

PRAKRITI, 05<sup>th</sup> October 2020, Issue 15



# PRAKRITI

Quest for nature



Officers' Club, CASFOS, Dehradun

# FLORA OF THE WEEK

## *Ficus virens*

### Pakhad or Pilkhan



Central Academy for State Forest Service  
Dehradun

#### Introduction:

It is a medium sized tree which grows to a height of 23 to 28 metres in dry area and up to 30-32 metres tall in water area. In the Indian environment it has two marked growth periods: in spring (February to early May) and in monsoon rain (June to early September). It is a fig tree belonging to the group of trees known as strangler figs, because its seeds can germinate on other trees and grow to strangle and eventually kill the host tree.



#### Morphology:

The genus *Ficus* falling within evergreen, semi-evergreen and deciduous species, which occupy almost any possible plant form, such as trees of large, medium and low growth, as well as shrubs, vines and climbers. On the other hand, several species are epiphytes and other hemiepiphytes, while some are rheophytes and some other purely lithophytes. Amongst their undoubtedly distinct place possess the 'stranglers' species. It initially grows on the branches of other trees from seed that have deposited frugivorous birds. From there it develops blastogenic roots that penetrate the soil. The aerial part of these roots becomes trunkish while at the same time continuing to develop blastogenic roots.



|         |               |
|---------|---------------|
| Kingdom | Plantae       |
| Order   | Rosales       |
| Family  | Moraceae      |
| Genus   | <i>Ficus</i>  |
| Species | <i>virens</i> |

#### Uses:

Young shoots and young leaves - raw or cooked. An acid flavour. They are sometimes used, in the preparation of curries.

Fruit - raw or mixed with fresh raw vegetables.

The globose fruits are 12 - 15mm in diameter.

A decoction of the bark is used as an injection in the treatment of leucorrhoea.

Applied externally, a bark decoction is used as a wash on ulcers and as a gargle in salivation.

Grown as a shade tree in coffee plantations.



#### Distribution:

*Ficus virens* is found in India, Nepal, Pakistan, and South-east Asia through Malaysia, Africa, North America and Australia.



#### Religious Significance:

*Ficus* is a relatively ancient genus being at least 60 million years old, and possibly as old as 80 million years. The fruits of most of *Ficus* species are edible and impart economic importance or eaten as bush food. The three plants Bargad, Peepal, and Pakhad (Pilkhan) planted altogether are called "Tri-Shankri" plant which represent the three God Brahma, Vishnu and Mahesh in Hindu mythology.

# FAUNA OF THE WEEK

## *Chitra indica*

(Indian narrow-headed softshell turtle)



### Classification-

Kingdom - Animalia  
Phylum - Chordata  
Class - Reptilia  
Order - Testudines  
Suborder - Cryptodira  
Family - Trionychidae  
Genus - *Chitra*  
Species - *indica*

WPA, 1972: Schedule II

IUCN Status: Endangered

### Basic Details-

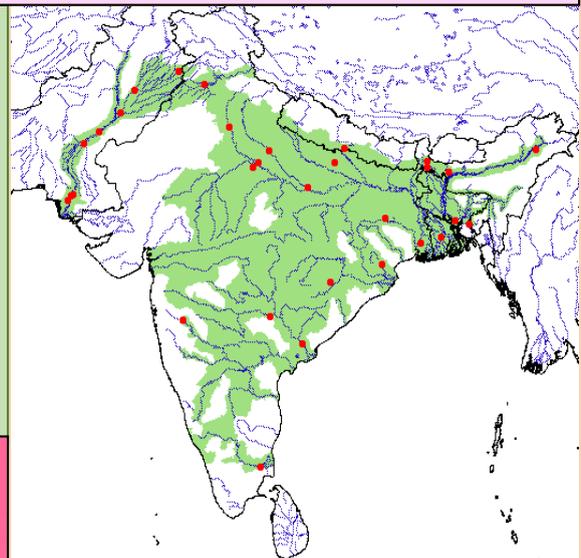
- ❖ Range mass- 2.8 to 250 kg Range length- up to 1.5 m
- ❖ Breeding season- August to September or February to May
- ❖ Clutches containing- 65-187 eggs
- ❖ Incubation period- 40 to 70 days, 25.5° to 36.0°C Hatching- May and June
- ❖ Lifespan- 40 -60 years
- ❖ Ectothermic Bilateral symmetry Female larger
- ❖ Diet- Carnivore (piscivore, eats non-insect arthropods, molluscivore, scavenger, fish, terrestrial worms)
- ❖ Ecosystem Impact- Biodegradation

❖ Head extremely narrow with eyes situated close to the nostril, A 'V' shaped mark commences from the nape and extends to carapace. the shell is oval, flattened & soft with the presence of four pastoral callosities, Between the first pair of costal a signal neural is present, a short proboscis present on the end.

❖ It will bury itself in the sandy sediments of rivers and spend most of the day submerged. This carapace tends to be bluish grey or olive with intricate wavy reticulations present.

❖ Males usually have longer tailed when compared to females, however females tend to achieve a greater overall size. Due to its secretive nature little is known about the reproductive habits of *Chitra indica*. However, females must come onto sandy beaches in order to excavate holes and lay clutches of eggs. (170 egg in a season).

**Distribution -** The Indian narrow headed soft-shell turtle is widespread in South Asia, its distribution including the river Indus, Ganga, Godavari, Mahanadi and Padma in India, Pakistan Bangladesh and Nepal.



### Hatching-December 2019



### Kukrail Rehabilitation Centre Lucknow-

- ❖ *Chitra* is one of the most hunted soft-shell turtles, translocated clutches and 25 hatchlings from Yamuna and upper Ganga to Rehabilitation center in 2012 to 2015. In 2016 Total 75 Turtle present.
- ❖ The highest rate of mortality was observed within three months of hatching. Hatchlings need diverse range of temperature. Hatchlings like to burrow in shallower areas of the pond so they can stick their neck out to ambush. Feeding should be started 20 days of hatching. Nest protection initiative started by TSA in 2018 which was successful.

Six-Year-old

❖ In 2020, 200 eggs reared through Namami Gange Programme.

❖ *Chitra indica* strikes with the head and neck have been known to cause damage to small fishing boats.

❖ When it handled it produces a musky odour, which could be used to signal distress.

❖ *Chitra* has been hunted for the harvest and sale of its outer cartilaginous rim or "calipee". The dried calipee is then exported for use in traditional medicine or as the stock of a luxury soup.



# BIRD OF THE WEEK

## *Parus monticolus*

### Green-backed tit



Central Academy for State Forest Service  
Dehradun

#### Physical Description;

They have green wing feathers and a black breast stripe running vertically from the throat to their belly, similar to their sister species, the European great tits (*Parus major*), bright yellow belly, greenish back, and two narrow white wingbars rather than one broad one. The Green-backed tit has an average body length of 12cm and a wing length of 6.5cm. With the exception of their cheeks, auriculars, and napes, their black heads and necks are mixed with shimmering blue feathers. The main characteristics of the Green-backed tit are the white patches on their cheeks and the black stripe on the center of their lower bellies, which is narrower on females than on males.



#### Reproduction: Low dimorphism

Mating system - Monogamous

Breeding season – April to June

Average eggs per season – 4

Range eggs per season – 2 to 6

Range time to hatching - 23 to 27 days

Range fledging age – 19 to 21 days



#### Fun Facts:

-The Green-backed Tit (*Parus monticolus*), are caterpillar specialist.

-Birds with broader breast stripes are usually socially dominant and we can see these birds displaying their breast stripes during dominance interactions

-Males had longer beaks in winters than in summers, while the females had a constant beak length across seasons.

-Tits are widespread songbirds.

IUCN Status: Least Concern

|         |                   |
|---------|-------------------|
| Kingdom | Animalia          |
| Phylum  | Chordata          |
| Class   | Aves              |
| Order   | Passiriformes     |
| Family  | Paridae           |
| Genus   | <i>Parus</i>      |
| Species | <i>monticolus</i> |

#### Behavior and Ecology:

Forages at middle and upper levels in forests, often in pairs or as part of mixed-species flocks. Song a series of 3-4 whistles. Calls infrequently, a gruff “deedeede.” Habitat-specific seasonality in larval abundance affected nestling conditions. Early-brood nestlings in the broadleaf habitat were heavier than those in the coniferous habitat. However, the between-habitat difference disappeared in the late broods because the mass of nestlings in the coniferous habitat increased significantly. However there were no differences in annual breeding density, late-brood frequency, laying date, clutch size, or fledging success between the two habitats. During paucity of larvae, they also feed on insects as well as seeds and

#### Distribution and migration:

It is found in Bangladesh, Bhutan, China, India, Laos, Burma, Nepal, Pakistan, Taiwan and Vietnam. Its natural habitats are boreal forests, temperate forests, and subtropical or tropical moist lowland forests. They prefer broadleaf (mixed-oak forest) and coniferous (conifer plantation) habitats in subtropical forests (up to 2800 m).



#### Threats and conservation:

Like all other Himalayan birds, they suffer from habitat loss due to anthropogenic activities. They are mountain birds not specialized for other habitats. They are currently common birds but that doesn't mean we should be complacent and not protect the species. It is important to keep the common birds common.

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