolate, acute and oblique. The flowers are green, in subsessile axillary cymes. The fruit is a globose drupe, black and shiny when ripe, containing a single seed. It has anticancer properties and traditionally used to treat urinary tract infections and sexually transmitted diseases.



Botanical Description

Botanical Name : *Tribulus terrestris*

Common Name : Gokhru

Family : Zygophyllaceae

It is an annual plant in the caltrop widely distributed around the world, that is adapted to grow in dry climate locations in which few other plants can survive. Its extracts are widely used by body builders and to enhance immunity.



Botanical Description

Botanical Name : *Ziziphus jujuba*

Common Name : Ber

Family : Rhamnaceae

It is commonly called jujube sometimes jujuba, red date, Chinese date, Korean date, or Indian date. It is a species of *Ziziphus* in the buckthorn family , Rhamnaceae. It is used primarily as a shade tree that also bears fruit. Betulinic acid is isolated from this species, used for cytotoxicity against melanoma cell lines.



Botanical Description

Botanical Name : *Senna siamea*

Common Name : *Cassia tree*

Family : Fabaceae

It is a medium-size, evergreen tree growing up to 18 m with beautiful yellow flowers. In Thailand it is the provincial tree of Chaiyaphum Province and some places in the country are named after it. Leaves are alternate, pinnately compound, with slender, green-reddish, tinged axis and 6 to 12 pairs of leaflets on short stalks, rounded at both ends. . It is often used as shade tree in cocoa, coffee and tea plantations. This plant has medicinal value and it contains a compound named Barakols also used as fodder plant, in written cropping system, wind breaks and shelter belts.



Botanical Description

Botanical Name : *Launaea nudicaulis*

Common Name : Gobi

Family : Asteraceae

It is an important plant species of this genus and in Saudi Arabia. It is one of the most fairly widespread plants, famous with its local Arabic name 'Al-Hewa'. It is a perennial naked-stemmed herb containing yellow flowers of about 2 cm wide with sweet scent and is frequently and popularly used in folk medicine by local people for the treatment of fever, itches, ulcers, cuts, swellings, toothache, eczema eruptions and rheumatism. Its other potent biological activities include insecticidal, cytotoxic, antimicrobial, hypoglycaemic and anti-inflammatory activities



Botanical Description

Botanical Name : *Pongamia pinnata*

Common Name : Karanj (Bio-diesel plant)

Family : Leguminosae

It is a medium sized glabrous, perennial tree grows in the littoral regions of South eastern Asia, especially it is an exotic. It grows easily from seed. Historically, this plant has long been used in India and neighboring regions as a source of traditional medicines, animal fodder, green manure, timber, fish poison and fuel. Extract of the plant possesses significant anti-diarrhoeal, anti-fungal, anti-plasmodial, anti-ulcerogenic, anti-inflammatory and analgesic activities. Its oil is a source of biodiesel. It has also alternative source of energy, which is renewable, safe and non-pollutant.



Botanical Description

Botanical Name : *Quiqualis indica*

Common Name : Rangoon creeper

Family : Annonaceae

It is found in Asia. It is found in many other parts of the world either as a cultivated ornamental plants. It is principally known for its astringent and anthelmintic properties. Fruits are eaten to expel intestinal worms and to stop diarrhoea. The roots are used to cure cough and hiccups.



Botanical Description

Botanical Name : *Putranjiva roxburghii*

Common Name : Putra jeevak

Family : Putranjivaceae

It is native to Southeast Asia, the Indian Subcontinent, Japan, southern China, and New Guinea. It is a evergreen tree with pendant branches, attaining a height of up to 18 meter and a girth of 2 meter, found in wild or cultivated almost in all parts of India. It is one of the best herbs with rejuvenative and restorative properties for the female reproductive system.



Botanical Description

Botanical Name : *Achyranthes aspera*

Common Name : Chirchita

Family : Amaranthaceae

It is a species of plant in the Amaranthaceae family. It is distributed throughout the tropical world. It can be found in many places growing as an introduced species and a common weed. It is an invasive species in some areas, including many Pacific Islands environments.

It is an important medicinal herb found as a weed throughout India almost all of its parts are used in traditional systems of medicines. Seeds, roots and shoots are the most important parts, used for its medicinal attributes.



Botanical Description

Botanical Name : *Abutilon indicum*

Common Name : Kanghi

Family : Malvaceae

Indian Abutilon, Indian is a small, native to tropic and subtropical regions and sometimes cultivated as an ornamental. This plant is often used as a medicinal plant and is considered invasive on certain tropical islands. The whole plant is uprooted, dried and is powdered. In ancient days, maidens were made to consume a spoonful of this powder with a spoonful of honey, once in a day, for 6 months until the day of marriage, for safe and quick pregnancy.



Botanical Description

Botanical Name : *Trapaeolum majus*

Common Name : Monk cress

Family : Trapaeolaceae

It is a flowering plant , originated in the Andes from Bolivia north to Colombia. It is not closely related to the genus *Nasturtium* (which includes watercress). Flowers are 2.5–6 cm diameter, with five petals, eight stamens, and a 2.5–3 cm long nectar spur at the rear; they vary from yellow to orange to red, frilled and often darker at the base of the petals. The fruit is 2 cm broad, three-segmented, each segment with a single large seed 1–1.5 cm long. It is mainly cultivated for its ornamental value.



Botanical Description

Botanical Name : *Amaranthus viridis*

Common Name : Jungli Chauli

Family : Amaranthaceae

It is a cosmopolitan species in the botanical family Amaranthaceae and is commonly known as slender amaranth or green amaranth. *Amaranthus viridis* is eaten in Northeastern Indian state Manipur where it is known as *Cheng-kruk* and eaten traditionally as a vegetable in South India, especially in Kerala. It is a common vegetable in Bengali cuisine and is called "note shak" ("shak" means leafy vegetable).



Botanical Description

Botanical Name : *Annona squamosa*

Common Name : Sharipha

Family : Annonaceae

It is a small, well-branched tree or that bears edible fruits called sugar-apples. It is a small, semi-(or late) deciduous much branched shrub or small tree 3 metres (9.8 ft) to 8 metres (26 ft) tall very similar to soursop (*Annona muricata*). The fruit of *A. squamosa* (sugar-apple) has delicious whitish pulp, and is popular in tropical markets. *Annona squamosa* is native to the tropical Americas and West Indies, but the exact origin is unknown, in hindi it is called *sharifa* or *sitaphal*.



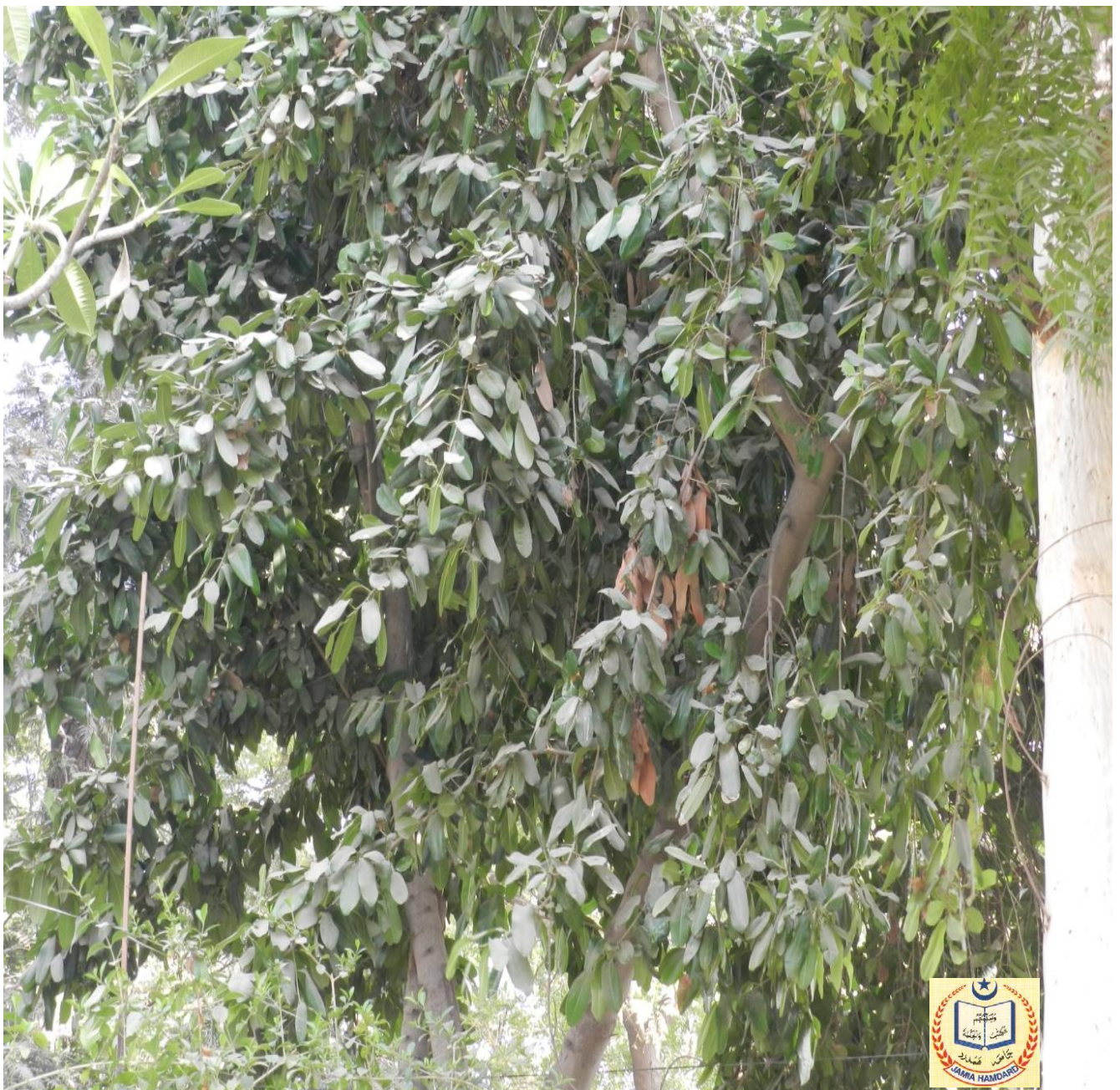
Botanical Description

Botanical Name : *Plumeria acuminata*

Common Name : Perungalli

Family : Apocynaceae

It is used as medicinal plant native to Mexico, Central America, the Caribbean and South America spreaded throughout the tropics. About eight species are known in India. This plant is widely distributed all over the world among tropical region especially in southern part of India. In the traditional medicine system bark is used as purgative and febrifuge, the latex is used for itching with coconut oil, the flower is used as contraceptive etc



Botanical Description

Botanical Name : *Manilkara hexandra*

Common Name : Palu

Family : Sapotaceae

It is a species is native to much of south Asia. The bark is grayish black and rough. The wood is very hard, heavy, and very durable, weighing 70 pounds per cubic foot. The bark colour ranges from dark pink to dark purple. It is used for heavy structural work, gate posts, and big beams. *M. hexandra* is a slow-growing evergreen tree that grows in tropical and temperate forests. The fruit can be eaten fresh or dried. A sweet flavor but somewhat astringent. The bark is added to palm sugar to inhibit fermentation.



Botanical Description

Botanical Name : *Ricinus communis*

Common Name : Arand, Castor plant

Family : Euphorbiaceae

It is the castor oil plant, is a species of flowering plant in the spurge family. The evolution of castor and its relation to other species are currently being studied using modern genetic tools. Its seed is the castor bean, which, despite its name, is not a true bean. Castor is indigenous to the southeastern Mediterranean Basin, Eastern Africa, and India, but is widespread throughout tropical regions. In area with suitable climate, castor establishes itself easily where it can become an invasive plant and therefore is often to be found as wasteland.



Botanical Description

Botanical Name : *Sida cordifolia*

Common Name : Bijband

Family : Malvaceae

It is a perennial subshrub of the mallow family, native to India. It has naturalized throughout the world, and is considered an invasive weed in Africa, Australia, the southern United States, Hawaiian Islands, New Guinea, and French Polynesia. The specific name, *cordifolia*, refers to the heart-shaped leaf. The plant is used for the treatment of inflammation of the oral mucosa, asthmatic bronchitis and nasal congestions.



Botanical Description

Botanical Name : *Moringa oleifera*

Common Name : Sonjna

Family : Moringaceae

It is the most widely cultivated species of the genus *Moringa*, which is the only genus in the family Moringaceae. English common names include: moringa, drumstick tree, horseradish tree (from the taste of the roots, which resembles horseradish), ben oil tree, or benzoil tree. It is a fast-growing, drought-resistant tree, native to the southern foothills of the Himalayas in northwestern India, and widely cultivated in tropical and subtropical areas where its young seed pods and leaves are used as vegetables. It can also be used for water purification and hand washing, and is sometimes used in herbal medicine.



Botanical Description

Botanical Name : *Catharanthus roseus*

Common Name : Sadabahar

Family : Apocynaceae

It is a long-lived (perennial) sub-shrub which is native to Madagascar. English common names include: Madagascar periwinkle, vinca rosea, etc. The flowers of *Catharanthus roseus* are pollinated by butterflies and moths, this species is self-compatible. In traditional medicine, it has been used for relieving muscle pain, depression of the central nervous system, also used for applying to wasp stings and to heal wounds. Its application ranges widely from the prevention of diabetes to treatment of stomach ache. The alkaloid vincristine found in this plant has a role for treating leukemia in children.



Botanical Description

Botanical Name : *Mimosa pudica*

Common Name : Chuimui

Family : Fabaceae

The stem is erect in young plants, but becomes creeping or trailing with age. It can hang very low and become floppy. It's English name is Touch-Me-Not. *Mimosa pudica* grows most effectively in nutrient poor soil that allows for substantial water drainage. The leaves together with leaves from other medicinal plants are used in treating hemorrhoids and urinary infections. The juice is used in sinus, sores, piles, and fistula, paste is applied to glandular swellings, and hydrocele. Roots treat dysentery, fever, syphilis, leprosy, stomach worms, venereal diseases, insect bite, insomnia, nervousness, and piles.

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