

# Vol. 18 No. 6 June 2018

## ICFRE NEWSLETTER

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## SIGNIFICANT RESEARCH FINDINGS:

## Forest Research Institute, Dehradun:

- Identification work on the collected species is continued under the project "Taxonomic study of Tettigoniidae (Orthoptera) of India (AICOPTAX, MoEFCC)".
- Plants of Pistacia integerrima collected from field are being maintained, out of 12 plants
  only two have established, under the project" Cecidology and nursery establishment for
  exploring possibility of in situ leaf gall production. (Dabur India Pvt Ltd)".
- Tour was conducted in different districts (Panipat, Palwal, Faridabad and Nuh) of Haryana.
  Forty insect samples were collected for the screening of *Apanteles* spp. Five samples of larvae were collected from forestry area. Slide preparation and species identification of other *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".
- Five insect egg samples were collected from Dehra Dun, Uttarakhand and kept in glass tubes for the emergence of parasitoids under the project "Studies on diversity and host range of hymenopteran egg parasitoids from northern India (Haryana, Uttar Pradesh and Uttarakhand)".
- Biology and rearing of *C. annularis* is continuing. Infested bamboo species were collected from the field, examined and caged in zinc wooden, chimney and outdoor cages. Control experiments for the management of borer has been laid down using systemic and contact insecticides in the Insectary, FRI under the project "Epidemiology and management of *Chlorophorus annularis* Fab. (Coleoptera: Cerambycidae) A major borer of cut and dry bamboo".
- A survey was carried out on 11 transects in Lansdowne Forest Division, Pauri Garhwal district, Uttarakhand for sampling butterflies and vegetation under the forest subtypes: 3C/C2a Moist Shiwalik Sal Forest. & 5B/C2 Northern Dry Mixed Deciduous Forest; 9/C1b Upper Himalayan Chir Pine Forest & 12/C1a Ban oak Forest Besides collection of insect & plant material, forest sub-types maps false colour composite satellite imagery of the above mentioned area was also prepared. Herbariums of identified plant species

- were also prepared. Database on the forest sub-type and butterflies sampled so far was updated under the project "Butterflies associated with different forest types/sub-types in Uttarakhand".
- A survey of oak forest areas in and around Chakrata Forest Division (Dehradun District.) was carried out on Ban, Moru & Kharsu oak forests during May 2018. Insect & infested material was collected on 2 species of wood borer, 4 species of Lepidoptera, 1 species of plant bug. Borer infested Kharsu oak logs collected from the field are being kept in the laboratory for rearing experiments on the life cycle of the borer. Database on insect pests of western Himalayan oaks was updated for 5 species of Coleoptera & 3 species of Lepidoptera under the project "Insect pests of Western Himalayan Oaks and their Control".
- 300 species of Insects were digitized. Database was updated for editing species holding data in the database. Work on eulophid species which made vein galls on the leaves of *Madhuca longifolia* continued under the project "Digitization and enrichment of National Forest Insect Collection (NFIC) of Forest Research Institute, Phase-II (minute insects)".

- Maintenance work of Poplar nursery was done.
   Observation of production loss has been done under the project "Screening of poplar clones for tolerance against poplar leaf defoliator, Clostera cupreata But".
- "Trichoderma virens (GenBank Accession Number: KX014717) was found effective against Shisham wilt pathogen in laboratory and greenhouse experiments".
- Leaf spot disease of *Cassia javanica* was investigated and causal organism i.e. *Alternaria* sp. was identified, apart from this, pathogenicity test have been proved.
- Preparation and design layout at sites Pelio (Saharanpur) and Dhaluwala majbata (Haridwar) done. Maintenance of procured seedlings of *G. arborea* at Central Nursery, FRI, Dehradun under the project "Development of *Gmelina* arborea and *Emblica* officinalis based agroforestry models on degraded lands in Uttarakhand and Uttar Pradesh".
- Site selection and design layout at Dhaluwala majbata (Haridwar) completed. Maintenance of procured Kachnar, Bhimal and Kadam seedlings at Central Nursery, FRI under the project "Development of Kachnar (Bauhinia variegata), Bhimal (Grewia optiva) and Kadam (Anthocephalus cadamba) based agroforestry models on farmers land under rainfed conditions in Uttarakhand".
- Recording on Co<sub>2</sub> emissions and soil samples collection, process and analysis continues under the project "Carbon sequestration and Carbon dioxide emission from the soils under different forest covers in Uttarakhand".
- A tour was conducted to Chakrata, Thano and Lansdowne forest division and 66 soil samples were collected from various sites under the project "Effect of altitude and seasons on soil respiration, bacterial communities and enzyme activities in Uttarakhand".
- 15 Soil samples were analysed for pH and EC.18 soil samples were analysed for bulk density under the project "Post fires impact on soil properties and micro organisms in Chirpine and Oak forests of Uttarakhand".
- 16 soil samples analysed for available nitrogen and phosphorus. 20 soil samples were analysed for water holding capacity (WHC) under the project "Soil nutrient pool and microbial studies under different forest types in Uttarakhand Himalayas for sustainable management".
- Physiological parameters of plant species exposed to various CO<sub>2</sub> concentrations i.e. ambient, 600, 800, 1000 and 1200 ppm in open top chamber conditions were recorded under the project "Study on adaptive response of plants to elevated CO<sub>2</sub> concentrations".

- APR presentation for Kempty watershed project. Tour to Kempty watershed included Soil sample collection from all sampling sites for chemical analysis, viz., OC%, N, P, K, etc., Water sample collection for chemical analysis and suspended sediments. Dissolved oxygen, turbidity, chlorine, pH, EC, TDS etc. will be analysed. Leaf litter fall collection (monthly) for biomass and carbon estimation. Fresh weight and Dry weight (gravimetric method) would be used for biomass estimation of litterfall. Physicochemical analysis of soil samples (10) collected from study site for pH, EC, Available Nitrogen, Available phosphorous, exchangeable potassium, organic carbon, organic matter and texture. Litter fall collected from sampling sites (05) for biomass and carbon estimation. Water samples (15) collected from 05 sampling sites for analysis of suspended sediment concentration in the stream under the project "Assessment of Hydrological Services Imparted by Forests of Kempty Watershed (Mussoorie)".
- Final Report of the project (HPPCL, Renukaji Dam Project) for submission to the funding agency "Socio-economic Base line survey and SIA for Renukaji Dam Project" was prepared.
- The project report is under progress under the project "Preparation of roadmap for Ecological restoration works at NCL (2nd phase)".
- Soil microbial biomass analysis of the restored sites under the project "To act as technical advisor/expert for the ecological restoration works being undertaken by BCCL on OB dumps/mined out areas (44.0 ha)" is under progress.
- Quaternisation of guar gum was done under semidry conditions. The reactions are of industrial importance.
- Three populations of Myrica esculenta grown in the Mussoorie Forest Division were characterized for the first time for total phenolic contents (TPCs) determined in their bark.
- Two wild populations of Valeriana jatamansi collected from Arunachal Pradesh were characterized for the first time for their essential oil composition determined in their rhizomes.
- Evaluation of total phenolic and total flavonoid contents in some of the solvent extracts of *Rhus parviflora* fruits.
- Qualitative phytochemical screening of different fractions of the total extracts of *Ficus palmata* fruits done.

## Arid Forest Research Institute, Jodhpur

 Two species of soil arthropods and two species of Lepidopteran caterpillars recorded on three tree species from nurseries of Jodhpur. Nesting of insectivorous bird *Orthotomus sutorius* (Common Tailorbird) belonging to family Cisticolidae recorded on two tree species.

- Under the project, "Evaluation of Sandal plantation in Gujarat", land was allotted for establishment of Sandal plantation in Anand Agriculture University. Initiated plantation activities at two locations (Anand and Rajkot) in Gujarat.
- Under the project, "Multilocational Clonal trial of Casuarina in Gujarat", initiated plantation activities for establishment of Casuarina trials at three location at Bhavnagar (2 Places) and Rajkot in Gujarat.
- Detailed socio-economic survey was carried out in Jodhpur, Jalore and Pali districts under NMPB, New Delhi sponsored project, "Estimation of agro-economics, gap analysis and market price spread studies of Isabgoal and senna in Jodhpur Division of Rajasthan". Preliminary findings revealed that net profit q ha-1 earned by the

farmers by selling of isabgoal seeds are Rs. 4350/-, 4207/- and 4205/- respectively. Besides, cattle feed worth Rs. 2000/- per hectare was also obtained.

### Himalayan Forest Research Institute, Shimla

• A survey to assess the dependency of the villagers on oak fodder, evaluated in 11 forest divisions of Himachal Pradesh under one of the PLAN project titled "Community Dependency on Oak Fodder and comparative analysis of different oak species of Himachal Himalayas", it was observed that some of the communities are heavily dependent on the oak fodder throughout the year whereas, some communities inhabiting other parts of the state showed such dependency only during the winter months of the year. This clearly reflects that the requirements of communities with respect to fodder requirement are different and may depend upon other related socioeconomic issues.

## **EXHIBITIONS:**

Institute	Participated/Organized	Duration	Place
FRI, Dehradun	World Environment Day Exhibition	2 to 5 June 2018	Van Vigyan Bhawan New Delhi
Tropical Forest Research Institute Jabalpur	Participated in exhibition	24 June 2018	TFRI Khel Parisar
Forest Research Centre for Livelihood Extension , Agartala	Participated in exhibition	1 to 5 June 2018	Van Vigyan Bhawan New Delhi



Dr. Harsh Vardhan, Hon'ble Minister, MoEF&CC, Govt. of India visited ICFRE Stall at Van Vigyan Bhavan, New Delhi



Director General, ICFRE and Director, FRI with scientists in Exhibition at Van Vigyan Bhavan, New Delhi

## VISITS ABROAD:

Name of Personnel	Institute	Purpose of Visit	Duration	Place
Mr. Surendra Kumar, Director,; Dr. B.N. Divakara, Scientist-E & PI, IWST; Dr. V.P. Tewari, Director, HFRI & CO-PI	IWST, Bengaluru & HFRI, Shimla	Spatio-temporal landuse patterns at rural-urban interface and the relationship between green areas and biophysical feature	13 to 17 June 2018 es	Georg-August University, Goettingen, Germany
Dr. R.S.C. Jayaraj Director, RFRI	RFRI, Jorhat	International Trade in Endangered Species of Wild Fauna and Flora (CITES) Tree Species Programme regional meeting for Asia	25 to 29 June 2018	Yogyakarta, Indonesia



CITES Tree Species Programme regional meeting for Asia and Second regional workshop held at Yogyakarta, Indonesia

## **WORKSHOPS, SEMINARS, MEETINGS:**

S.No.	Торіс	Duration	Beneficiaries	
Indian Council of Forestry Research and Education, Dehradun				
1.	Preparation of National REDD+ Action Plan for Uttarakhand	13 June 2018	9 participants	
2.	Review the working of ICFRE	13 June 2018	2 participants	
Forest Research Institute, Dehradun				
3.	Tree Improvement and Forest Biotechnology: Accomplishments and Road Ahead	22 June 2018	-	

## **Institute of Forest Genetics and Tree Breeding, Coimbatore**

4. Forest Ecosystem Services: Classification, Valuation and payment for Ecosystem Services

28 June 2018

41 SFS trainees, CASFOS, Coimbatore



Dr. Mohit Gera, IFS, Director IFGTB interacting with PhD scholars of FC&RI Mettupalayam

Tropical Forest Research Institute, Jabalpur			
5.	वन संपदा से स्वरोजगार की असीम संभावनाँए	26 June 2018	-
Institute of Forest Productivity, Ranchi			
6.	Soil Health Management	13 June 2018	All Scientists and Officers
Forest Research Centre for Livelihood Extension , Agartala			
7.	Community Enterprise Promotion for Solution to Control Plastic Pollution	18 June 2018	-

## **RAJBHASHA NEWS:**

- IFGTB, Coimbatore organized Hindi Workshop on 13 June 2018 to create awareness on effective implementation of Official Language. Shri S. Veeramanikandan, Sr. Hindi Translator from Employees Provident Fund Organization, Coimbatore was called for a guest lecturer and he gave a talk on "Easy methods of using Official Language Hindi in daily official works".
- नगर राजभाषा कार्यान्व्यन समिति, शिमला के तत्वावधान में सदस्य कार्यालयों के कर्मियों के लिए हिमालयन वन अनुंसंधान संस्थान, शिमला द्वारा हिन्दी कार्यशालाका आयोजन दिनांक

12 जून 2018 को किया गया, जिसमें केंन्द्र सरकार कार्यालयों के लगभग 30 के कर्मियों ने भाग लिया। नगर राजभाषा कार्यान्वयन समिति (कार्यालय–2), शिमला की सदस्य सचिव, श्रीमती मृदुला श्रीवास्तव तथा श्री राजेश डोगरा, प्रबंधक (हिंदी), राष्ट्रीय कृषि एवं ग्रमीण विकास बैंक, शिमला मुख्य वक्ता रूप में व्याख्यान दिए।

Members of the Hindi Committee of Institute of Forest Productivity, Ranchi conducted Quarterly Hindi Meeting on 6 June 2018.

## TRAINING PROGRAMMES:

S.No.	Торіс	Duration	Beneficiaries	
	Institute of Forest Genetics and Tree Breeding, Coimbatore			
1.	Training on Biochemistry and Biotechnology	4-8 June 2018	U.G Students from PSG CAS, Coimbatore	
	Institute of Wood Science and Te	chnology, Bengaluru		
2.	Wood Identification and Tree Improvement	12-15 June 2018	B.Sc. Students of College of Forestry, Ponnampet	
3.	Wood Polymer Composites	16 June 2018	54 B.Sc. Students of College of Forestry, Ponnampet	
4.	Sandal cultivation and related aspects	26 June 2018	40 Farmers and other stakeholders of Belaguru village, Karnataka	
	Rain Forest Research Institute, Jorhat			
5.	Forestry	4 to 29 June 2018	13 B.Sc. (Forestry) students of Mewar University, Chittorgarh, Rajasthan	
6.	Bamboo Craft	11 to 25 June 2018	students of Lovely Professional University, Jalandhar (Punjab)	



Short Term training on Forestry to B.Sc. (Forestry) students of Mewar University, Rajasthan at RFRI, Jorhat

## **VISIT OF DIGNITARIES:**

- Shri Anil Kumar Jain, Additional Secretary, MoEF &CC, Govt. of India, New Delhi visited Forest Research Institute, Dehradun on 28 June 2018.
- Shri Parimal Suklabaidya, Hon'ble Minister of Environment & Forest, Government of Assam; Shri Rupjyoti Kurmi, Member of Legislative Assembly, Mariani Legislative Assembly Constituency, Jorhat, Assam and Shri N. K. Vasu, IFS, Principal Chief Conservator of Forests (PCCF) & Head of Forest Force (HoFF), Assam visited RFRI on 6 June 2018.



Shri Parimal Suklabaidya, Hon'ble Minister of Environment & Forest, Government of Assam visited RFRI, Jorhat

## **MISCELLANEOUS:**

Institute	Special Day/ Theme	Duration
FRI, Dehradun; IFGTB, Coimbatore; IWST, Bengaluru; TFRI, Jabalpur; AFRI, Jodhpur; RFRI, Jorhat;	World Environment Day	5 June 2018
HFRI, Shimla; IFP, Ranchi; IFB, Hyderabad	International Day of Yoga	21 June 2018







Occasion of International Yoga Day, Shri Narendra Modi, Hon'ble Prime Minister of India Visited FRI, Dehradun

## PATENTS:

 One provisional patent has been filed on "Simple and rapid method for discrimination of pure Sandalwood and other essential oils developed" on 11 June 2018 by IWST, Bengaluru.

### **EXPOSURE VISIT:**

 RFRI, Jorhat organized an exposure visit on Bamboo Cultivation, Propagation, Nursery Management, Value addition & bamboo preservation techniques to Shri Prabin Kurmi & Shri Aditya Beria of Jorhat and three students of Navodaya Vidyalaya, Titabar, Jorhat on 18 June 2018.

- As a part of exposure visit, 25 officers trainees from various Departments of State of Government of Orissa undergoing a training programme on "Agro-climatic based Innovations for Sustainable Rural Development" at National Institute of Rural Development & Panchayti Raj, Hyderabad along with their Training Coordinators visited the HFRI, Shimla on 29 June 2018.
- As a part of exposure visit, 27 Forest Range Officer trainees of Forest Training Academy, Haldwani, Uttarakhand along with faculty members visited Himalayan Forest Research Institute (HFRI), Shimla on 19 June 2018. The trainees were also taken to the laboratories for apprising them about the research activities.

## **HR NEWS:**

#### Retirement

Name of Officer Date of Retirement

Shri V.R.S. Rawat, Sci- F, B.C.C. Division, ICFRE 30.06.2018
Shri P. Manivachakam, Sr. Technical Officer, 30.06.2018
IFGTB, Coimbatore

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Dr. Suresh Gairola, Director General

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#### Indian Council of Forestry Research and Education

(An Autonomous Body of Ministry of Environment, Forest & Climate Change, Govt. of India) P.O. New Forest, Dehradun  $-248\,006$ 

### "ICFRE Awards for Excellence in Forestry - 2018"

"ICFRE Awards for Excellence in Forestry - 2018" are given for original and outstanding work/research contribution. The categories are (a) ICFRE Personnel (Five Awards) (b) Non-ICFRE Individuals, Institutions and Organizations (Six Awards) (c) ICFRE Lifetime Achievement Award in Forestry (One Award).

Detailed advertisement with guidelines and Proforma is available at ICFRE website <a href="https://www.icfre.org">www.icfre.org</a> and at the office of ADG (Education & R.B.).

## Complete application should be sent to: ADG (Education & RB)

Indian Council of Forestry Research and Education P.O. New Forest, Dehradun – 248006 Tel: 0135-222-4850, 0135- 2758348, Fax: 0135-2758571 E.mail: adg\_edu@icfre.org, rb.icfre@gmail.com

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