

## Research Finding's

#### Arid Forest Research Institute, Jodhpur

The study conducted on biological diversity in Raj Bhavan Areas of Mt. Abu in Rajasthan indicates dominance (i.e., highest importance value index) of *Mangifera indica* followed by Phoenix dactylifera. The least dominant tree species are *Butea monosperma*, *Citharexylum substratum*, *Crateva religiosa*, *Eriobotrya japonica*, *Juniperus communis*, *Lannea coromandelica*, and *Michelia champaca*.

#### Forest Research Institute, Dehradun

- Six samples of lepidopterous larvae/cocoons were collected from Rohtak, Mahendragarh, Rewari and Jhajjar in Haryana from different forestry trees: Cassia fistula, Tectona grandis and Acacia latifolia for their laboratory rearing which was continued for emergence of Apanteles spp. and some unknown lepidopterous larvae were also reared. Eight specimens were sorted out from collected samples. Slide preparation, photography and species identification of Apanteles spp. are in progress under the project "Studies on taxonomy and host range of larval Parasitoids, Apanteles spp. (Hymenoptera: Braconidae from Uttarakhand and Haryana".
- Eighty insect samples were collected from various localities of Rohtak, Mahendragarh, Rewari and Jhajjar in Haryana and districts Bahraich, Shravasti, Balrampur, Gonda and Basti from Uttar Pradesh for the screening of egg parasitoids. Fifty egg parasitoids were sorted out from collected samples. Nineteen samples of insect eggs were collected from different forestry trees: Acacia latifolia, Tectona grandis, Mallotus philippensis, Cassia fistula, Holoptelia integrifolia. Slide preparation and photography are in progress under the project "Studies on diversity and host range of hymenopteran egg parasitoids from northern India (Haryana, Uttar Pradesh and Uttarakhand)".
- Larvae of 4 species of lepidoptera collected from ban oak trees during the surveys were reared for life history studies in

- the laboratory. 18 of them are in pupa stages under hibernation and there was emergence of two species of lymantrid & geometrid moths.
- 650 species were digitized 270 with DSLR (in cabinet nos. 35, 37, 38, 41, 47, 54, 65, 67, 99, 101, 102, 105, 106, 115, 122, 123, 124-26) and 380 with stereo zoom microscope (in cabinets no. 115, 122-127) and about 1200 photographs of these species were edited and stored. Database was updated for editing species holding data in the database under the project "Digitization and enrichment of National Forest Insect Collection (NFIC) of Forest Research Institute, Phase-II (minute insects)".
- Study of influence of Forest fires on nutrients in burnt and unbrunt Chirpine forests during 2017-18 post fires period in upper Yamuna Forests suggests that the water holding capacity, electrical conductivity (EC) & soil organic carbon (SOC) increased in burnt site as compared to unburnt site. The available nutrients i.e. N, P, & K also followed similar trend.
- The study on soil nutrient pool in different forest types of Uttarakhand revealed that the pH of soil is more acidic in Kharsu Oak, Chirpine Forests compared to Banj Oak Forests.
   The SOC and available nutrients (N, P & K) decreased down with soil depth and was higher in Banj Oak followed by Kharsu Oak and Chirpine Forests.
- The chloroform extract Cassia tora endosperm was quantitatively analyzed by HPLC for presence of anthra quinones. It indicated the presence of emodin, chrosophenic acid and rhein.
- Two populations of Quercus semicarpifolia (QS-21 and QS-23) grown in the forests of Nag Tibba, Tehri and Kunjakharak, Nainital, Uttarakhand were characterized for the first time for total phenolic contents determined in their leaves.
- Two populations (VAJ-10-PT and VAJ-10-BT) of Valeriana jatamansi collected from Arunachal Pradesh was

## 1CFRE NEWSLETTER

February 2019

characterized for the first time for their volatile constituents determined in their rhizomes.

#### Himalayan Forest Research Institute, Shimla

- Identification of 24 specimen of insect species upto species level was authenticated at FRI, Dehradun. Out of them 15
- belong to the order Coleoptera, 1 belongs to Lepidoptera and 8 belong to hymenoptera.
- Identification of 35 wild mushroom species collected from the different parts of Kinnaur district was also authenticated at FRI Dehradun. The identified species represent 19 families.



ICFRE, Dehradun presently works on nine consultancy projects, which were awarded by Tehri Hydro Development Corporation India Ltd; Himachal Pradesh Power Corporation Limited; Karnataka State Official Authority; Uttarakhand Jal Vidyut Nigam Limited (UJVNL); MoEF&CC Gol, New Delhi; Coal India Limited, Kolkotta; NTPC Ltd Noida and NMDC Ltd, Hyderabad.

## Tree Growers/ Kisan mela

Institute	Organized/Participated	Duration	Place
IFP, Ranchi	Kissan Mela cum Exhibition	6 February 2019	CTRTI, Nagri Ranchi
	Krishi Kumbh Mela	9-11 February 2019	Motihari, Bihar
IFGTB, Coimbtaore	Tree Growers Mela	13 February 2019	A.S. Mahal, Tiruvannamalai
IWST, Bengaluru	2nd Udyamsamagam	14-16 February 2019	Police Maidan Kannur, Kerala



Tree Growers Mela at Tiruvannamalai, Coimbatore



S.No.	Topic	Duration	Beneficiaries		
Institute of Forest Genetics and Tree Breeding, Coimbatore					
1.	Ecology and Climate Change: Perspectives, Prospects and Insights	28 February 2019	Officers, Scientists, Technical staff & Research Scholars of IFGTB		

## 1CFRE NEWSLETTER February 2019

#### Forest Reserach Institute, Dehradun 2. Role of Agroforestry and Wood Technology for 1 February 2019 Farmers, Government and Livelihood Improvement Non-Government Organizations, Forest Departments, Self Help Groups, Wood Industries **Arid Forest Research Institute, Jodhpur** Intellectual Property Awareness in 20 February 2019 Scientists/Officers/ 3. Forestry Research Technical Staff/ Research Scholar Himalayan Forest Research Institute, Shimla Eco-restoration of degraded areas Scientists, officers, 4. 22 February 2019 of Cold Deserts in Himachal Pradesh research and technical



support staff

Monthly Seminar on Eco-restoration of degraded areas of Cold Deserts in Himachal Pradesh and Jammu & Kashmir

## Training Programme

and Jammu & Kashmir

S.No.	Торіс	Duration	Beneficiaries		
	Forest Research Institute, Dehradun				
1.	Forest Entomology & Pest Control	14 February – 20 March 2019	-		
2.	Value addition and marketing on NTFPs and Medicinal Plants	4 - 19 February 2019	13 participants from different states of India		
	Institute of Wood Science	and Technology, Bengaluru			
3.	Wood Protection	4-8 February 2019	Naval Dockyard, Mumbai & Visakhapatnam and War Overseeing Team (WOT), Mumbai		
4.	Sandalwood: Seed Handling, Nursery, and Plantation Technology	18 - 22 February 2019	Farmers from various states and NGO's.		

# 1CFRE NEWSLETTER February 2019

	Tropical Forest Research Institute, Jabalpur				
5.	Small Botanical Garden under GSDP training programme	7 January to 8 February 2019	Unemployed youth and students		
6.	Agroforestry and its management	19,20 and 21 February 2019	Women farmer, NGO, Unemployed youth, farmer, Academicians		
7.	Forest Entomology and Pest Control under GSDP training programm	29 January to 28 February 2019	Unemployed youth and students		
	Arid Forest Research Institute, Jodhpur				
8.	Waste Management of Green skill development Programme	4 February 2019	Science graduates		
9.	New Technology in Forestry	12 to 14 February 2019	Members of Village Forest Protection and Management Committee and Field Functionaries of State Forest Department		
10.	Management of Small Botanical Gardens	15 January to 13 February 2019	Trainees aspirant to open private Forest Nurseries		



Training on Management of Small Botanical Gardens

Rain Forest Research Institute, Jorhat				
11.	Bamboo Craft" under Green Skill Development Programme (GSDP)	11 February to 23 March, 2019		
12.	Propagation and Management of Bamboo under Green Skill Development Programme (GSDP)	25 February to 23 March, 2019	-	
13.	Bamboo propagation and Nursey Management under VVK.	26 and 27 February 2019	-	

## 1CFRE NEWSLETTER

February 2019

14. Development and Management of Bamboo Kisan Nurseries

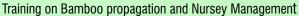
27 and 28 February 2019

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15. Skill Development on Bamboo Handicrafts for Promotion of Community Enterprises

27 and 28 February 2019







Training on Development and Management of Bamboo Kisan Nurseries

#### Himalayan Forest Research Institute, Shimla

16. Cultivation of important high value temperate medicinal plants

19 February 2019

Stakeholders





Training on cultivation of important high value temperate medicinal plants

Institute of Forest Productivity, Ranchi				
Bamboo Nursery and Management	4-8 February 2019	Forest Guards of SFD, Jharkhand & Odisha		
Bamboo Propagation and Management	12 February – 29 March 2019	Students, Famers		
Institute of Forest Bio	Institute of Forest Biodiversity, Hyderabad			
Preparation of Andhra Pradesh Working plan	5 – 8 February 2019	DFOs & FROs of Paderu & Visakhapatnam Divisions		
Preparation of Andhra Pradesh Working plan and data collection on carbon	11 – 15 February 2019	DFOs & FROs of Guntur & Krishna Divisions		



- IWST, Bengaluru organized the following programs in February 2019 under PRAKRITI program.
  - 200 students of 6<sup>th</sup>, 7<sup>th</sup> and 8<sup>th</sup> grade from Kendriya Vidyalaya, Malleswaram, Bengaluru visited the institute on 4 February 2019.
  - 200 students of 7<sup>th</sup>, 8<sup>th</sup>, 9<sup>th</sup> and 11<sup>th</sup> grade from Kendriya Vidyalaya, Malleswaram, Bengaluru visited the institute on 5 and 6 February 2019.
- TFRI, Jabalpur conducted a programme for students of Kendriya Vidyalaya, Barkuhi, Chhindwara District under "PRAKRITI" on 7 February 2019.
- AFRI, Jodhpur delivered a lecture on the topic," Forest and Environment Conservation' was to 985 students of class 1 to 11 (35 teachers also participated in the program) of Kendriya Vidhyalaya on 27 February 2019. Research activities of AFRI, Jodhpur displayed through posters, forest products, seedlings raised in AFRI nursery.
- Research and development activities of RFRI, Jorhat in the field of Bamboo Cultivation, Propagation, Nursery

- Management, Value addition & bamboo preservation techniques, Biotechnology and Tissue Culture, Lac Cultivation, Botanical Garden, Orchidariu, Vermi composting etc., were explained to the students of Jawahar Navodaya Vidyalaya, Jorhat under 'PRAKRITI" programme on 12 February 2019.
- Research and development activities of RFRI, Jorhat in the field of Bamboo Cultivation, Propagation, Nursery Management, Value addition & bamboo preservation techniques, Biotechnology and Tissue Culture, Lac Cultivation, Botanical Garden, Orchidarium, Vermi composting etc. were explained to the students of KV, ONGC, Jorhat under 'PRAKRITI" programme on 26 February 2019.
- IFP, Ranchi organized one day training and demonstration programme on "Nursery Maintenance" at Jawahar Navodaya Vidyalaya, Bonga, Hazaribagh under 'Prakriti programme' on 18 February 2019. 200 teachers and students participated in the programme.

#### Awards

- Ms. Rekha Devrani awarded 'Young Scientist Award' for the paper titled "Enzyme assisted extraction of phenolics antioxidants from biomass residues of poplar and lemongrass" authored by Devrani, Rekha; Singh, Rakesh; Varshney, V.K. and Negi, Vipul presented in 13<sup>th</sup> Uttarakhand State Science & Technology Congress 2018-19 held at Vigyan Dham, UCOST, Jhajra, Dehradun from 26 to 28 February 2019.
- Ms. Rishika Guleria bagged Young Scientist Award for her presentation under 'Oral' category entitled "Pinus roxburghii needles: Contemporary source of antiviral precursor shikimic acid" authored by Vineet Kumar, Rishika Guleria and Pradeep Sharma during the 13<sup>th</sup> Uttarakhand State

- Science & Technology Congress 2018-19 (USSTC) held on 26-28 February 2019, at Vigyan Dham, UCOST, Dehradun.
- Dy. Chief Minister of Karnataka G. Parameshwara awarded the 'Outreach Award' for generating awareness about Sandalwood in rural community of Karnataka and other parts to Dr. Pankaj K. Aggarwal, Scientist-G and Head, WP Division in the National Conference on Sandalwood organized by Sandal Society of Karnataka at J.N. Tata Auditorium, Bengaluru on 25th February 2019.
- Dr. Shiny. K.S, Postdoctoral Fellow was selected for Augmenting Writing Skills for Articulating Research Award 2018 (AWSAR) on "Coconut shell oil to protect wood" under Postdoctoral Fellow (PDF) Category. The award carries a cash prize of Rs. 10,000/- and Certificate of Appreciation.

## Awareness and Demonstration Programmes

- HFRI, Shimla organized awareness programme to reduce incidences of fire in chirpine forests under the ICFRE funded project titled "Analyzing impact of control burning on plant diversity and soil properties in chir pine forests" on 28 February 2019. The programme was attended by 28 local villagers and representative of Panchayat of Kasauli Gadkhal, Teh. Kasauli, Distt. Solan.
- IFP, Ranchi organized training and demonstration programme on the "NTFPs cultivation technique" to the Gram Van Samiti of Hazaribagh district and medicinal plants and "Forestry Research Activities" to the student of Biotechnology Department, Ranchi Women's College, Ranchi on 13 February 2019.

## Popularizing Forestry through All India Radio / Doordarshan

Programme Topic	Channel	Date
Forest Rese	earch Institute, Deh	radun
Role of Jigat in Agarbatti making-Contributions of FRI	All India Radio	27 Feb. 2019
Institute of	Forest Productivity,	Ranchi
Role for Forestry research and constraints	Doordarshan, Ranchi	16 Feb. 2019

### Miscellaneous

Institute	Special day/theme	Date
IFB, Hyderabad	World Wetland Day	2 February 2019
RFRI, Jorhat	National Science Day 2019	28 February 2019

## Memorandum of Understanding

• HFRI, Shimla signed a Memorandum of Understanding (MoU) on 12 February 2019 with Himachal Pradesh Forest Department for maintenance of Van Vigyan Kendra Jagatsukh, Manali, Distt. Kullu (HP).



#### **Promotions**

Name	Date of appointment	Name	Date of appointment
Shri Prem Lal, Under Secretary, ICFRE	21 Feb 2019	Smt. Rekha Rani, Under Secretary, FRI	21 Feb 2019
Shri Sardar Singh Chauhan, Under Secretary	, ICFRE 21 Feb 2019	Smt. Suman Kaushal, Under Secretary, HFRI	21 Feb 2019
(on ad-hoc basis)		Shri Rakesh Kumar Bhandari, Under Secretary, F	RI 21 Feb 2019
Shri Jaqdish Saran Saxena, Under Secretary,	FRI 21 Feb 2019	Shri Hemant Gagal, Under Secretary, AFRI	21 Feb 2019



#### Patron:

Dr. Suresh Gairola, Director General, ICFRE, Dehradun

#### **Editorial Board:**

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