

Weekly magazine

PRAKRITI



Quest For Nature



Flora of the week

Phyllostachys aurea
or
Golden Bamboo

Fauna of the week

Elephas maximum
or
Elephant

Bird of the week

Edible-nest swiftlet
or
Aerodramus fuciphagus

Officers' Club

Central Academy for State Forest Service, Dehradun

FLORA OF THE WEEK

Phyllostachys aurea

Golden Bamboo



Central Academy for State Forest Service
Dehradun

Golden Bamboo is native to Southeast China and is a member of the Grass Family. In 1882, it was introduced to United State. It is fast growing Evergreen plant and can colonize quickly. It is perennial, long lived and attractive 'Running Bamboo' type which have straight and hard pole. It's golden yellow colored pole with green lining show the beauty of nature and create unique sound when wind blow. The branches and stems are green but turn Golden Yellow with age.



Ecological Importance and Uses

Aesthetic value, Impact on native vegetation, used as noise and visual barriers, rapid growth, food and shelter for birds and small mammals. Young shoots utilized as food, used to make canes, fishing poles, fishing nets, ski poles, javelins, irrigation pipes, musical instruments, furniture, umbrella and fan handles.

Phyllostachys aurea is a popular garden ornamental, where it is also used as a hedge. This is a good companion species to grow in a woodland because the plants have shallow root systems that do not compete with deep tree roots.



Distribution

China, Australia, United States

Taxonomic Description

Clumps: Single Branching stems, Golden yellow color.

Stems: 2-12 m tall, 9-15 cm diameter, Swollen Nodes which generate two branches.

Sheath: over stem, having two wings like structure on the either side of blade.

Leaves: leaf blades are narrow, grass like, 5-15 cm long, up to 2cm wide, arranged in fan like clusters, branches produce up to 6 leaves.

Flowers and Seeds: Rarely produced, spikelet type, 2.5cm long and 8-12 numbers.

Rhizomes: long, slender, hollow and branched rhizomes, with nodes & internodes.

Regeneration: Rarely by seeds, generally new shoots are dark green coloured and arise by bud of nodes of rhizome.

Kingdom	Plantae
Phylum	Angiosperma
Class	Monocots
Order	Poales
Family	Poaceae
Genus	<i>Phyllostachys</i>
Species	<i>aurea</i>



FAUNA OF THE WEEK

Elephas maximum

Elephant



Central Academy for State Forest Service
Dehradun

Elephant is largest land animal. There are two species one is Asian elephant and another one is African. Proboscideans or 'trunked creatures' are large land mammals with naked wrinkled grey skin, enlarged incisors that form tusks, an elongated snout that forms a trunk, extra-large ears that aid cooling of the body, columnar les that support their massive weight and a medium sized tail with stiff bristles forming a tuft at the end. They are intelligent animals with a complex social structure and have a long lifespan averaging 60 years or more family groups that consist of female of all age group and young one is led by a matriarch. All male group and loner condition also exist. There are three type of communication viz. infrasonic communication, chemical communication and gesture communication for coordination and other activity.



IUCN Status: Vulnerable



It has a convex or humped back with a ridge along the spine, a double-domed forehead (sometimes highly pronounced), wedge-shaped ears and a smooth trunk ending in one tip or 'finger'. Only male Asian Elephants have large tusks, while females have very small dental protuberances called tushes. Some males, called *makhnas*, are tuskless and can be distinguished in the field from adult females by the penis bulge below the tail. Elephants are polygynous sexually dimorphic animal. Generally male has to be double the size of female to fertilize. Musth is a condition known in male of increased aggressiveness to other males.

Kingdom	Animalia
Phylum	Chordata
Class	Mammalia
Order	Proboscidea
Family	Elephantidae
Genus	<i>Elephas</i>
Species	<i>maximum</i>

Distribution: In the plains of north, south, east-central and north-east India in four clusters. In the south, they are found in the Western Ghats and some adjoining hill ranges of the Eastern Ghats in the states of Karnataka, Kerala, Tamil Nadu and (more recently) Andhra Pradesh. In east-central or south-east India, elephants are found primarily in the states of Odisha and Jharkhand, with seasonal movement into southern West Bengal and Chhattisgarh. The elephants in northern India are found in a wide belt along the Himalayan foothills (the Terai-Bhabar region) in the states of Uttar Pradesh and Uttarakhand Further west, it extends up to the Garo Hills of Meghalaya through the Khasi Hills, parts of the Brahmaputra plains and the Karbi hills.

Fun Fact:

- ✚ Elephant is a mega-herbivore and, due to its size, requires a huge amount of forage every day. Because of this it is also c/d as **Engineer** of the forest.
- ✚ Elephant headed god named **Ganesha** is revered for intelligence and wealth. Their society is **fission-fusion form** society.

Threats and Conservation: -

- ✚ Corridor Destruction restricts movement of the elephant. On an average they move 300- 1000 sq km annually to meet the heavy food demand (mega herbivore).
- ✚ Habitat destruction
- ✚ Poaching for ivory
- ✚ Retaliatory killing for crop raiding.

BIRD OF THE WEEK

Edible-nest swiftlet

Aerodramus fuciphagus



Central Academy for State Forest Service
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The **edible-nest swiftlet** (*Aerodramus fuciphagus*), also known as the **white-nest swiftlet**, is a small bird of the swift family which is found in South-East Asia. Its opaque and whitish nest is made exclusively of solidified saliva and is the main ingredient of bird's nest soup, a delicacy of Chinese cuisine. The edible-nest swiftlet, generally with a body length of 14cm (5.5. in), is a medium-sized representative of the salangans. The upper part of the slender body is blackish-brown; the under part of the body ranges in colour from white to blackish-brown. The tail is short and has a slight notch. The bill and feet are black. Legs are very short and tarsi are usually unfeathered or lightly feathered. It weighs 15 to 18 grams and the wings are long and narrow. In flight the swept-back wings resemble a crescent.



Distribution: This species is present in the Andaman's, in the coasts of South-East Asia and in the Indonesian Archipelago. The range is quite extensive, but highly fragmented. The edible-nest swiftlet may occur in elevations of 0 to 2800 meters.

Kingdom	Animalia
Phylum	Chordata
Class	Aves
Order	Apodiformes
Family	Apodidae
Genus	<i>Aerodramus</i>
Species	<i>fuciphagus</i>

Ecology and Behaviour:

The edible-nest swiftlet feeds over a range of habitats from coastal areas to the mountains, occurring up to 2,800 metres above sea-level on Sumatra and Borneo. These birds generally occur above forests, the forest edge, but also in open country. These birds spend most of their lives in the air. Its diet consists of flying insects which are caught on the wing. They also drink on the wing. They often feed in large flocks with other species of swiftlet and swallow. It breeds in colonies in coastal area, in limestone caves, in rock crevices, in a cleft in a cliff or sometimes on a building. The bracket-shaped nest is built on a vertical surface and the long legs are used for clinging. These swifts never settle voluntarily on the ground. The nest is white and translucent and is made of layers of hardened saliva attached to the rock. It measures about 6 cm across with a depth of 1.5 cm and a weight of about 14 grams. Two white, oval, non-glossy eggs are laid. At breeding colonies, the bird emits high-pitched and burbling calls. They also emit a rattling call used for echolocation, which enables them to look for their nesting sites in the darkness of caves.

Reproduction and breeding habits:

The breeding season of the swiftlet species is mainly in March and April in Andaman and Nicobar Islands. They breed in colonies in caves. Considering the commercial aspect of the edible nest and also with consideration for conservation, bird houses are being built to entice the swiftlets to roost and build edible nests. The nest of edible-nest swiftlet is constructed by the male exclusively with its gummy saliva. No plant material is incorporated and the 'home' building may take nearly one month to complete. The shiny, translucent half-cup edible nest is stuck to the vertical cave walls. Usually, the clutch has two eggs. The breeding pair may raise a second brood, if not disturbed.

Fun Facts:

- ✚ The Swiftlet builds a nest that is not only edible for humans but is considered a rare delicacy and it is built out of the bird's saliva solidifier.
- ✚ When exposed to sunlight, the white nest gets a golden hue. Because of this, the nest is often referred to as white gold.