

**Institute level periodical seminar on
“Reproductive Biology: In Tropical Forestry; from hybridisation to species recovery”**

Institute of Forest Genetics and Tree Breeding, Coimbatore organised the second institute level periodical seminar on 21st July, 2017 at the institute. Dr. B. Nagarajan, Scientist-G made the presentation on “**Reproductive Biology: In Tropical Forestry; from hybridisation to species recovery**”. The Scientists, officers, and research staff including JRF’s, SRFs, and RA/FA’s of the institute attended the seminar. The seminar aims to share the knowledge and vast experience about reproductive biology in tropical forestry from hybridisation to species recovery.

Dr. B. Nagarajan during his presentation informed that phenology, reproduction in plants and protection of trees have found place in various sculptures and cultures of the world and evidences for the same are available from second B.C onwards. He highlighted the recent developments in reproductive biology of tropical forest plants and the need to explore the implications of current findings on forest structure, function, management and conservation. He also mentioned how insights gained from reproductive biology, defined in a broad sense to include seedling establishment and regeneration can be helpful in the management of tropical forest resources and signposts for future research.

He also added that loss of biodiversity is a worldwide concern and the primary cause of species loss is habitat destruction and fragmentation. But the rate of extinctions might be accelerated due to other causes such as invasion of alien species, overexploitation, climate change, habitat deterioration etc. He informed that within inflorescences both temporal and spatial variations can be observed. He also said that morphological parameters of a flower depend on several factors like intra-plant position of the flower, other extrinsic and intrinsic factors, resulting in altered intra-inflorescence flower sizes or numbers, fruit set or seed set.

He shared his vast experiences in pollination of various forest tree species namely eucalyptus, teak etc. He added that the teak is cross pollinated and seed orchards and natural sources are not comparable in seed production. Forest types, type of pollination and parental influence on pollination, seed filling and seed production were briefed in detail and he mentioned that control pollination give better output and even 99 % precision can be achieved in some species. The problems associated with the pollen storage and the methodologies developed to overcome such problems were also explained in a précised manner. The tere-grandis (*E.tereticornis* X *E.grandis*) reported as good performers with increase in biomass yield, pulping ability and veneer ideotype percentage. Need to conduct trainings and co-ordination with other institutes for addressing the research gaps and for identifying future research problems were discussed.

