

## Floral and Faunal Biodiversity of WII Campus

B.S. Adhikari and G.V. Gopi

### The Campus

Wildlife Institute of India (WII) campus is located in the southern fringe of Dehra Dun. It lies between 77°57'50" to 77°58'45" E longitude and 30°16'40" to 30°17'15" N latitude with an altitudinal range from 640-665 m asl and covers an area of ca.88 hectare. The topography of the campus is dendritic type, small channels drain in to Asan river, a tributary to river Yamuna, flows on the northern periphery of the campus. In general, the vegetation of WII campus is natural and semi-natural, represented by various succession stages e.g., grassland (*Saccharum* community, *Cynodon* community, *Phragmites* community, *Imperata* community, *Typha* community and mixed grass community with *Lantana*), scrubland (*Lantana* community and mixed shrub community), riverine forest (*Sapium* community close to water and *Broussonetia papyrifera* community in moist places and woodland of coppice Sal community and old Sal community).

Albeit the Sal forest of WII campus is not very rich in diversity, yet it is very important from conservation point of view, since Sal covers 5% of total forested land of the country. It faces anthropogenic pressure in terms of extraction of fuel wood, grazing and fire. Being summer deciduous, the forest floor is full of dry leaves (ca. 95%) and twigs, which enable fire to spread rapidly in the forest.

### Flora

The campus has the floral diversity of 616 plants, which is almost one third of Doon valley flora. Of the total plant species, 94% (577) species are naturally grown and 6% species are planted. The distribution of plants in different taxa is as follows: 58 trees, 65 shrubs, 357 herbs and climbers including 9 species of pteridophytes, 71 grasses and 27 sedges in WII campus belonging to 107 families (99 Angiosperm and 8 Pteridophyte) with 384 genus (375 Angiosperm and 9 Pteridophyte). *Dioscorea belophylla* is the only species, which is under vulnerable category. Among families, Poaceae is represented by maximum number of species (71) followed by Fabaceae (60), Asteraceae (38) and Cyperaceae (27).

In last few years changes have taken place in various habitats, due to which species like *Alternanthera pugens*, *Aechmanthera gossypina*, *Hygrophila auriculata*, *Justicia adhatoda*, *Sauromatum venosum*, *Trianthema portulacastrum*, *Wrightia tomentosa*, *Erigeron*

*karvinskianus*, *Ageratum houstonianum*, *Eruca sativa* and *Iberis amara* are becoming less visible, whereas *Hygrophila salicifolia* has made its presence in the campus.

### Fauna

The WII campus harbours immense faunal wealth. 310 avifaunal species belonging to 49 families, 16 mammalian species belonging to 15 families, 11 amphibian species belonging to 4 families, 90 butterfly species belonging to 5 families, 16 moth species belonging to 7 families, 22 reptile species belonging to 7 families and 17 spider species belonging to 6 families have so far been recorded.

Species rich avifaunal families include Sylviidae (37 species), Muscicapidae (35 species), Corvidae (28 species), Accipitridae (24 species) and Passeridae (21 species). Thirteen avifaunal families (Rostratulidae, Irenidae, Burhinidae, Caprimulgidae, Centropidae, Cerylidae, Coraciidae, Hemiprocnidae, Pittidae, Podicipedidae, Tytonidae, Upupidae and Zosteropidae) have just one species represented. The mammalian family of Viveridae has two species, while other families are represented by one species each.

The IUCN threat status of birds in the campus reveals that, of the 310 bird species, 3 species (White-rumped Vulture, Slender-billed Vulture, Red-headed Vulture) are categorized as Critically Endangered, one species (Egyptian Vulture) as Endangered, three species as Near Threatened (Cinereous Vulture, Ferruginous Pochard, Painted Stork), one species (Imperial Eagle) as Vulnerable and the rest 302 species have been categorized as Least Concern. Of the 310 bird species, 10 are accorded schedule I status and the rest 301 have been accorded the Schedule IV status in the Indian Wildlife Protection Act (IWPA). The IUCN threat status of mammals in the campus reveals that, of the 16 mammalian species, 2 species (Indian pangolin and common leopard) are categorized as Near Threatened and rest 15 species as Least Concern. Of the 17 mammalian species, 2 are accorded Schedule I, 6 are accorded Schedule II, 2 are accorded Schedule III, 3 are accorded Schedule IV and 3 are accorded Schedule V status in the IWPA.

adhikaribs@wii.gov.in



Baya Weaver

G.S. Bharadwaj



Urena lobata

BS Adhikari



Tricarinate hill turtle

G.S. Bharadwaj



Orange-tip Butterfly (painting)

Asha Jain



Monocled Cobra

Kuldeep Chauthan



Tufted Duck

Subharanjan Sen