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EIACP Newsletter



Thematic Area: Conservation of Ecological Heritage and Sacred Sites of India

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From the EIACP Desk...

The **Environmental Information, Awareness Capacity Building and Livelihood Programme (EIACP)** at CPREEC of the Ministry of Environment, Forest and Climate Change (MoEF&CC), Government of India is the Programme Centre – Resource Partner (RP) for the thematic area of “*Ecological Heritage and Sacred Sites of India*”.

Heritage is the cultural, social and spiritual legacy that we inherit from our past and pass on to the future. Indian heritage is unique in its reverence for Mother Nature in all her manifestations. Ancient traditions, rituals and practices have embedded this reverence in religion and even in normal day-to-day living. The respect for nature and the belief that every organism on earth has a special role in life’s cycle forms the core of our ecological heritage.

To maintain humankind’s resilience in the face of change, it is necessary to draw on the best available knowledge, regardless of its origins. The process of updating knowledge systems provides opportunities to develop a deeper understanding of observed events and their consequences. It facilitates and leads to a joint assessment of information, resulting in new insights and innovations, and in better informed actions.

The main purpose of this **Newsletter** is to bring forth and publish articles concerning all aspects related to the knowledge of ecological traditions in India as well as novel interpretations and theoretical issues related to the conservation of the same.

This issue covers the articles, “**5 Temples that are Odes to Nature**” and “**Lifestyle for the Environment (LiFE) - Adopt Healthy Lifestyles - Encourage use of indigenous herbs and medicinal plants**”.

5 Temples that are Odes to Nature - Indian traditions nurtured nature as a finite resource. The primordial or cosmic matter of nature is made up of five elements – *prithvi* (earth), *vayu* (air), *apa* (water), *agni* (fire or energy) and *akasha* (space) – better known as the *pancha maha-bhuta*. Their proper balance is essential for the well-being of humankind and maintaining their harmony is a *dharma* or duty. Air and water are essential for our existence. Fire gives energy and space is the nothingness beyond our control and knowledge. **Unfortunately, the contemporary world has forgotten the importance of all this.** In medieval South India, as new dynasties were springing up, trade and urbanisation were growing. To ensure that people did not forget the importance of their surroundings, the ruler and the ruled protected natural resources by giving them sanctity. Enormous temples were built to the five elements of nature. Each was a massive work of art

and a reminder of the immutable *prakriti* to which we owe our harmonious existence.

Lifestyle for the Environment (LiFE) - Adopt Healthy Lifestyles - Encourage use of indigenous herbs and medicinal plants - Indigenous herbs and medicinal plants are an important part of the natural ecosystem, providing important habitats for wildlife and promoting biodiversity. Many local communities rely on these plants for traditional medicine and other uses. Indigenous trees are essential for maintaining a healthy environment, providing a range of benefits such as absorbing carbon dioxide, preventing soil erosion, and providing shade and shelter for wildlife. One of the actions which comes under the Mission LiFE theme, ‘Adopt Healthy Lifestyles’ encourages use of indigenous herbs and medicinal plants. Mission LiFE seeks to channel the efforts of individuals and communities into a global mass movement of positive behavioural change. By taking such actions to protect the environment and promote sustainability, we can help to create a better world for ourselves and future generations.

CPREEC EIACP PC – RP has already published books on the *Ecological Traditions of the sixteen (16) states of India*, The Centre has, over the years, promoted and encouraged communities to adopt local traditions, practices and rituals that possess ecological significance.

The Centre also focuses on eco-restoration, conservation, creation of environmental assets and advocates the sustainable use of natural resources. The Centre has restored several degraded sacred groves in Andhra Pradesh, Karnataka and Tamil Nadu.

The Centre has also documented sacred groves / forests (10,470), sacred gardens (64), sacred plants (94), sacred animals (57), sacred rivers (33), sacred water bodies (365), sacred mountains (203), sacred cities / sites (234), sacred seeds (10), sacred caves (209) and green pilgrimages (20), traditional ecological knowledge (44) and UNESCO World Heritage Sites in India (40) till date.

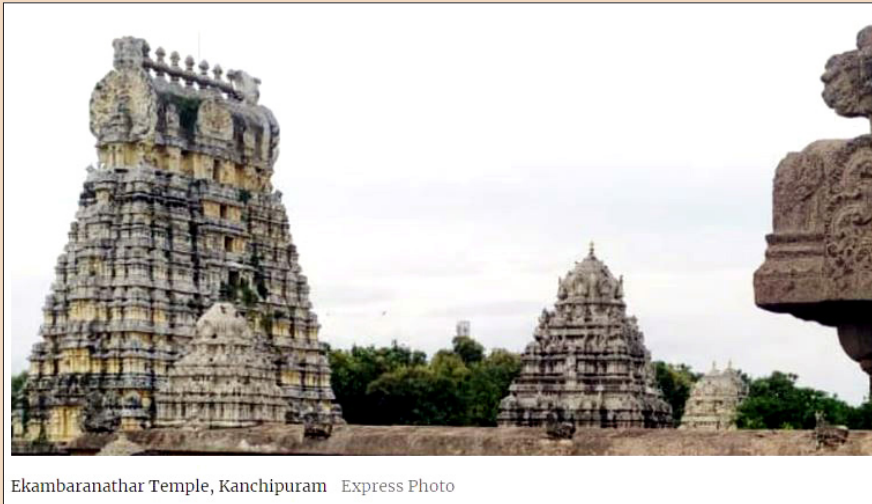
We would like to thank our readers for sharing their articles, photographs and also for their queries and feedback regarding our newsletters, publications and about information provided in our website <http://cpreecenvs.nic.in/>

We cordially invite other scholars and interested persons to share their knowledge and information by contributing popular articles and good quality photographs on the subject areas present on our website.

Cover Story

5 TEMPLES THAT ARE ODES TO NATURE

Nanditha Krishna



Ekambaranathar Temple, Kanchipuram Express Photo

Environmental problems are challenging the entire planet today. Most countries in the northern hemisphere faced their hottest summer this year. The recent landslides in Wayanad are yet another tragedy caused by unchecked deforestation and construction. Human impact on ecology is destroying nature, presaging a frightening future. India is urbanizing in the most unplanned way, destroying the basic resources required for existence. Air pollution, water shortage, desertification and extreme weather conditions have made every season a time to dread.

Indian traditions nurtured nature as a finite resource. The primordial or cosmic matter of nature is made up of five elements – *prithvi* (earth), *vayu* (air), *apa* (water), *agni* (fire or energy) and *akasha* (space) – better known as the *pancha maha-bhuta*. Their proper balance is essential for the well-being of humankind and maintaining their harmony is a *dharma* or duty. Air and water are essential for our existence. Fire gives energy and space is the nothingness beyond our control and knowledge. Unfortunately, the contemporary world has forgotten the importance of all this.

In medieval South India, as new dynasties were springing up, trade and urbanisation were growing. To ensure that people did not forget the importance of their surroundings, the ruler and the ruled protected natural resources by giving them sanctity. Enormous temples were built to the five elements of nature. Each was a massive work of art and a reminder of the immutable *prakriti* to which we owe our harmonious existence.

At Kanchipuram, Shiva is worshipped as Ekambareswarar and is represented by *prithvi* or earth lingam made of mud and sand. To preserve it, oil rather than water and milk are poured for the ritual baths. There are Pallava and Chola inscriptions. The loftiest *gopuram* is the 11-storey southern tower, one of the tallest in India. The temple houses many halls, the most famous being the 1,000-pillared one built in the Vijayanagara period. It is famous for the single mango tree, beneath which, it is believed, Parvati performed penance beside the Vegavati river. It is an imposing structure in one's first view, on entering Kanchipuram.

In the underground water stream of Jambukeshwara temple in Thiruvanaikkaval wallows the *apa* or *water lingam*. Even if the water is pumped out, it returns immediately. This lingam was once situated in a forest of *jambu* or Malabar plum trees. The stream from which grew a plum tree engulfed the *lingam*, hence the name. It is believed that Parvati made the *lingam* from the water of river Kaveri. The massive outer wall covering the fifth precinct stretches over a kilometre and a half, is two feet thick and over 25 feet high. The fourth precinct contains a hall with 1,000 pillars.

At Tiruvannamalai, Shiva is worshiped as Arunachaleshvara or Annamalaiyar, and is represented by the *agni lingam*. The 9th-century Shaiva saint Manikkavachakar composed the Tiruvempaavai here. The temple complex is one of the largest in India. It houses four *gopurams*. During the festival of Karthikai deepam, a huge beacon is lit on the hill that can be seen from far, symbolising the *lingam* of fire reaching the sky. Before each full moon, devotees circumnavigate the Arunachala hill, performing *girivalam*.

Srikalahasti is the site of the *vayu lingam*, celebrating the element of air. This is where Kannappa Nayanaar was prepared to offer his eyes to cover the blood flowing from the *lingam*. The inner temple was constructed around 5th century CE by the Pallavas, and the outer temple in the 11th century by Rajendra Chola and later by Vijayanagara kings. Inside the *sanctum sanctorum*, there is a lamp that remains

permanently lit despite the lack of air. The *lingam* remains clean and untouched, as pure as air. According to legend, Shiva was worshipped by an elephant who sprayed water to keep the premises clean; a spider spun a web to protect the lord from dust; and a snake gave the *lingam* a precious gem.

Chidambaram, which houses the temple of Nataraja, displays the 108 *karanas* from Bharata's *Natya Shastra*. The present temple was built in the 10th century when the town was the capital of the Chola dynasty. After its consecration by the Cholas, Shiva is believed to have appeared as Nataraja and performed the *Ananda tandava* or dance of delight in the golden hall or *pon ambalam*. The temple contains the most subtle of all the elements, *akasha*. It appears as a blank space with a *rahasya* at the back.

All the five temples are imposing structures with exquisite carvings and 1,000-pillared halls, courtyards, sub shrines, water tanks and *gopurams*. The kings of ancient and medieval India ensured that the people were constantly reminded of what they owed to nature. It would help if we remembered their message.

Source: Nanditha Krishna, "5 temples that are odes to nature", The New Indian Express Chennai edition, August 4, 2024, pg.10.

<https://www.newindianexpress.com/opinions/2024/Aug/03/5-temples-that-are-odes-to-nature> Accessed on 16 September, 2024.



Cover Story

Lifestyle for the Environment (LiFE) - Adopt Healthy Lifestyles - Encourage use of indigenous herbs and medicinal plants

Dr. A. Abirami

C.P.R. Environmental Education Centre, Chennai

Introduction

Indigenous herbs and medicinal plants are an important part of the natural ecosystem, providing important habitats for wildlife and promoting biodiversity. Many local communities rely on these plants for traditional medicine and other uses. Indigenous trees are essential for maintaining a healthy environment, providing a range of benefits such as absorbing carbon dioxide, preventing soil erosion, as well as providing shade and shelter for wildlife.

One of the actions which comes under the Mission LiFE theme, 'Adopt Healthy Lifestyles' encourages use of indigenous herbs and medicinal plants (*neem*, *tulsi*, *Guduchi*, mint, *ashwagandha*, and curry leaves). The concept of 'Lifestyle for the Environment (LiFE)' was introduced by Prime Minister Narendra Modi at COP26 in Glasgow on 1st November 2021, urging the global community of individuals and institutions to make LiFE a global movement of "mindful and deliberate consumption, rather than mindless and destructive consumption" in order to protect the environment. Mission LiFE seeks to channel the efforts of individuals and communities into a global mass movement of positive behavioural change. By taking such actions to protect the environment and promote sustainability, we can help to create a better world for ourselves and future generations.

NEEM TREE

Botanical Name	: <i>Azadiracta indica</i> L.
Tamil Name	: Vembu
Sanskrit Name	: Nimba
English Name	: Neem Tree



<https://powo.science.kew.org/taxon/urn:lsid:ipni.org:names:1213180-2>

Distribution and Habit

Azadiracta indica is commonly called as *Neem* that belongs to *Meliaceae* family. The neem is one of the most common trees found in India and Burma. It is also the state tree of Andhra Pradesh. It is a fast growing tree that can reach a height of 15-20 m and rarely to 35-40 m. It is evergreen, but under severe drought it may shed most or nearly all of its leaves. The branches are wide spread. The fairly dense crown is roundish or oval and may reach a diameter of 15-20 m in old, free-standing specimens. Leaves 20-40 cms long, with 20-31 medium to dark green

leaflets, alternate and consist of several leaflets with serrated edges. Flowers small and white in colour. It has a straight trunk. Its bark is brown-grayish, hard, rough and scaly and fissured, even in small trees. The olive-like edible fruit is oval, round and thin skinned (Rahmani et al. 2018).

Parts Used : Whole plant

Phytochemical constituents

Isoprenoid, azadirone, gedunin, Nimbin, salanin, azadirachtin, nimbidin, nimbinin, nimbidinin, nimbolide, polyphenolics, sulphurous compounds, dihydrochalcone, coumarin, tannins, aliphatic compounds, proteins and carbohydrates.

Medicinal Uses

In Sanskrit, 'Neem' means 'Arishtha' that symbolizes complete, perfect and imperishable. Also, *Arishtha* means, 'Reliever of sickness' (Pandey et al. 2014). According to Hindu mythology, the Aryans considered that the *neem* tree has a divine origin.. It was said that when *Amrita* was transported to heaven by Garuda, and a few drips of *Amrita* dropped on the *neem* tree. Also in another story, when Indira sprayed the *Amrita* on Earth, the *neem* tree rose. It was also regarded as the gift of god and was related to Dhanvantri (the Aryan god of medicine) (Puri 2005). All the parts of this tree have been used in India for well over two millennia. Fresh juice is mixed with salt and given for intestinal worms. A decoction of the fresh leaves is consumed for malarial fever. Leaves are made into a paste and applied over skin diseases. The tender twigs are used as tooth brush to keep the teeth and gums healthy. Fruit is used for urinary disorders (Sudhakar, 2007). The neem tree is very useful in the treatment of many medical conditions like skin diseases, healthy hair, improve liver

function, detoxify the blood, pest and disease control, fever reduction, dental treatments, cough, asthma, ulcers, piles, intestinal worms, urinary diseases, etc. The seed of the tree is used in the manufacture of neem oil. The neem oil is used in soap, shampoo, balms and creams as well as toothpaste. Neem oil is also useful in the treatment of acne and keeping skin elasticity. Neem oil is also an effective mosquito repellent. It is used to treat plant pests. The gum of the tree is used as a bulking agent and also used as a special food for diabetic patients. The paste of the leaf is used in the treatment of acne and also useful in the treatment of measles and chicken-pox and the patient is advised to sleep on neem leaves. A decoction prepared from neem roots is taken to relieve fever (Oli and Gautam, 2022). All the parts of the neem tree are used as anthelmintic, anti-fungal, anti-diabetic, antibacterial, antiviral, contraceptive and sedative.

Mythological and Religious associations

For centuries, the neem has been closely associated with the life and culture of the people in the Indian subcontinent. The tree is called a 'symbol of truth'. Anyone who utters falsehoods beneath a neem is believed to fall ill. Considered to be a gift of the gods, it is held sacred by Hindus all over the country. An old proverb says:

The land where the neem tree abounds,
Can death, disease there be found?

In forests in south India, neem trees may be found decorated with kumkum and red cloth and garlanded with beads, since they represent Vana Durga, goddess of the forest, while shrines to Kali are situated beneath neem trees. In Andhra Pradesh and Tamil Nadu, pipal and neem trees are planted close to each other so that they may intertwine as they grow. A serpent idol is placed under them and worshipped. There are many folk beliefs centred on the neem,

which is still valued for its capacity to exorcize demons and evil spirits. An image of folk goddess Shitala can often be seen suspended from a neem branch, where she stands guard against smallpox (Nanditha and Amirthalingam, 2014).

TULSI

Botanical Name	: <i>Ocimum sanctum</i> L
Tamil Name	: Tulsi
Sanskrit Name	: Tulasi, Vishnupriya, Manjari, Vrinda
English Name	: Holy Basil



<https://herbsinkerala.blogspot.com/2019/09/ocimum-tenuiflorum-tulsi-thulasi.html>

Distribution and Habit

Tulsi “Queen of herbs” grows in the warm and tropical region. It is native to India. It is grown near temples and in homes throughout the country described as sacred and medicinal plant in ancient literature. This plant belongs to the family *Lamiaceae*. It is an erect, profusely-branched shrub, fragrant, 30-75 cms tall, with hairy stems. Leaves are purple and green; petioled with an ovate, up to 5 cm long blade. The flowers are purple; the seeds are brown with black colour spots on them. It blooms in winter. *Tulsi* is found in a wide variety of climatic conditions, upto 1800 m in the Himalayas and down in the Andaman and Nicobar Islands. It is also abundantly found in Malaysia, Australia, West Africa and some of

the Arab countries. *Ocimum sanctum* has two varieties i.e. black (*Krishna Tulsi*) and green (*Rama Tulsi*), their chemical constituents are similar. Both the varieties also have common medicinal Properties (Pattanayak et al. 2018).

Parts Used : Whole plant

Phytochemical constituents

Phenolics, flavonoids, neolignans, terpenoids, fatty acid derivatives, volatile oil – camphene, myrcene, sabinene, linalool and borneol, mucilage, polysaccharides, -sitosterol, linolenic acid, and rosmarinic acid.

Uses

Tulsi is cultivated for religious and medicinal purposes, and for its essential oil. Traditionally, it is taken as herbal tea, either as dried powder or fresh leaf mixed with ghee. The stem is made into beads and used as a rosary. It is also an environmental purifier. This plant emits oxygen for twenty hours and ozone for four hours (Deepika et al. 2015).

Medicinal uses

This plant has been used for thousands of years in Ayurvedic medicine. In Ayurveda, tulsi is known as “the incomparable one”, “mother medicine of nature and “the queen of herbs” (Patel, 2020). Marked by its strong aroma and astringent taste, it is regarded in Ayurveda as an ‘elixir of life’. Tulsi is used as an antiseptic, antiviral, antibacterial and antibiotic. Traditionally, the juice extracted from the leaf cures fever, dysentery, skin infections, and intestinal worms and reduces vomiting. The juice mixed with honey cures cough, cold, bronchitis, and mouth infections. The oil extracted from its leaf is an antiseptic. A paste of its root acts as an antidote to snake poisoning and scorpion bite. The leaves are good for nerves and to sharpen memory. Chewing of tulsi leaves also cures ulcers and

infections of the mouth. Holy Basil is very effective for boosting the immune system. A few leaves in drinking water or food stuff can purify it and can kill germs in it. It protects from nearly all sorts of infection from viruses, bacteria, fungi and protozoa (Govind and Madhuri, 2010). The decoction is given for malaria, infantile gastric diseases and liver disorders. The leaf juice is used for treating ringworms and other skin diseases. To eliminate lice and arrest dandruff, leaf juice mixed with lemon juice may be applied to the hair and washed after an hour (Sudhakar, 2007).

Mythological and Religious associations

Tulsi is worshipped as an incarnation of Goddess Lakshmi. Tulsi is regarded as a consort of Krishna. The sacred tulsi is believed to be a destroyer of demons and evil spirits. During an eclipse, leaves sprinkled with Ganga water are immersed into drinking water. Tulsi is ceremonially married to Vishnu annually in the month of Kartika. This festival continues for five days and concludes on the full-moon day, which falls in mid-October. This ritual is called *tulsi vivaaha*, or the wedding of the tulsi plant to Lord Vishnu (Nanditha and Amirthalingam, 2014).

GUDUCHI

Botanical Name : *Tinospora cordifolia*
(Willd.) Miers ex Hook.
F. & Thoms.

Tamil Name : Seenthil kodi;
Amruthavalli
Sanskrit Name : Guduchi
English Name : Heart leaved moonseed

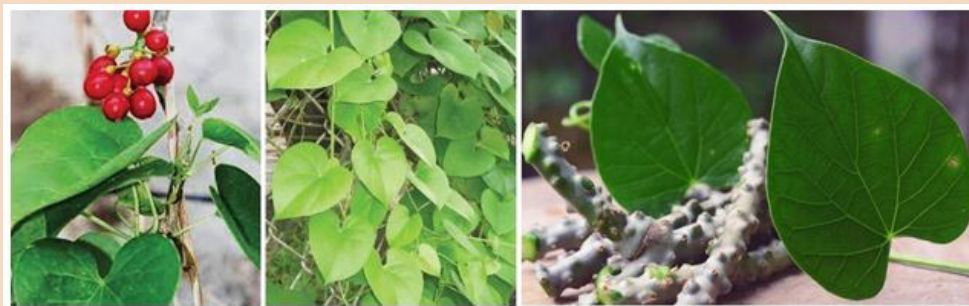
Distribution and Habit

Tinospora cordifolia belonging to the family *Menispermaceae*, is a large, deciduous, climbing shrub with several elongated twisted branches. It is found throughout India, Sri Lanka, Nepal, Bangladesh and certain parts of China. It thrives well in the tropical region and often attains a great height and climbs up the trunks of large trees. Leaves simple, heart shaped, bright green, alternate, 10-12 cm long and 8-15 cm broad. Stem filliform, fleshy and climbing nature. Bark succulent, with deep clefts spotted and large rosette-like lenticels, creamy white or grey. Long thread-like aerial roots arise from the branches. Branches are long and dirty white or light greyish. Flowers small, greenish yellow, male flowers are in clusters and female flower are solitary. Fruits orange-red, fleshy, smooth, with single curved seed (Spandana et al. 2013).

Parts used : Whole plant.

Phytochemical constituents

Glycosides, tinosporin, isocolumbin, palmetine, jateorine, syringing, aliphatic compounds, alkaloids, octacosanol, heptacosanol, sesquiterpenoids, tinocordifolin, diterpenoid lactones, steroids, phenolics, and polysaccharides.



<https://www.techscience.com/phyton/v91n6/46794/html>

Medicinal uses

T. cardifolia is a popular medicinal plant which is used in several traditional medicines to cure various diseases. The plant is commonly used in traditional ayurvedic medicine and has several therapeutic properties for diseases such as jaundice, rheumatism, urinary disorder, skin diseases, diabetes, anaemia, inflammation, and allergic conditions. The fresh plant is more effective than the dried ones. Castor oil is applied to the leaves, heated over fire and then used as a bandage for wounds. The leaf paste is consumed on empty stomach continuously for 60 days to control diabetes. The fresh juice is mixed with milk and used as a general tonic (Sudhakar, 2007). The root is used as potent emetic and for bowel obstruction. The root and stem are used as anti-dote to treat snake bite and scorpion sting. The starch from the plant serves as a beneficial household remedy for chronic fever, relieves burning sensation, increases energy and appetite (Devprakash et al. 2011). The powder form of the stem is bitter in taste and used in dyspepsia, fever and urinary infections. Juice or decoction of leaves is administered orally with honey to treat fever. The whole plant is useful in the treatment of helminthiasis, heart diseases, leprosy, rheumatoid arthritis, and boosts the immune system. The plant has many pharmacological properties such as being hypoglycemic, antipyretic, anti-allergic, anti-neoplastic, anti-inflammatory, anti-oxidant, and immune modulatory (Khan et al. 2017).

Mythological and Religious associations

The plant is supposed to be the ambrosia of God Indra and is considered a holy liquid.

MINT

Botanical Name : *Mentha arvensis* L.
 Tamil Name : Pudina
 Sanskrit Name : Pudinvara
 English Name : Marsh Mint / Corn Mint



<https://ivyparadisepant.com/product/puthina-thulasi/>

Distribution and Habit

Mentha arvensis Linn. belongs to the family *Lamiaceae*. It is found in Eurasia, widely growing in subtropical regions. It is native to the regions of Europe, western and central Asia. It is an erect, herbaceous, perennial plant that grows upto 20-80 cms on square, hairy stems. It is rhizomatous and has opposite leaves with very short stalks. Leaves elliptic to oblong-ovate, short petioled, toothed margins, rounded or blunt tipped. Flowers whorled; around upper leaf axils; 4-7 mm long; 2 lipped; irregular; white to pink to violet colour. Fruits brown nutlets.

Parts used : Leaves, flowering tops and stem.

Phytochemical constituents

α -menthol, neomenthol, isomenthol, d-menthone, isomenthone, menthofuran, menthylacetate, carvomenthone, cineol, p-cymene, aromadendrene, limonine, phellandrene, pipertone, pinene, carvacrol, -pinene, -phellandrene, dipentene, cardinene, thujone, quercetin, isorhoifolin, menthoside, vitamin K, thymol and eugenol.

Medicinal uses

Ancient records describe various medicinal properties of *M. arvensis* as a popular source to cure different disease conditions in China, India, and Greece. It is an aromatic herb which is a natural coolant with a sweet and pungent taste. The herb has the quality to pacify all the three *doshas* and mainly manages the *Pitta dosha*. The mint leaves known to their carminative properties, help in digestion and assimilation of food and treats colic pain. The leaf extract is utilized to treat intestinal worms. The leaves are rich in Vitamins A, C, iron, potassium and B-complex which enhances healthy skin, bolsters immunity, promotes brain function and improves haemoglobin profile (Faith et al. 2017). The aromatic essential oils are piled with rich antioxidants. Leaves are wonderful appetizers which help to activate the salivary glands in the mouth. They stimulate the secretion of digestive enzymes and promote the digestion process. Mint oil possesses strong antiseptic, antibacterial and calming properties that help in soothing the stomach and ease indigestion, inflammation and irritable bowel syndrome. Menthol oil treats diarrhoea and relieves nausea caused due to motion sickness. The powerful and refreshing aromatic properties of mint leaves are used in making soothing balms and essential oils which assist in alleviating headache and nausea. The mint leaves help to ward off bacteria causing bad breath (Akram et al. 2011). Infusion of the plant is taken to cure fever. The herb contains iron and vitamin B. Infusion of the plant along with lemon grass cures headache and nausea. It is used in treating hiccups and jaundice. The extracted oil is used to cure headache and acts as an appetizer, when taken with water (Sudhakar, 2007).

Mythological and Religious associations

Ruled by the planet Venus, mint is associated with the element of Air. Thus, it can be a very

effective plant for stimulating communication and giving power to one's own voice. Mint can also be used to attract wealth, luck, or love, and it is revered for its ability to cleanse a space and counteract negative energy or attacks (<https://artoftheroot.com/>).

ASHWAGANDHA

Botanical Name : *Withania somnifera* (L.)
Dunal
Tamil Name : Amukkira
Sanskrit Name : Ashwagandha
English Name : Winter Cherry

Distribution and Habit

Withania somnifera (L.) Dunal belongs to the family *Solanaceae* and is commonly known as *Ashwagandha*. This shrub is found in the drier parts of India, Baluchistan, Pakistan, Afghanistan, Sri Lanka, South Africa and Egypt. It grows widely throughout India, particularly in hotter parts, on waste places and road sides. *W. somnifera* is an erect branching, woolly pubescent shrub that grows to a height between 30 and 150 cms, with branches extending radially from a central stem. Leaves are dull green, elliptic, up to 10-12 cms long and 2.5-5 cm wide. The flowers are green or yellow and become red in colour when mature. The fruits are fleshy and roots are cylindrical in shape.



<https://vindhyabachao.org/inventory/medicinal-plants/756-traditional-use-ashwagandha>

Parts used

Leaves, fruits, roots and seeds.

Phytochemical constituents

Withanine, withosmine, withaniol, withanic acid, somnine, somniferine, and amino acids.

Uses

Aswagandha is a potent anti-stress agent and it is the principal component of many polyherbal preparations. Fruits of *W. somnifera* have a milk-coagulating property, which is used in the preparation of vegetable rennet ferment for making cheese.

Medicinal uses

Withania somnifera Dunal (*ashwagandha*) is a commonly used herb in Ayurveda, Siddha and Unani system of medicines. It is an imperative herb in traditional medicine systems for over 3000 years. The name “*somnifera*” in Latin means “sleep-inducer” which probably refers to its general use as a remedy against stress. In Ayurvedic medicine, ashwagandha is considered a *Rasayana*, means that it helps maintain youth, both mentally and physically. Traditionally, the plant was used as aphrodisiac, anti-inflammatory agent, as an ingredient of liver tonic, rejuvenating agent and to treat insomnia. The root is used in the treatment of bronchial asthma, insomnia and for reproductive fertility. Leaves are used for treating fever and painful swellings (Sudhakar, 2007). The leaves of *W. somnifera* are bitter in taste and used as an anti-helmantic. The roots are used in constipation, loss of memory, and loss of muscular energy. The fruits of the plant are claimed to be sedative, emetic, stomachic, a blood-purifier, febrifuge, diuretic and bitter tonic in dyspepsia as well as a growth promoter in infants (Narinderpal et al. 2013). *W. somnifera* and its botanical constituents are reported as being anti-tumor, anti-parkinson, immunostimulatory, cardio-protective, hypo-glycaemic and hypo-lipidaemic agents (Singh et al. 2011). *W. somnifera* is normally consumed with warm milk or lukewarm water.

CURRY LEAF

Botanical Name : *Murraya koenigii* Linn.
Tamil Name : Karivepillai
Sanskrit Name : Kalashaka
English Name : Curry Leaf

Distribution and Habit

Murraya koenigii (L.) belongs to the family *Rutaceae* and is commonly known as Curry Leaf, more or less deciduous shrub or small trees, found throughout India up to an altitude of 1500m and are cultivated for its aromatic leaves. *M. koenigii* originates from eastern and southern parts of India, Pakistan, Sri Lanka, China and Hainan but are widely cultivated in South-East Asia and some parts of the United States and Australia. It is a small tree, growing 4-6 m tall, with a trunk up to 40 cms diameter. The leaves are pinnate, with 11-21 leaflets, each leaflet 2-4 cms long and 1-2 cms broad. They are highly aromatic. The flowers are small white, and fragrant. Fruits occur in close clusters, small ovoid or sub-globose, glandular, thin pericarp enclosing one or two seeds having spinach green color. The small black, shiny berries are edible, but their seeds are poisonous.



https://www.researchgate.net/figure/Leaf-of-Murraya-koenigii-Linn-curry-leaf_fig1_331271678

Parts used

Leaves, bark, root and fruits.

Phytochemical constituents

Alkaloids, flavonoids, phenolics, saponins, proteins, free amino acids, sterols, nicotinic acid, Vitamin C and carotene.

Uses

Fresh leaves, dried leaf powder, and essential oil of this plant are widely used for flavouring soups, curries, fish and meat dishes, egg dishes, traditional curry powder blends, chutneys, seasoning and ready to use other food preparations. Curry leaves are boiled with coconut oil which is then used as an excellent hair tonic for retaining natural hair tone and stimulating hair growth. The essential oil is utilized by soap and cosmetic aromatherapy industry.

Medicinal uses

Murraya koenigii is widely used in Indian cookery from centuries and have a versatile role to play in traditional medicine. Leaves are rich in vitamin A. Tender leaves are orally consumed to cure dysentery and diarrhea. A paste made with these leaves is applied over insect bites and other skin eruptions (Sudhakar, 2007). The plant is credited with tonic and stomachic properties. Bark and roots are used as stimulant and externally, to cure eruptions and bites of poisonous animals. Green leaves are eaten raw for cure of dysentery, diarrhoea and vomiting. Leaves and roots are also used traditionally as anthelmintic, analgesic, piles, inflammation, itching and are useful in leucoderma and blood disorders. Influenza and rheumatism can also be treated with these leaves (Bhandari, 2012). The juices of the roots have hepatoprotective actions and are proven to be good for kidney related pains. Fruits are highly nutritious with several medicinal properties, astringency being one of them. This plant has been reported to have anti-oxidative, cytotoxic, anti-diabetic, anti-microbial, anti-bacterial, anti-ulcer, and cholesterol reducing activities. Richness of Vitamin A and calcium in curry leaf oil is used for strengthening the bone, osteoporosis, calcium deficiency, and radiotherapy and chemotherapy treatments of cancer (Khedkar, 2015).

Summary

- The *neem* is one of the most ubiquitous and versatile of trees found in south Asia. Almost every village and town boasts of a tall, spreading *neem* tree. Every part of tree can be used in some way, especially in the treatment of various medical conditions. This will reduce the pollution as well as provide welcome shade to the passers-by.
- *Tulsi* plays such an important role in the maintenance of good health in the Indian tradition that homes all over India keep a tulsi plant in the central courtyard as it helps in preventing coughs, colds, and fever.
- *Guduchi* is a well-known medicinal plant and important drug of Indian traditional medicinal system. The drug from the plant is prescribed in fever, diabetes, dyspepsia, jaundice, urinary problems, skin disease and chronic diarrhoea and dysentery.
- Mint is one of the popular and important medicinal plants of tropical and moderate areas of the world. The plant is used directly as an herb or as a main component for production of a number of medicines and food supplements for physical rejuvenation and therapy for the conditions affecting liver, kidney, cardiovascular and immune systems.
- *Ashwagandha* is a main ingredient of many marketed formulations used for a variety of clinical conditions like arthritis and rheumatism and as a general tonic to improve health of the elderly and during pregnancy in women.
- Curry leaf is a leafy medicinal as well as green leafy plant. It has wide culinary use and is one of the main components of formulations in the traditional Ayurvedic system. Documenting ethno-medicinal curry leaf is extremely important as it gives very useful information on growers in conservation and use, which could be effectively used in developing appropriate research and development programmes on this plant species.

- Hence, it is very essential that the above said indigenous and medicinal plants are planted in every home, village and town. It is also necessary to educate the younger generation about the benefits of the same.

Conclusion

As part of LiFE, everyone has the responsibility to live a life that enhances and protects the planet. Those who live in harmony with the planet are recognized as Pro Planet People. Except for some toxic plants, almost all other wild edible plants are wholesome food with innumerable health benefits. Since time immemorial, our ancestors relied upon traditional medicine which is the combination of various parts of plants made into potion, powder, syrup, confection, mineral mixed powders and other forms. There are ample scientific publications about the medicinal properties of indigenous plants. Consumption of raw fruits, seeds, powdered roots of medicinal plants is now derided as an out-dated practice. The rural population preserves the knowledge about the indigenous plants and their benefits. The Mission LiFE has undertaken the process of reviving these indigenous herbs and medicinal plants and as a part of it; it is encouraging the revival of these plants that are specific to regions. It is expected that in the next few years, there will be more research to revive more and more region-specific indigenous herbs and medicinal plants that will play a crucial role in the development of traditional medicines through the Mission of LiFE.

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— News —

India's 56th tiger reserve in Chhattisgarh

Guru Ghasidas-Tamor Pingla in Chhattisgarh has been noticed as the 56th tiger reserve of the country, Union Environment Minister Bhupendra Yadav announced on 18 November, 2024.

In a post on social media platform 'X' he said, "As India continues to touch new milestones in tiger conservation, we have noticed Guru Ghasidas-Tamor Pingla in Chhattisgarh as the 56th tiger reserve. Guru Ghasidas Tamor Pingla Tiger Reserve is spread over 2,829 sq kms."

The Government of Chhattisgarh, on the advice of the National Tiger Conservation Authority (NTCA), noticed the Guru Ghasidas – Tamor Pingla Tiger Reserve across Manendragarh-

Chirmiri-Bharatpur, Korea, Surajpur and Balrampur districts of Chhattisgarh.

The tiger reserve, encompassing a total area of 2829.38 sq.kms, includes a core / critical tiger habitat of 2049.2 sq.kms, comprising the Guru Ghasidas National Park and Tamor Pingla Wildlife Sanctuary, and has a buffer of 780.15 sq.kms.

This makes it the third largest tiger reserve in the third largest tiger reserve in the country after Nagarjunasagar – Srisailem Tiger Reserve in Andhra Pradesh and Manas Tiger Reserve in Assam. The Guru Ghasidas- Tamor Pingla Tiger Reserve becomes the 56th Tiger Reserve to be notified in the country.



Source: The Statesman Bhubaneswar, 19/11/2024, pg.5.



— News —

Temples of Goddess Durga in India with unbelievable Truths

While, there are several temples of Goddess Durga in India, some of them are so special that it is hard to resist the temptation of not visiting them even after knowing their facts. So here we share amazing facts about five shrines dedicated to the goddess.

Kasar Devi, Almora

Kasar Devi is located on a hilltop, in Almora district on the Kaashay hills of Kumaon Himalayas. Situated in the middle of deodar and pine forests, the temple site offers the views of Almora, the Hawalbagh Valley, and the Himalayas from the Bandarpunch peak on the Himachal Pradesh border. The ash of dhuni burning in the temple premises can cure any mental diseases. A unique magnetic power in and around the temple site bestows mental peace to the visitors. In 2013, a team of NASA scientist visited this temple to study the unique



<https://www.chardhamtour.in/blog/kasar-devi/>

phenomenon and conduct experiments to know the effects of this abundant magnetic energy. As per the NASA research, the temple area is a part of Van Alan belt that store surplus amount of electromagnetic particles similar to the Machu Pichu in Peru and the Stonehenge in England.

Dhari Devi, Dang Chaura, Uttarakhand

Dhari Devi temple is situated between Srinagar and Rudraprayag on the banks of Alaknanda River in Kalyasaur village. She is the guardian deity of Uttarakhand. In this shrine, only the upper body of the goddess is worshipped while the lower body is enshrined elsewhere. Legend has it that a severe flood had washed away Dhari Devi's idol in its waters. The idol of the Devi was trapped against a rock near the village Dharo. The locals heard the wail of the idol and divine voice commanded them to install the idol in the village. An amazing fact about this shrine is that the stone image of the goddess changes face from that of a girl to a woman, and finally of an old lady as the day progresses.



Dhari Devi, Dang Chaura, Uttarakhand

Jwala Devi, Kangra

Located in Kangra district of Himachal Pradesh, about 56 kms from Dharamsala, the temple of Jwala Devi or Jwala Ji stands out for its eternal flame which has been burning since ages. The temple finds a mention in the *Mahabharata* and other scriptures. It is a natural cave where the eternal flames continue to burn. As per lore, a proud Emperor Akbar had donated a golden umbrella to the shrine which turned into an unknown metal by will of the goddess. The flame of Jwala Ji never got extinguished even when tyrants in the past attempted to pour gallons of water over it.



<https://beyondthepunchlines.com/story-of-the-eternal-flame-jwala-ji/>

Karni Mata Mandir, Deshnoke

It is a Hindu temple dedicated to Karni Mata at Deshnoke, located 30 kms from Bikaner, in Rajasthan. Also called the Temple of Rats, the shrine has about 25000 black rats that live and a few white rats residing within the temple premises. These holy rats are known as *kabbas*, and are revered by everyone. As per a legend, Karni Mata was a divine incarnation whose mission was serving the people. One day, her sister's son drowned in a pond while trying to drink water. Karni Mata implored Yama, the god of the mortals, to restore the life of the boy. Yama relented and granted the boon that all the male children of Karni Mata's clan will be

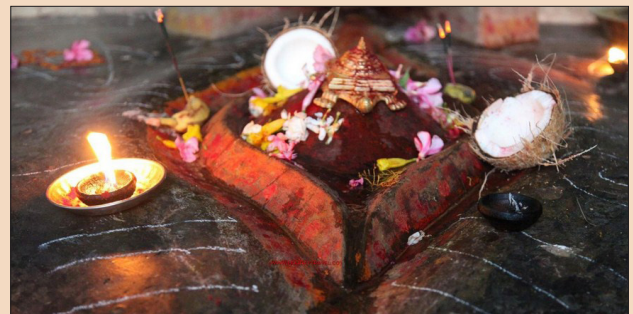
born as rats before being born as human again. Eating food that has been nibbled on by the rats is believed to be fortunate. No disease has been never spread by the temple rats.



<https://www.chamundaswamiji.com/mysterious-temples-of-india-series-karni-mata-rat-temple-of-rajasthan/>

Kamakhya Devi, Guwahati

On the Nilachal Hill in Guwahati, Assam, is located the awe-inspiring temple of goddess Kamakhya. What makes its shrine unique is the



<https://kamakhyadevi.org/>

fact that no stone idol of the goddess is worshipped in the inner sanctum within the shikhara, the *garbhagriha*. Instead, the object of worship is the rock shaped like the female genital which is believed to be of the goddess herself. The rock fissure in the shape of a *yoni* (female genital) is always filled with water from an underground spring. Every year in June, a famous fair is held known as Ambubachi Mela during which the goddess menstruates, as per a belief.

Source: State Times Jammu, 7/10/2024, pg.5.

— News —

Ecological balance is a must for survival

by Ganesh Kolambakar



Humanity now faces an unprecedented threat – ecological imbalance. While we have long prioritised territorial control, economic growth, cultural identity, and religious affiliation, today’s most pressing challenge is environmental sustainability, which must take precedence over all other concerns. If left unaddressed, this crisis will endanger countless species, including our own.

The term ‘economics’ originates from the Greek ‘oikonomia’, meaning ‘household management’ or ‘art of living’. Yet, over time, this art has shifted to signify a relentless pursuit of wealth, often at the cost of sustainable living. We have drifted from nature’s rhythm; the principle of ‘live and let live’ has been overshadowed by pursuit of monetary gains and a misguided sense of progress. This disconnect has yielded alarming consequences. In the name of progress, we indiscriminately clear forests, erode mountains, alter landscapes, and pollute rivers, leading to seasonal disruptions, erratic rainfall, floods, droughts,

and temperature extremes. We have not only contaminated our rivers but have also impacted oceans, causing long-term damage to marine species.

Today’s metrics of economic success growth rate, per capita income, profit margins-often overlook the necessity of a stable ecosystem. Without ecological balance, economic prosperity is fleeting.

While efforts to protect biodiversity and promote eco-friendly practices exist, they must catch up to what is urgently required. Each species plays an irreplaceable role in maintaining ecological balance, yet our short-sighted focus on short-term gains accelerates ecological collapse. Sant Jnaneshwar devotionally expressed that plants, trees, rivers, and mountains are our relatives, emphasising our interconnectedness with nature and its intrinsic role in our lives.

The Atharva Veda encapsulates this ethos with the verse. “Mata Bhumi Putro Aham Prithivyah”

.... “Earth is my mother, and I am her child”. This intimate relationship with the earth must rouse us to protect and care for it as we would a parent, underscoring our ecological responsibility.

The path forward is clear. We can either persist on a trajectory of environmental degradation or work towards a sustainable future that respects our natural world. By prioritising

ecological preservation, we lay the groundwork for a healthier, more harmonious world for generations to come.

Source: The Times of India Chennai, 21/11/2024, pg.12.

<https://timesofindia.indiatimes.com/blogs/toi-edit-page/ecological-balance-is-a-must-for-survival/>



In-focus

Wildlife Week Celebrations – October 2, 2024 – October 8, 2024

Wildlife week is celebrated every year in the first week of October month with an aim to protect and preserve the country's flora and fauna and to make people understand the importance of wildlife conservation. As part of "Wildlife Week (02nd – 08th October, 2024) Celebrations", CPREEC EIACP PC-RP, Chennai developed awareness posters on

- Royal Bengal Tiger (Day 1 - 02/10/2024)
- Indian Leopard (Day 2 - 03/10/2024)
- Asiatic Lion (Day 3 - 04/10/2024)
- Indian Peafowl (Day 4 - 05/10/2024)
- Great Indian Bustard (Day 5 - 06/10/2024)
- Nilgiri Tahr (Day 6 - 07/10/2024) and
- Indian Rhinoceros (Day 7 - 08/10/2024).

CELEBRATING WILDLIFE WEEK
(OCTOBER 2, 2024)

ROYAL BENGAL TIGER

Scientific Name : *Panthera tigris tigris*

Population : 3682

Life Span : 10-15 years

Top Speed : 96 km/h

Weight : 80-260 kgs.

Length and Height : 255-311 cms. and 90-110 cms.

Geography : India, Bangladesh, Nepal, Bhutan and South Western China.

Habitat : Tropical moist evergreen forests, tropical dry forests, tropical and subtropical, moist deciduous forests, mangroves, subtropical and temperate upland forests, flood plains, and alluvial grasslands.

Description : Coat is yellow to light orange, with stripes ranging from dark brown to black; the belly and the interior parts of the limbs are white, and the tail is orange with black rings, has stout teeth. Its canines are 7.5 to 10 cms (3.0 to 3.9 in) long and thus the longest among all cats.

Group Name : Leap or lepe

Diet and Nutrition : Indian leopard, mugger crocodile, Asian black bear, sloth bear, dhole gaur, sambar, chital, barasingha, water buffalo, nilgai, serow, wild boar, Indian hog deer, Indian muntjac deer, gray langur, porcupines, hare, and peafowl.

Ecological niche : Tigers help control the populations of their large herbivorous prey, which put pressure on various plant communities. Due to their role as top predators, they are considered keystone species.

Threats : Habitat destruction, habitat fragmentation, human-wildlife conflict, and poaching.

Status : **ENDANGERED**

Do You Know? : Tiger – India's National animal.
Vahana of Goddess Durga/Shakthi, Lord Ayyappa and Raghu

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CELEBRATING WILDLIFE WEEK
(OCTOBER 3, 2024)

INDIAN LEOPARD

Scientific Name : *Panthera pardus fusca*

Population : 13874 (Range: 12,616 – 15,132)

Life Span : 10-20 years

Top Speed : 58 km/h

Weight : 29-77 kgs.

Length : 104-142 cms.

Geography : India, Nepal, Bhutan, and parts of Pakistan.

Habitat : Tropical rainforests, dry deciduous forests, temperate forests, and temperate coniferous forests

Description : It has strong legs and a long well-formed tail, a broad muzzle, short ears, and small, yellowish-grey eyes, light grey ocular bulbs. Its coat is spotted and rosette on a pale yellow to the yellowish-brown or golden background, the spots fade toward the white underbelly and the insides and lower parts of the legs. Juveniles have woolly fur and appear dark due to the densely arranged spots.

Group Name : Leap or lepe

Diet and Nutrition : Axis deer, sambar deer, nilgai, wild boars, common langurs, Indian hare, and peafowl.

Ecological niche : As top predators, leopards play a significant role in the local ecosystem by controlling the numbers and health of the populations of wild ungulate species.

Threats : Poaching, illegal trade, poisoning and killing.

Status : Vulnerable on the IUCN Red List

Do You Know? : Leopards are the smallest of the big cats.
Leopards are able to hear five times more sounds than humans.

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CELEBRATING WILDLIFE WEEK
(OCTOBER 4, 2024)

ASIATIC LION

Scientific Name : *Panthera leo persica*

Population : 674

Life Span : 16-18 years

Top Speed : 56 km/h

Weight : 110-190 kgs.

Length and Height : 1.4-2.5 metres and 110 cms.

Geography : The Gir Forest in Gujarat (India)

Habitat : Tropical, dry deciduous forests.

Description : Asian lions are quite similar to African lions both in appearance and size. However, they are slightly smaller than African relatives. Asian lions are clearly identified by long folds of skin, stretched along their bellies; their manes are shorter than those of African lions, so the ears are seen. Being cats, Asian lions possess strong retractable claws and sharp canine teeth. The colour of their fur varies from buffish-grey with occasional silvery tones, to ruddy-tawny, covered with black spots.

Group Name : Pride, sault, troop, sawl

Diet and Nutrition : Axis deer, sambar deer, nilgai, wild boars, common langurs, Indian hare, and peafowl.

Ecological niche : As top predators lions regulate the prey species population in the area.

Threats : Poaching, illegal trade, poisoning and killing.

Status : **ENDANGERED ON THE IUCN RED LIST**

Do You Know? : The lion is a symbol of power and majesty by Emblem of India.
Narasimha, the fourth incarnation of Lord Vishnu was half man and half-lion.
Lion is the vahana of Goddess Durga.

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CELEBRATING WILDLIFE WEEK
(OCTOBER 5, 2024)

INDIAN PEAFOWL

Scientific Name : *Pavo cristatus*

Population : 100,000

Life Span : 15-23 years

Top Speed : 66 km/h

Weight : 2.7-6 kgs.

Length and Height : 95-115 cms. and 80-160 cms.

Geography : Bangladesh, Bhutan, India, Nepal, Pakistan, Sri Lanka.

Habitat : Tropical, moist and dry-deciduous forests.

Description : The cock has a fan-shaped crest, a metallic blue head, and a bright blue neck and upper body. The tail has long, ornamental feathers with black eye-spots on the rounded tips. The hen has a chestnut-brown crest and neck with feathers bordered in bronze and green.

Group Name : Ostrination, muster, pride.

Diet and Nutrition : Seeds, insects, fruits, small mammals, and reptiles, groundnut, tomato, paddy, chilli, and bananas.

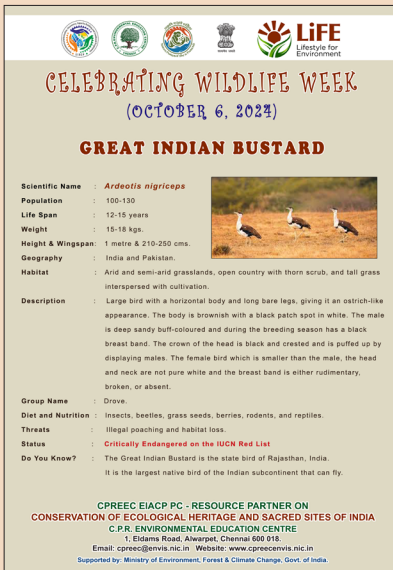
Ecological niche : Due to their dietary habits, these birds control the numbers of snakes, lizards, and especially pests such as grasshoppers and other insects.

Threats : Illegal poaching for their meat and feathers and accidental poisoning.

Status : **Least concern on the IUCN Red List**

Do You Know? : In 1963, the peacock was declared the national bird of India.
Peacock is the vahana of Lord Kartikeya.

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**CELEBRATING WILDLIFE WEEK
(OCTOBER 6, 2024)**

GREAT INDIAN BUSTARD

Scientific Name : *Ardeotis nigricaps*

Population : 100-130

Life Span : 12-15 years

Weight : 15-18 kgs

Height & Wingspan : 1 metre & 210-250 cms.

Geography : India and Pakistan.

Habitat : Arid and semi-arid grasslands, open country with thorn scrub, and tall grass interspersed with cultivation.

Description : Large bird with a horizontal body and long bare legs, giving it an ostrich-like appearance. The body is brownish with a black patch spot in white. The male is deep sandy buff-coloured and during the breeding season has a black breast band. The crown of the head is black and crested and is puffed up by displaying males. The female bird which is smaller than the male, the head and neck are not pure white and the breast band is either rudimentary, broken, or absent.

Group Name : Drove.

Diet and Nutrition : Insects, beetles, grass seeds, berries, rodents, and reptiles.

Threats : Illegal poaching and habitat loss.

Status : Critically Endangered on the IUCN Red List.

Do You Know? : The Great Indian Bustard is the state bird of Rajasthan, India. It is the largest native bird of the Indian subcontinent that can fly.

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**CELEBRATING WILDLIFE WEEK
(OCTOBER 7, 2024)**

NILGIRI TAHR

Scientific Name : *Nilgiritragus hylocrius*

Population : 3122

Life Span : 3-9 years

Weight : 50-100 kgs.

Length and Height : 90-140 cms. and 80-110 cms.

Geography : Nilgiri Hills and Western and Eastern Ghats in the states of Tamil Nadu and Kerala.

Habitat : Montane grass land and montane rain forests.

Description : The Nilgiri tahr has a stocky body with short, coarse fur and a bristly mane. Males are larger than females and of darker colour when mature. Both male and female have curved horns, and adult males develop a light grey area on their backs, and thus are called "saddlebacks".

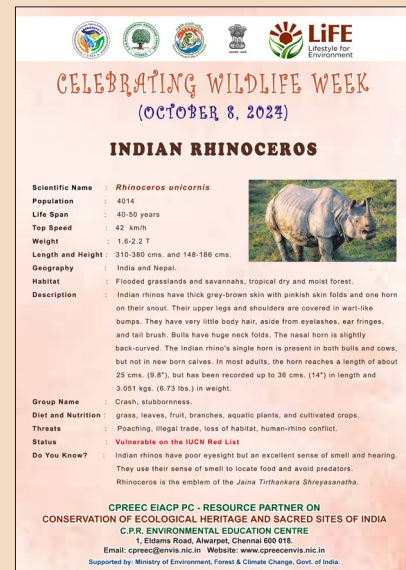
Diet and Nutrition : Various grasses, shrubs, leaves, and forbs.

Threats : Habitat loss mainly due to overgrazing of domestic livestock and the spread of invasive plants, illegal hunting, and climate change.

Status : Endangered on the IUCN Red List.

Do You Know? : The Nilgiri tahr is the state animal of Tamil Nadu.

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**CELEBRATING WILDLIFE WEEK
(OCTOBER 8, 2024)**

INDIAN RHINOCEROS

Scientific Name : *Rhinoceros unicornis*

Population : 4014

Life Span : 40-50 years

Top Speed : 42 km/h

Weight : 1.6-2.2 T

Length and Height : 310-380 cms. and 148-186 cms.

Geography : India and Nepal.

Habitat : Flooded grasslands and savannas, tropical dry and moist forest.

Description : Indian rhinos have thick grey-brown skin with pinkish skin folds and one horn on their snout. Their upper legs and shoulders are covered in wart-like bumps. They have very little body hair, aside from eyelashes, ear fringes, and tail brush. Bulls have huge neck folds. The nasal horn is slightly back-curved. The Indian rhino's single horn is present in both bulls and cows, but not in new born calves: in most adults, the horn reaches a length of about 25 cms. (9.8"), but has been recorded up to 36 cms. (14") in length and 3,051 kgs. (6.73 lbs.) in weight.

Group Name : Crash, stubbornness.

Diet and Nutrition : grass, leaves, fruit, branches, aquatic plants, and cultivated crops.

Threats : Poaching, illegal trade, loss of habitat, human-rhino conflict.

Status : Vulnerable on the IUCN Red List.

Do You Know? : Indian rhinos have poor eyesight but an excellent sense of smell and hearing. They use their sense of smell to locate food and avoid predators. Rhinoceros is the emblem of the Jaina Tirthankara Shreyasasatha.

**CPREEC EIACP PC - RESOURCE PARTNER ON
CONSERVATION OF ECOLOGICAL HERITAGE AND SACRED SITES OF INDIA
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Email: cpreec@envis.nic.in Website: www.cpreecenvis.nic.in
Supported by: Ministry of Environment, Forest & Climate Change, Govt. of India.**

The knowledge products have been uploaded in EIACP website <https://cpreecenvis.nic.in>. Links for the same are given below:

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- <http://cpreecenvis.nic.in/PublicationDetails.aspx?SubLinkId=2336&LinkId=6370&Year=2024>

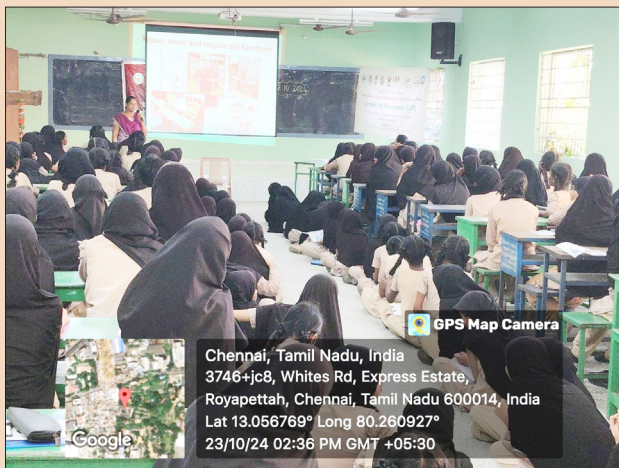
CPREEC EIACP PC-RP, Ooty Field Office celebrated Wildlife Week and organized an awareness programme under the theme Wildlife on October 07, 2024 at Hill Fort Matriculation Higher Secondary School, Keircombai, Kotagiri, The Nilgiris. Totally, **80 students, 6 teachers and 12 Forest Officials** attended the programme and awareness posters were distributed.





Mission LiFE Awareness Programme – October 23, 2024

CPREEC EIACP PC – RP, Chennai conducted LiFE Mission Awareness Programme under the seven themes at Government Hobart Higher Secondary School, Royapettah – 600014 on 23.10.2024. 168 students and 4 teachers participated and took the pledge on Mission LiFE. Awareness posters and a booklet on the theme of “Mission Life” were distributed.



Mission LiFE Awareness Programme – October 24, 2024

CPREEC EIACP PC–RP, Chennai conducted LiFE Mission Awareness Programme under the seven themes at Avvai Home TVR Girls Higher Secondary School, Adyar, Chennai - 600020 on 24.10.2024. 195 students and 4 teachers participated and took the pledge on Mission LiFE. Awareness posters and a booklet on the theme of “Mission Life” were distributed.



Mission LiFE Awareness Programme – November 05, 2024

CPREEC EIACP PC–RP, Chennai conducted LiFE Mission Awareness Programme under the seven themes at Indira Nagar Women’s Association, Indira Nagar, Adyar, Chennai - 600020 on 05.11.2024. A total of 38 Self-help group women and 7 association members participated and took the pledge on Mission LiFE. Awareness posters and a booklet on the theme of “Mission Life” were distributed.



Mission LiFE Awareness Programme – December 02, 2024

CPREEC EIACP PC–RP, Chennai conducted LiFE Mission Awareness Programme under the seven themes at Rani Meyyammai Girls Higher Secondary School, Raja Annamalaipuram, Chennai – 600028 on 02.12.2024. 55 students and 4 teachers participated and took the pledge on Mission LiFE. Awareness posters and a booklet on the theme of “Mission Life” were distributed.



International Cheetah Day – 04 December, 2024

Every year, **International Cheetah Day** is celebrated on **December 4th**, to raise awareness about the importance of protecting and conserving the cheetah species globally. Cheetahs are incredibly fast and absolutely gorgeous beasts. People from all over the world celebrate these majestic creatures and encourage efforts to preserve their habitat and ensure their survival for future generations. As part of observing International Cheetah Day-2024, CPREEC EIACP PC –RP, Chennai has developed an awareness poster.

INTERNATIONAL CHEETAH DAY

4TH DECEMBER 2024





Every year, International Cheetah Day is celebrated on December 4th, to raise awareness about the importance of protecting and conserving the cheetah species globally. Cheetahs are incredibly fast and absolutely gorgeous beasts. People from all over the world celebrate these majestic creatures and encourage efforts to preserve their habitat and ensure their survival for future generations.

Scientific Name : *Acinonyx jubatus*

Population Size : 6,500 – 7,000 (Africa and Iran)

Life Span : 12-15 Years

Top Speed : 112 Km/h

Weight, Length & Height : 40-60 Kgs, 112-150 cm and 70-90 cm

Geography : Africa, Central India and Iran

Reintroduction in India on September 17, 2022 : The Cheetah is the only species extinct from historical times. The Ministry of Environment, Forest and Climate Change (National Tiger Conservation Authority & Wildlife Institute of India), in collaboration with Government of Madhya Pradesh has prepared an action plan for introduction of the cheetah in India. Initially 8 cheetahs brought from Namibia were introduced. Subsequently, 12 cheetahs from South Africa were also relocated in 2023. Currently, there are 24 cheetahs in India. Of these 12 adults and 12 cubs are born here.

Habitat : Grasslands and plains, bushland, semi desert, African plains

Description : The cheetah is a large cat identified by black marks, running down from the inner eye along the nose to the outside of the mouth. The body is long and slender, covered with coarse yellowish fur with small black markings. The tail is spotted with ringed markings, having a black tip on its end. In addition, the tail is quite long, helping the cheetah to keep balance and change direction. The head is small and the eyes are set high, which help them find potential prey in the grasslands. The claws of a cheetah are non-retractable; they dig their claws into the ground, which enhances their grip at high speed.

Group Name : Coalition

Diet and Nutrition : Gazelles, Wildbeast, Impalas, Wildboar, Chinkara, Blackbuck, Sambar deer and other smaller herbivores.

Threats : Habitat loss, diseases, hunting, and direct persecution.

Status : **VULNERABLE ON THE IUCN RED LIST**




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The knowledge product has been uploaded in EIACP website <https://cpreecenvis.nic.in>.

Link for the same is given below:

<http://cpreecenvis.nic.in/PublicationDetails.aspx?SubLinkId=2338&LinkId=6370&Year=2024>

World Soil Day – 05 December, 2024

World Soil Day is held annually on December 5th as a means to focus attention on the importance of healthy soil and to advocate the sustainable management of soil resources. As part of celebrating the World Soil Day, CPREEC EIACP PC – RP, Chennai developed and released a booklet on the theme, ‘Caring for Soils: Measure, Monitor, Manage’.



The knowledge product has been uploaded in EIACP website <https://cpreecervis.nic.in>.

Link for the same is given below:

http://cpreecervis.nic.in/WriteReadData/Publication/Soil%20Pamphlet_HA4_2024_copy%2005.12.24_web.pdf

Green Skill Development Programme (GSDP) Inauguration: Bamboo Handicrafts

Greetings from CPREEC EIACP PC-RP, Chennai. Inauguration Invitation for the Certificate Course on Micro-Entrepreneur NTFP (Non Timber Forest Produce): Plant Origin – Bamboo Handicrafts at Sri Vijayapuram, Andaman & Nicobar Islands on December 20, 2024.

Green Skill Development Programme (GSDP) Inauguration: Coconut Shells & Fibre Handicrafts

Greetings from CPREEC EIACP PC-RP, Chennai. Inauguration Invitation for the Certificate Course on Micro-Entrepreneur NTFP (Non Timber Forest Produce): Plant Origin – Coconut Shells & Fibre Handicrafts at Uppatti, Pandalur, The Nilgiris on December 20, 2024.



HAPPY NEW YEAR 2025



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Abstracts of Recent Publications

- ❖ Ridhudas. C. and Nataraj B. Patted. (2024). “A Study on Impact Assessment of Ramayana Pilgrimage Circuit with Reference to Kerala”. In Book: *Religion Tourism and Pilgrimage in India* (pp.107-116) Publisher: Bharti Publications, New Delhi, India.
- Tourism is a significant industry in Kerala, as the state attracts millions of tourists each year. The government has been promoting tourism through various initiatives, such as developing infrastructure and promoting cultural and heritage tourism by creating new tourist circuits. One such initiative is the *Ramayana* circuit, which focus on the places associated with the Hindi mythological epic *Ramayana*. *Ramayana* circuit is one of the flagship initiatives of the government of India. It is a religious and cultural circuit that traces the journey of Lord *Rama*, as mentioned in the Hindu mythological epic *Ramayana*. It consists of a series of tourist destinations in India associated with *Ramayana*. In recent years, the circuit has been developed in Kerala to promote the state’s cultural and historical heritage. The circuit covers almost all the districts in Kerala. The important destinations which are part of the circuit are; *Panchavadi Anjaneya Temple Kalady*, *Valmiki Ashramam Triprayar*, *Shri Rama Swami Temple Triprayar*, *Thirunavaya Navamukuntha Temple*, *Payammal Temple*, *Kozhikode*, *Kodungallur Bhagavathi Temple*, *Shree Rama Swami Temple Thiruvananthapuram*, among others. The research paper aims to assess the impact of the *Ramayana* circuit on Kerala tourism. For the study, secondary information is obtained from various sources, such as government reports, academic journals, and online resources. The study concludes with recommendations for future research and suggestions for policymakers.
- Keywords:** *Ramayana Circuit, Impact Assessment, Kerala Tourism, Tourist Circuit.*
- ❖ Shilpa, B. and Ashalata, D. (2024). “Perceptions and linkage of indigenous community in conservation of sacred natural sites in Assam, Northeast India”. *Indian Journal of Traditional Knowledge*, Vol. 23 (4), pp. 316 – 323.
- Sacred natural sites are one of the most valuable ecosystems preserving the cultural integrity of different communities worldwide. Out of different sacred natural sites, sacred groves have acquired more importance due to spiritual theories and religious ethics. There are many sacred groves with diverse historical importance which are not yet been studied. The current study aimed to report the documentation and prominence established by the local community for the conservation of sacred groves in Assam during 2015 to 2017. Sacred groves were inventoried across the state, wherein sacred plants, people’s perceptions, and anthropogenic disturbances were studied. Assam is a culturally rich state, and various ethnic communities conserved a total of 282 sacred groves covering an area of 672.48 ha. 83 tree species belonging to 68 genera and 38 families were listed, out of which 15 sacred trees protected in the vicinity of the sacred groves. We observed a significant relationship between the cultural belief system and anthropogenic disturbances in the sacred groves, $\chi^2 (1, N= 768) = 50.032, p < 0.001$. The record on the degree of anthropogenic disturbances revealed 51% of wood collection from sacred groves, followed by browsing/ grazing activities (38%) and fire frequency of 11%. The result of our study has widened the perception of the need to conserve the sacred groves not merely for aesthetic but also for community implications intended for ecological significance.
- Keywords:** *Anthropogenic degradation, Disturbance, Management, Sacred groves, Traditional, Trees.*

- ❖ Poorva P. and Vaishali, L. (2022). “**Tracing the Evolution of Kanheri Buddhist Cave Complex, Salsette, Maharashtra**”. *International Journal of Engineering Research and Technology*, Vol. 10 (3), pp. 55 – 60.

The Rock-Cut Architecture of India has always been emphasized by researchers and the public because of the impressive architecture, art, and iconography of those extraordinary Rocks – Cut shelters. The natural setting of the caves has been used to represent Buddhist Philosophy and its representation through art and architecture. The geographical distribution of the cave sites shows that the coasts, as well as inland centres have numerous cave centres that are located on the routes of communication, near seaports, and near the natural passes. Cave typologies are preferred archetypes of the monastic life of monks since ancient times. Looking back into the history of Rock-Cut architecture, we find traces of many Rock-Cut monuments across the Western coastal plains. With more than 100 caves carved in basalt formation, Kanheri caves make one of the largest Buddhist monasteries in the Western Ghats of India. The development of Kanheri Cave complex is noticed from the 1st century BCE to the 11th century CE, an era that witnessed the rise and decline of Buddhism. The natural landscape of Krishnagiri hill ranges consists of distinctive and varied physical features that shaped the formation of Buddhist Architecture. The paper examines how caves serve as a sacred place for specialized activities of the monastic order in Buddhism. The research work is focused on unexplored attributes like typologies, water management systems, the iconography of cave architecture with the help of field studies, expert’s interviews, mapping of all types of resources in the identified study region. The study revealed that Kanheri caves

are representative of all phases of Buddhist Architecture and more than 2000 years old relict Buddhist Monastery parallel to Nalanda Mahavira. Though it is considered an archaeological site still the religious aspect is continuing at the international level.

Keywords: *Rock-Cut Architecture, Buddhist Art and Culture, Kanheri Caves.*

- ❖ Gupta, N., Kanagavel, A., Dandekar, P., Dahanukar, N., Sivakumar, K., Mathur, V. B., and Raghavan, R. (2016). “**God’s Fishes: religion, culture and freshwater fish conservation in India**”, *Oryx*, Vol. 50 (2): pp. 244 – 249.

Indigenous communities worldwide have long relied on their environment for survival. Religious and customary beliefs that foster community conservation have not only bound these communities to ecosystems but also assisted in the conservation of species. We provide an example of how religion fosters the conservation of freshwater fishes in India. Since ancient times rural communities in India have revered fish species as symbols of divine power, and offered them protection in pools associated with temples. Such voluntary, informal institutions and arrangements continue to help conserve several freshwater fish species that are otherwise subjected to anthropogenic pressure in open-access area. However, religious beliefs in India are waning as a result of increased urbanization, modernization of societies and disintegration of rural communities and the sustainability of existing temple and community fish sanctuaries are questionable. We discuss the role of temple sanctuaries as an informal conservation strategy for freshwater fishes, and discuss the knowledge and policy gaps that need to be addressed for ensuring their future.

Keywords: *Beliefs, Buddhism, Fish, Hinduism, Mahseer, Sacred, Taboos, Temple sanctuaries.*



Website: www.cpreecenvis.nic.in

The screenshot shows the website interface for CPREEC - EIACP Programme Centre. The header includes the Government of India logo, the CPREEC logo, and the text: "CPREEC - EIACP Programme Centre, Resource Partner on Ecological Heritage and Sacred Sites of India". Below this, it states "Hosted by C.P.R. Environmental Education Centre, Chennai" and "Sponsored by Ministry of Environment, Forests & Climate Change, Govt of India". The navigation menu includes: Contact Us, Experts, About Us, ENVIS Network, Online Query, Feedback, Site Map, Related Links, and Site Search. The main content area is divided into several sections:

- LOGIN:** Fields for Username and Password, with links for Sign-Up, Help, and Forgot.
- Subject Area:** Conservation of Ecological Heritage and Sacred Sites of India. Sub-sections include Sacred Animals, Sacred Mountains, Sacred Plants, Sacred Caves, Sacred Gardens, Sacred Rivers, Sacred Cities / Sites, Green Pilgrimage, Sacred Forests, Sacred Waterbodies, and Sacred Seeds.
- PUBLICATIONS:** Links for Newsletter, Booklet, and Books.
- PERFORMANCE REPORT:** Select Year, Parameter, and Periodicity dropdowns, with a Search button.
- EVENTS:** Info-graphic Standee and ba..., International Day for Biolo..., WORLD ENVIRONMENT DAY..., and Past Events.
- NEWS / MEDIA:** Why painted storks flock, The power of Prahlad's Un, CM inaugurates Keezhadi M, Assam's moidams fit UNESC.
- ABSTRACTS:** Search and See All buttons.
- GLOSSARY:** Search and See All buttons.
- Video Gallery:** Sacred Cities/Sites..
- Social Media:** Instagram.. You tube..

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