

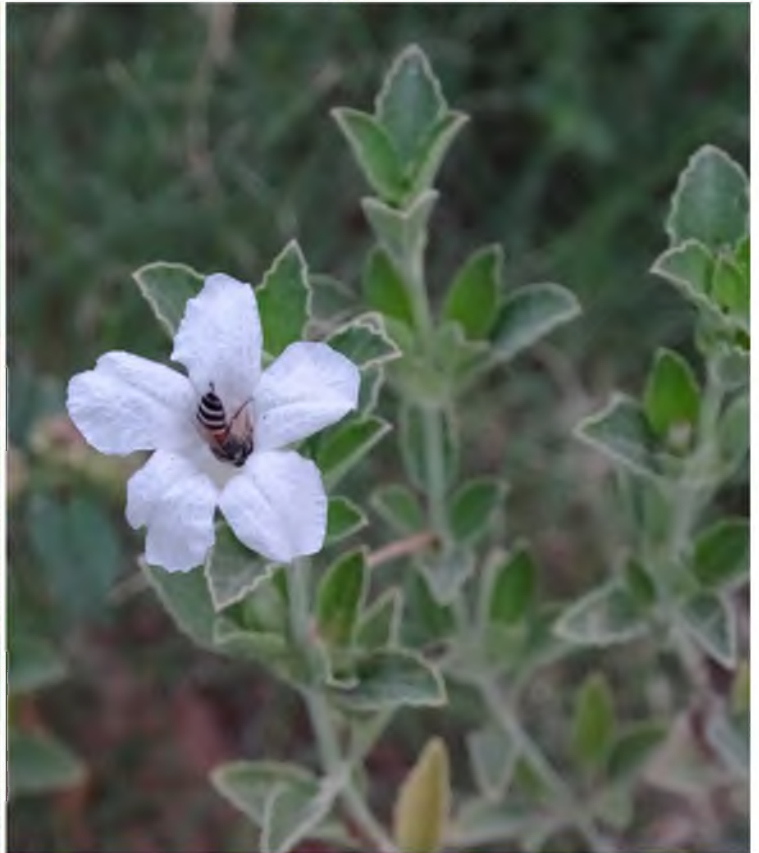
# BSI NEWSLETTER

The monthly electronic newsletter of Botanical Survey of India

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**Botanical Survey of India**  
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Kolkata – 700 064



## HEAD QUARTERS, KOLKATA

In connection with the on-going projects on “Studies on Wild Mushrooms of Sikkim”, “Wood rotting fungi of Rajmahal hills”, “Studies on the Macrofungi of AJCBIBG”, “Hot spring Algae of Rajgir and Mungar, Bihar”, “Revision of the family Metzgeriaceae in India”, “Liverworts and Hornworts Flora of Darjeeling District, West Bengal” identification, drawings, camera lucida illustrations were done by the scientific officials of Cryptogamic section. Dr. Manoj Emanuel Hembrom, Botanist prepared an ArcGIS map for *Athelopsis subinconspicua* (Litsch.) Jülich (Atheliaceae).

Final report of “Macrofungi of Acharya Jagadish Chandra Bose Indian Botanic Garden: A Pictorial Guide” with 132 species was submitted to the Hqrs., BSI, Kolkata by Dr. Kanad Das, Scientist ‘D’ Manoj Emanuel Hembrom, Botanist and Arvind Parihar, Bot. Asst.

Sri M.E. Hembrom was awarded Ph.D. in Botany from the department of Botany, University of Kalyani, West Bengal for the thesis, “Taxonomic study on the corticoid fungi of Rajmahal hills”.

Dr. A.B.D. Selvam, Scientist ‘D’ pharmacognostically studied and authenticated a plant sample as seeds of *Trigonella foenum-graecum* L. (Leguminosae/Fabaceae), which was received from M/s Imami Ltd., Kolkata.

### Meeting attended /lecture delivered

Scientists working at Howrah/Kolkata units attended a meeting with Dr. Harsh Vardhan, Hon’ble Minister of Environment, Forest & Climate Change, Government of India at Central National Herbarium, Botanical Survey of India, Howrah on 09.05.2018 as well as International Day for Biological Diversity at Central National Herbarium, Botanical Survey of India, Howrah on 22.05.2018.

Dr. Kanad Das provided one day in service training as a resource person on “DNA barcoding and Basics in Phylogenetic Analyses” organized jointly by Botanical survey of India and Zoological survey of India on 17.05.2018 at Central National Herbarium, Botanical Survey of India. The training was attended by the Scientists and Scientific officials of BSI working at Howrah/Kolkata units.

Dr. M.E. Hembrom delivered a lecture, “Diversity of wood rotting fungi” on in the occasion of International Day of Biodiversity organised at Central National Herbarium, BSI, Howrah on 22.05.2018.

### Publications

Zamora, J.C., Svensson, M., Dam, N., Dämmrich, F., Das, K., Davies, L, De Crop, E., Zhurbenko, M.P. and Ekman, S. 2018. Considerations and consequences of allowing DNA sequence data as types of fungal taxa. *IMA Fungus* 9(1): 167–175.

Buyck B., Antonin, V., Chakraborty D., Baghela A., Das K., Hofstetter, V. 2018. *Cantharellus* sect. *Amethystini* in Asia. *Mycological Progress*. DOI: 10.1007/s11557-018-1403-8

Gupta, R.K. and Das, S.K. 2018. Diversity of Euglenophyceae in India. In: G.K Mishra, J. Mohan and N. Mohan (eds.), *Recent Status of Cryptogames in India*, pp. 1–23. Rachanakar Publishing House, Delhi.



## CENTRAL NATIONAL HERBARIUM, HOWRAH

Dr. V.P. Prasad, Scientist 'D' corrected the identity of two Cyperaceae specimens.

Dr. Vinay Ranjan, Scientist 'D' and Sri Anant Kumar, Bot. Asst. identified specimens of 10 field numbers and eight species collected from Neora Valley National Park, Darjeeling district, West Bengal.

Dr. O.N. Maurya, Scientist 'C' identified specimens of five field numbers collected from Udaipur Wildlife Sanctuary, West Champaran, Bihar.

Dr. K. Karthigeyan, Scientist 'D', Central National Herbarium, Identified 18 herbarium specimens belonging to the genus *Carallia* (Rhizophoraceae) and nine sheets of *Salacia reticulata* (Celastraceae) 01 sheet of *Appendicula pendula* (Orchidaceae) and one sheet of *Kaempferia galanga* (Zingiberaceae).

Sri P.P. Ghoshal, Botanist identified specimens of 15 field numbers collected from of Betla National park, Latehar, Jharkhand.

### Public Service rendered

Dr. P.V. Prasanna, Scientist 'F' & HoO, CNH, BSI, Howrah reviewed a manuscript for the journal *Nelumbo*.

Dr. V.P. Prasad reviewed one manuscript for the journal *Rheedea*.

Dr. G. Krishna, Bot. Asst. identified/authenticated plant samples (Tech-II) sent or brought from different institutes/organizations viz., Central Instrumentation Facility Division, CSIR-Indian Institute of Chemical Biology, West Bengal; Guru Nanak Institute of Pharmaceutical, Science & Technology, Kolkata; Department of Pharmaceutical Technology, Jadavpur University, Kolkata; NSHM Knowledge Campus, Kolkata.

Dr. Subir Bandyopadhyay, Scientist 'B' reviewed three manuscripts one each for the the journal *Rheedea*, *Journal of Economic and Taxonomic Botany* and *Haseltonia*. Dr. Bandyopadhyay provided six pages from *Flora of China*, Volumes 8, 9 and 19 to Dr. Mohan Gangopadhyay, Retired Scientist, BSI; 13 pages from *Taxon* 65(4): 2016 and 66(1): 2017 to Dr. A.A. Ansari, Retired Scientist, BSI; four pages from *A revised handbook to the flora of Ceylon*, Vol. 6 to Dr. Milind M. Sardesai, Department of Botany, Savitribai Phule Pune University, Pune; 10 pages from *Notes Roy. Bot. Gard. Edinburgh* 41: 1984 to Zoreh Pourghorban, University of Iran, Tehran; two pages on *Rosa osmastonii* Rawat & Pangtey [Ind. For. 113: 823–824. 1987] and four pages of the protologue of *Rosa sericea* Lindl. var. *glandulosa* Osmaston from Forest flora for Kumaon by A.E. Osmaston (1927) and nine pages from *J. Econ. Taxon. Bot.* 16(2): 1992.

### Meetings attended/workshop/training organised

Dr. V. Sampath Kumar, Scientist 'D' attended three video conference (VC), conducted by the EI division of the MoEF & CC, New Delhi on 04.05.2018, 25.05.2018 and 31.05.2018 in connection with the GSDP.

DNA bar coding and Molecular phylogeny techniques workshop organized by Central National Herbarium on 17.05.2018 in which scientific officials of BSI of Howrah/Kolkata attended.

### International Day for Biological diversity—2018

International Day for Biological diversity observed and organized by Central National Herbarium on 22.05.2018 in which various lectures related to biodiversity was delivered by BSI scientists.

### Visitors/students

Dr. Harsh Vardhan, Minister, MoEF & CC Visited Central National Herbarium on 09.05.2018.

Ms. K. Nidhina and Sri C.A. Abhil from NBRI, Lucknow for consulting Monocot herbarium on 02.05.2018 and 03.05.2018.

20 students from Barasat Govt. College on 04.05.2018.

Ms. Shailja Tripathi, Sri Pushpendra Katiyar and Sri Danish Husain from NBRI, Lucknow for consulting Monocot herbarium and Type Herbarium II from 7th to 18th May 2018.

Mr. Santosh Kr. Sakhinala, Art Historian and Critic from Hyderabad consulted Roxburgh's *Icones* on 30.05.2018 and 31.05.2018.

– Dr. P.V. Prasanna  
Scientist 'F' & HoO

## Glimpses of International Day for Biological Diversity celebration at Central National Herbarium, BSI, Howrah





## ANDAMAN & NICOBAR REGIONAL CENTRE, PORT BLAIR

**Herbarium sheets Scanned:** 158 numbers of Araceae, Centrolaceae, Cymodoceaceae, Cyperaceae, Eriocaulaceae and Najadaceae..

**Herbarium details computerized in EXCEL format:** 50 herbarium specimens of families Areceae were fed in the computer in a prescribed format.

### Meeting/workshop attended

Dr. T.A.M. Jagadeesh Ram, Scientist 'D' attended Ph.D. Public Viva-Voce Examination of Ms. Jhimli Mondal, Ph.D. Scholar, ZSI on the thesis entitled, "Studies on Reef Associated Ascidiars of Andaman and Nicobar Islands, India" at Zoological Survey of India Auditorium on 05.05.2018.

Dr. Lal Ji Singh, Scientist 'D' & HoO attended one day workshop on "Sustainable Solid and Liquid Waste Management organized by the Department of Science and Technology & Pollution Control Committee, Andaman and Nicobar Administration at Port Blair on 25.05.2018.

### International Day for Biological Diversity 2018

The Regional Centre celebrated International Day for Biological Diversity on 22.05.2018 at Dhanikhari Experimental Garden-cum-Arboretum (DEGCA), Nayashahar. The theme of the day was "Celebrating 25 Years of Action for Biodiversity".



Photo: C.P. Vivek

**Drawing competition organised during the celebration of International Day for Biological Diversity (IBD)**



**Medal & certificate distribution by Sri D.M. Shukla during the celebration of IBD on 22.05.2018**

The chief guest of the function, Sri D.M. Shukla, PCCF Wild Life, Chief Wild Life Warden, Environment and Forests & Secretary Environment, Science and Technology, Andaman and Nicobar Administration addressed the gathering and encouraged the children to protect the biodiversity of these islands. On this occasion a threatened and endemic plant: *Pinanga andamanensis* Becc. was planted by the Chief Guest at BSI Garden (DEGCA), Nayasahar.

Dr. Lal Ji Singh delivered a welcome address and briefed about the objectives and activities of BSI in conservation of biodiversity.

A drawing competition for school students was organized. More than 90 students from various schools of Port Blair participated in the competition.

### Visitors/students

Mr. Akashy Surendra, Research Scholar, National Centre for Biological Sciences, Bangalore visited garden on 16.05.2018.

Dr. S. Jayakumar, Department of Botany, N. M. Christian College, Marthandam, Tamil Nadu along with 30 faculty members visited herbarium and library on 29.05.2018.



Photo: C.P. Vivek

**Dr. S. Jayakumar, Department of Botany, N.M. Christian College, Tamil Nadu at ANRC, BSI herbarium**

– Dr. Lal Ji Singh  
Scientist 'D' & HoO

## ARID ZONE REGIONAL CENTRE, JODHPUR



Photo: Ravi Prasad

*Albizia amara* in flowering at AZRC,BSI, Jodhpur

During this period specimens of 82 Field numbers has been identified.

### Meeting/programme attended/lecture delivered

Sri Vinod Maina, Scientist 'D' & HoO attended head of office meeting at Central National Herbarium, Howrah on 03.05.2018 and 04.05.2018.

Sri Vinod Maina, Dr. S.L. Meena, Scientist 'D' and Dr. M.K. Singhadiya, Botanist attended International Day for Biological Diversity programme, organised by Biodiversity management committee, Khejarli, District Jodhpur on 22.05.2018 and Sri Vinod Maina delivered a talk on 'Conservation of Local Biodiversity'.

– Sri Vinod Maina  
Scientist 'D' & HoO



*Ruellia patula* in flowering at AZRC,BSI, Jodhpur

## CENTRAL REGIONAL CENTRE, ALLAHABAD

Taxonomic data collection regarding the distribution, occurrence, phenology, habit and habitat and taxonomic description of *Ludwigia* spp. was completed under the project Studies of fossil and living plants with reference to the impact of climate change on flora of Gangetic Plains and Central India.



Photo: Dr. Sheo Kumar

*Kaempferia galanga* in flowering at associated garden of CRC, BSI, Allahabad



*Polyalthia suberosa* in fruiting at associated garden of CRC, BSI, Allahabad

Phenological stages (criteria-wise) of 149 plant species were recorded during May, 2018 among 124, 75 and 57 species formed flowers, fruits and seeds respectively of the associated Botanical garden of CRC, BSI, Allahabad.



### Herbarium specimen identification

A total of 49 specimens were identified in connection with the project 'Identification of old unidentified specimens of BSA'.

Twelve lichen loan specimens of LWG were authenticated by Dr. Pushpi Singh.

### Meeting attended

Dr. Arti Garg, Scientist 'D' attended the Thesis Pre-submission presentation of Sri Rajeev Kumar Singh, Botanist, SRC, BSI on 24.05.2018 on 'Floristic Diversity of Valmiki Tiger Reserve, West Champaran District, Bihar', at Nehru Gram Bharti University, Allahabad.

### International Day for Biological Diversity 2018

International Day for Biological Diversity was celebrated on 22.05.2018. Dr. G.P. Sinha, Scientist 'E' & HoO delivered welcome address, Dr. Sheo Kumar, Scientist 'E' delivered Introductory lecture on 'International Day for Biological Diversity since inception to date'. Drs. A. Garg, A.K. Verma, N. Srivastava, Pushpi Singh and Mrs. Ichchha Tiwari Chaturvedi judged the drawings of sit and draw competition attended by about 60 participants of different schools and colleges.



Photo: V.K. Singh

Participants of International Day for Biological Diversity celebration at CRC, BSI, Allahabad

Participants with their drawings at International Day for Biodiversity Day celebration at CRC, BSI, Allahabad

### Public services rendered

Dr. Sheo Kumar supervised two M.Sc. dissertations - 1. Diversity of Stomata in Family Rubiaceae and 2. Diversity of Trichomes in Family Euphorbiaceae of Botany students.

Dr. Nitisha Srivastava reviewed two manuscripts.

### Publication

Garg, A. and Tiwari, A.P. 2018. Three new records of Angiosperms for Madhya Pradesh *Indian J. Forest.* 41(1): 13–15.

– Dr. G.P. Sinha  
Scientist 'E' & HoO

## DECCAN REGIONAL CENTRE, HYDERABAD

Dr. L. Rasingam Scientist 'D' & HoO and Sri S. Nagaraju, Bot. Asst. along with the Project Fellows and Project Assistants carried out one field tour in connection with the project, 'Non Detrimental Findings (NDF) studies on Red Sanders (*Pterocarpus santalinus* L. f)' to Tirupati WLM Forest Division from 2nd to 11th May 2018 for the assessment of Red sanders.

### Identification of herbarium specimens

Dr. G. Swarnalatha, studied and identified nine macro lichen specimens .

### Digitisation of Herbarium specimens

200 herbarium sheets were scanned belonging to various families at BSID.

### Public service rendered

Dr. J. Swamy, Bot. Asst. identified one specimen for Andhra University, Visakhapatnam, Andhra Pradesh.  
Dr. K. Chandramohan, SPF identified six specimens collected from Amrabad Tiger Reserve, Telangana.

### Meeting/programme attended

Dr. L. Rasingam attended the Heads of Offices Meeting at Central National Herbarium (CNH), Howrah on 03.05.2018 and 04.05.2018.



BSI exhibition stall at International Day for Biological Diversity celebration at Hyderabad on 22.05.2018

Sri Jogu Ramanna, Hon'ble Minister, Ministry of Environment, Forest and Science & Technology at Stall

Scientists and staff of Deccan Regional Centre were participated in the International Day for Biological Diversity (IBD) celebrations at the auditorium of Professor Jaya Shankar Telangana State Agricultural University, Hyderabad on 22.05.2018 and also displayed the BSI publications, Posters etc. in the exhibition stall.

Dr. L. Rasingam and Dr. Sankara Rao Mudadla, pursued the land allotment related matters with PCCF, AP Forest Dept. Guntur. Principal Secretary, Ministry of EFS&T, Govt. Andhra Pradesh at Secretariat and Chief Commissioner Andhra Pradesh Capital Region Development Authority (APCRDA) at Vijayawada on 22.05.2018 and 23.05.2018.

### Publication

Swamy, J., Rasingam, L. and Annamma, P.S. 2018. *Cyathocline purpurea* (Buch.-Ham. ex D.Don) Kuntze var. *alba* Santapau (Asteraceae): An addition to the flora of South India. *Indian J. Forestry* 41(1): 49–51.

– Dr. L. Rasingam  
Scientist 'D' & HoO

## EASTERN REGIONAL CENTRE, SHILLONG

During this period two field tours were conducted 1. by Dr. N. Odyuo, Scientist 'D', combined tour to Nagaland for Floras of Eastern Nagaland and for Flora of from 19th May to 8th June 2018; 2. Dr. Ashish Venkatesh Prabhugaonkar, Scientist 'B' visited Ukhrul, Bishnupur and Tengnoupaul districts of Manipur for collection of aquatic fungi from 27th to 30th May 2018.

For taxonomic Revision of genus *Riccia* (Marchantiophyta) in India, Dr. S.K. Singh, Scientist 'D' identified 16 samples of *Riccia* belonging to 4 species from Southern India. Studied holotype of *Riccia abuensis* and *Riccia jodhpurensis* received from Sweden.

During this period identified 15 species and described 25 species for Flora of West and South-West Khasi hills district, Meghalaya with reference to the sacred groves by Dr. Chaya Deori, Scientist 'D' and Dr. S.R. Talukdar, Bot. Asst., Flora of Eastern Nagaland by Dr. N. Odyuo and Dr. R. Daimary and Flora of Nagaland (Vol. I & 2) by Dr. A.A. Mao, Dr. N. Odyuo and Dr. D.K. Roy.



For Micropropagation, Phytochemical Screening of Medicinal Plants and Molecular Characterization of Selected Species of NE India by Dr. Deepu Vijayan, Scientist 'C' qualitative phytochemical analysis of *Pyrenaria khasiana* var. *lakhimpurensis* has been completed. Dried samples of *Zingiber bipinianum*, *Zingiber ngleipakense* and *Zingiber rubens* have been collected for qualitative and quantitative phytochemical analysis.

Fungi Isolated from aquatic habitat for 15 species viz., *Beauveria* sp., *Beltrania* sp., *Cancellidium applanatum* Tubaki, *Candelabrum* sp., *Clonostachys* sp., *Cylindrocladium* sp., *Exserticlava vasiformis* (Matsush.) S. Hughes, *Helicomycetes* sp., *Idriella* sp., *Lauriomyces* sp., *Minimidochium* sp., *Pestalotiopsis*

sp., *Selenospora acicularis* B. Sutton & Hodges, *Subulispora* sp., *Spinulospora* sp., *Thozetella* sp., *Tricladium splendens* Ingold. by Dr. Ashish V. Prabhugaonkar, Scientist 'B'.

Observed and recorded phenological data of flowering and fruiting of 97 plant species viz., *Acanthephippium striatum*, *Aerides multiflora*, *Aesculus assamica*, *Allamanda cathartica*, *Alpinia malaccensis*, *Amomum pterocarpum*, *Artocarpus heterophyllus*, *Artocarpus lakoocha*, *Arundina graminifolia*, *Baccaurea ramiflora*, *Bougainvillea glabra*, *Bulbophyllum scabratum*, *Bulbophyllum umbellatum*, *Callistemon citrinus*, *Caryota urens*, *Citrus medica*, *Clerodendrum chinense*, *Coelogyne flaccida*, *Coelogyne micrantha*, *Coelogyne prolifera*, *Coelogyne punctulata*, *Coelogyne schultesii*, *Coelogyne stricta*, *Coelogyne suaveolens*, *Coelogyne viscosa*, *Curcuma angustifolia*, *Curcuma caesia*, *Cymbidium aloifolium*, *Cymbidium devonianum*, *Cymbidium lancifolium*, *Dendrobium aphyllum*, *Dendrobium densiflorum*, *Dendrobium devonianum*, *Dendrobium falconeri*, *Dendrobium fimbriatum*, *Dendrobium hookerianum*, *Dendrobium jenkinsii*, *Dendrobium lindleyi*, *Dendrobium lituiflorum*, *Dendrobium nobile*, *Dendrobium ochreatum*, *Dendrobium palpebrae*, *Dendrobium ruckeri*, *Dendrobium transparens*, *Dendrobium wardianum*, *Dillenia indica*, *Dracaena angustifolia*, *Elaeocarpus floribundus*, *Epiphyllum oxypetalum*, *Epipogium roseum*, *Eria amica*, *Eria ferruginea*, *Eria muscicola*, *Eria paniculata*, *Eria tomentosa*, *Erythrina stricta*, *Esmeralda cathcartii*, *Eurya accuminata*, *Exbucklandia populnea*, *Gastrochilus calceolaris*, *Gastrochilus distichus*, *Gloriosia superba*, *Gmelina arborea*, *Gnetum gnemon*, *Goodyera procera*, *Hibiscus rosa-sinensis*, *Iris laevigata*, *Itea macrophylla*, *Jacaranda mimosifolia*, *Kaempferia rotunda*, *Mahonia pycnophylla*, *Melastoma malabathricum*, *Mesua ferrea*, *Micromelum integerrimum*, *Micropera rostrata*, *Mucuna macrocarpa*, *Ocotea lancifolia*, *Otochilus fuscus*, *Panisea uniflora*, *Papilionanthe teres*, *Panisea uniflora*, *Phaius tankarvilleae*, *Phalaenopsis mannii*, *Pholidota convallariae*, *Pholidota imbricata*, *Prunus cerasoides*, *Rauvolfia serpentina*, *Renanthera imschootiana*, *Rhynchostylis retusa*, *Schima wallichii*, *Schefflera wallichiana*, *Schoenorchis gemmata*, *Smitinandia micrantha*, *Stahlianthus involucreatus*, *Syzygium jambos*, *Tabernaemontana divaricata* and *Thunia alba*, which are available in the garden which are available at Experimental Botanic Garden, Barapani by Dr. M. Murugesan, Scientist 'B' and Sri L.R. Meitei, Bot. Asst.



Photo: ERC

***Diplazium nagalandicum* Fraser-Jenk., Odyuo & D.K. Roy**

### Public service rendered

Identified about 14 samples of specimens received from various institutions.

### International Day for Biological Diversity – 2018

International Day for Biological Diversity" was celebrated on 22.05.2018 and during which two lectures were delivered viz., Dr. Ashish V. Prabhugaonkar delivered lecture on "fungal Biodiversity and future prospects" and Dr. Dilip Kr. Roy delivered lecture on "Training & Digitization Of Indian Plant Specimens Housed At Natural History Museum (NHM), London, UK" (18th November 2017 - 15th March 2018).

### Visitors/students

One professor, three research scholars, 11 students and 10 other visitors from various Institutions, Colleges and Universities visited the Centre.

– Dr. A.A. Mao  
Scientist 'F' & HoO

## NORTHERN REGIONAL CENTRE, DEHRADUN

Identified total 45 species and made description for 30 species of Angiosperm in connection with the projects, Flora of Himachal Pradesh Vol. I, Flora of Sechu-Tuan Nala Wildlife Sanctuary, Chamba District, Himachal Pradesh, Flora of Binsar Wildlife Sanctuary, Floristic Diversity of Sukhna Lake Wildlife Sanctuary, Trees of Dehradun city, Revision of Genus *Adiantum* L. in India .

### Digitization of Herbarium specimens

Scanned and digitized 112 specimens of the family Rubiaceae and of some Pteridophytes.

### Public services rendered

Identified 14 species for visitors from different institutes/Universities.



Photo: Dr. Puneet Kumar

Officials of NRC, BSI interacting with officials and trainees of FSI Dehradun during the course of training



Dr. Kumar Ambrish delivering a talk during Biodiversity day celebration at NRC, BSI, Dehradun

### Training organised

Dr. Kumar Ambrish, Scientist 'D' & HoO organized Training Program on "Field Botany and Preservation" for 30 FSI Technical Associates from 1st to 7th May 2018.

### International Day for Biological Diversity – 2018

International Day for Biological Diversity" was celebrated on 22.05.2018. On this day sit and draw competition was organized for school students.



Photo: NRC

Sit and draw competition during Biodiversity Day

– Dr. Kumar Ambrish  
Scientist 'D' & HoO

## SOUTHERN REGIONAL CENTRE, COIMBATORE

Sri M. Sulaiman, JPF, Flora India Project accompanied in a field tour with Sri Anant Kumar, Bot. Asst., CNH, Howrah to ATR and MTR, Tamil Nadu from 2nd to 9th May 2018 for the survey of *Dalbergia latifolia* and *D. sissoo* of NDF project.

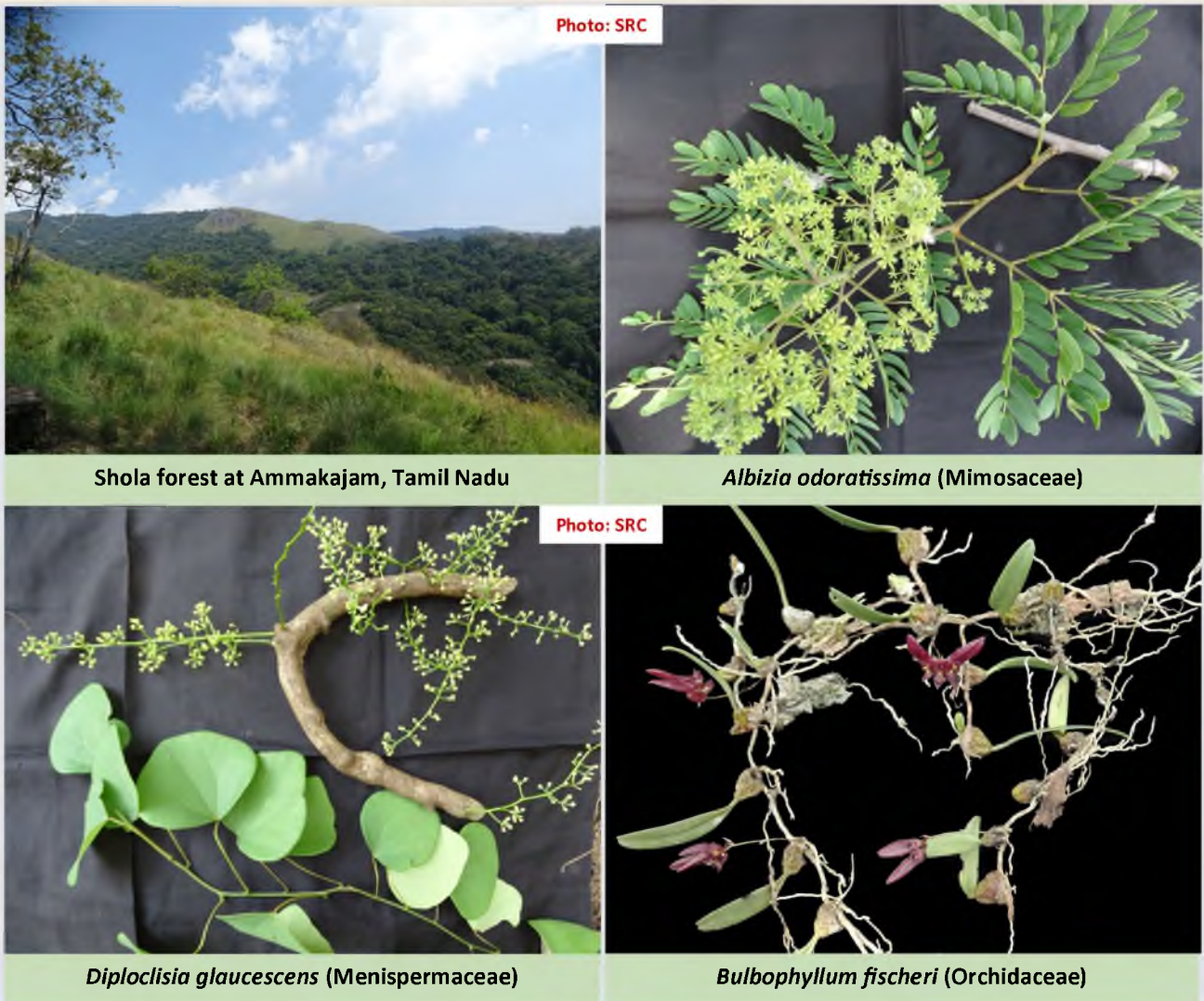
### Identification of herbarium specimens

Dr. K.A.A. Kabeer, Scientist 'D' and Mr. A. Ravi Kiran, Bot. Asst. completed identification for specimens of 65 field numbers from Kodaikanal WLS, Tamil Nadu.

Dr. J.H. Franklin Benjamin, Scientist 'C' and Mr. Rakesh G. Vadhyar, Bot. Asst. completed identification for specimens of 23 field numbers from Kanniyakumari WLS, Tamil Nadu.

Dr. R. Manikandan, Scientist 'D' and Mrs. R. Mehala Devi, Sr. Pres. Asst. completed identification for specimens of 34 field numbers pertaining to North Cauvery North WLS, Tamil Nadu.





Shola forest at Ammakajam, Tamil Nadu

*Albizia odoratissima* (Mimosaceae)*Diploclisia glaucescens* (Menispermaceae)*Bulbophyllum fischeri* (Orchidaceae)

Under fragile ecosystem, Dr. M. Palanisamy, Scientist 'D' and Dr. S.K. Yadav, Bot. Asst. completed identification for specimens of 22 field numbers of seaweed specimens from Goa coast and collected 8 references pertaining to the study area.

In connection with documentation of Phytodiversity, Dr. C. Murugan and Dr. S. Arumugam, completed identification for specimens of 10 field numbers for Cyperaceae of Tamil Nadu.

#### **Ex-situ conservation**

Dr. S. Kaliamoorthy and Dr. M.Y. Kamble, Scientist 'D' and his team multiplied 92 samples belonging to 15 taxa, developed 34 cuttings of 4 taxa and recorded the phenological data of 31 plants, including 20 orchids and 11 other angiosperms at the National Orchidarium and Experimental Gardens (NOEG), Yercaud.

#### **Scanning Electron Microscopy (SEM)**

Ms. R. Mehala Devi and Ms. M. Ananthalakshmi, Sr. Pres. Asstt., based on SEM study, completed description for 5 species under the tribe Cyperae and Fimbristyledeae from South India. Dr. S. Kaliamoorthy and Dr. T.S. Saravanan collected pollinia of 10 species of orchids for SEM study.

#### **Public service rendered**

Identified 32 plant species for the students / research scholars of various institutions. Three digital images of herbarium specimens were provided to Sreehari S. Nair, Sacred Heart College, Thevara, Ernakulam, Kerala. Provided internship training to Mr. Joseph Harris, MCC, Chennai on The family Annonaceae of Tamil Nadu and 5 students from Kongunadu Govt. Arts College, Cbe for their internship on Database of Students Herbarium of MH.



Dr. Palanisamy visited Sadivayal, Singampathy and Sarkarpoorathy villages of Siruvani hills on 17.05.2018 and collected the data on collection of raw materials, procedure for making of wooden products such as Cottage, Cots, Chairs, Teapoy, sofa and so and marketing from the weed plant called *Lantana camara* L. - Verbenaceae for the sustainable future development organised by Amirita Viswa Vidhyapeetham, Ettimadai, Tamil Nadu.

### Meetings/conference/programme/training attended

Dr. C. Murugan attended Head's of office meeting at the Central National Herbarium, Botanical Survey of India, Kolkata on 03.05.2018 and 04.05.2018 .

Dr. M. Palanisamy attended a National Conference on "Towards Resilient of Ecosystem: The role of forestry research" held at IFGTB, Coimbatore on 08.05.2018.

National Orchidarium and Experimental Gardens (NO&EG), BSI, Yercaud participated in the 43rd flower show organized by the State Horticultural Department, Government of Tamil Nadu from 12th to 16th May 2018. During this flower show, 115 potted plants were grouped under Medicinal plants, *Peperomia*, *Begonia*, Orchids, Rare & Endangered plants and Cacti & Succulents were displayed with proper labels. Chief Minister of Tamil Nadu, Ministers, Yercaud MLA, District Collector and public visited the BSI stall and appreciated the exhibition. Also received the shield and certificate from District Collector on 16.05.2018.

Ms. R. Mehala Devi and Ms. M. Ananthalakshmi undergoing Hindi Typing training at Central Hindi Training Sub Institute and Hindi Teaching Scheme, Computer training Centre, Central Excise and Customs Office, Coimbatore.



Inauguration of International Day for Biological Diversity programme at SRC, BSI, Coimbatore



Plantation during International Day for Biological Diversity programme at SRC, BSI, Coimbatore

### International Day for Biological Diversity 2018

This centre observed the International Day for Biological Diversity on 22.05.2018 with the theme "Safeguarding life on Earth". On this occasion, various awareness programs and plantations were done. Several dignitaries, experts, teachers and students from various Educational Institutions attended actively.

### Visitors/students

During this month, 26 scientific personnel/officials/students/scholars visited the museum, herbarium and library of this regional centre whereas 310 persons in 71 parties visited the NOEG, Yercaud.

### Publications

Yadav, S.K., Palanisamy, M. and Murthy, G.V.S. 2018. New records of two red seaweeds from Kerala coast, India. *Indian J. Mar. Sci.* 47(5): 1042–1046.

Yadav, S.K. and Palanisamy, M. 2018. *Martensia fragilis* Harv. (Delesseriaceae): A new record to seaweed flora of Karnataka coast, India. *J. Algal Biomass Utiln.* 9(2): 55–58.

– Dr. C. Murugan  
Scientist 'D' & HoO



## WESTERN REGIONAL CENTRE, PUNE

Dr. C.R. Jadhav, Botanist identified specimens of 40 field numbers for the project, “Floristic survey of Someshwara Wildlife Sanctuary, Karnataka.”

Dr. Priyanka Ingle, Scientist ‘B’ identified specimens of 12 field numbers for the project, “Floristic diversity of Wan Wildlife Sanctuary, Maharashtra”.

Sri S.C. Patil, Bot. Asst. identified specimens of five field numbers for the project, “Flora of Pushpagiri Wildlife Sanctuary, Karnataka”.

Ms. A.M. Neelima conducted Light microscopic studies of four orchid species for the project, “Seed morphology and cyto-taxonomy of some selected orchids of Northern Western Ghats”.

Dr. Sukumar Bhakta, Bot. Asst. identified 25 algal samples for the project, “Biodiversity assessment of microalgae from thermal springs of Maharashtra”.

Dr. A. Benniamin, Scientist ‘D’ identified 10 species for the project, “Ferns of Karnataka”.

Sri D. Jesubalan, Bot. Asst. identified four field numbers for the project, “Pteridophytic flora of Pushpagiri Wildlife Sanctuary, Karnataka with 10% periphery”.

Sri D. Tripathi, Senior Project Fellow identified specimens of four field numbers for the project, “Pteridophyte flora of Kudremukh National Park, Karnataka”.

Dr. Rashmi Dubey, Scientist ‘D’ identified 23 samples for the project, “Taxonomic Studies of Micro fungi of Sanjay Gandhi National Park along with its 10% peripheral area”.

Ms. Shreya Sengupta, Senior Project Fellow identified 11 micro fungi for the project, “Microfungi of Biligiri Rangaswamy Temple wildlife Sanctuary, Karnataka”.

### Public service rendered

During this month five plant specimens identified and issued authentication certificates to students from B. Pharm, M. Pharm. colleges, Ph.D. and P.G. students from different institutions.

### Meeting/Workshop attended

Dr. P. Lakshminarasimhan, Scientist ‘E’ & HoO attended the meeting of Core Expert Group as a representative of Director, BSI to develop a guideline for eligibility conditions/parameters for identification of repositories on 05.05.2018 at National Biodiversity Authority, Chennai.

Dr. Sukumar Bhakta participated in the workshop on evaluation of project entitled, “Ecology and taxonomy of psychrophilic benthic and lithic algae from inland Antarctica” for 38th ISEA held from 16th to 17th May 2018, conducted at National Centre for Antarctic and Ocean research (NCAOR), Goa.

### International Day for Biological Diversity 2018

The International Day for Biological Diversity with a theme “Celebrating 25 Years of Action for Biodiversity” was celebrated on 22.05.2018 at WRC, BSI, Pune. A total of 36 participants from outside BSI attended.

### Visitors/students

Dr. M.M. Sardesai, Professor from Savitribhai Phule Pune University visited WRC.

A research student from Dr. Babasaheb Ambedkar Marathwada University, Aurangabad, Maharashtra visited WRC.

### Publication

Bhattacharjee, B., Lakshminarasimhan, P., Mukherjee, S.K. and Bhattacharjee, A. 2018. A conspectus of the Tribe Vernoniae (Asteraceae) in India. In: P. Agnihotri and J.S. Khurajam (eds.), *Angiosperm Systematics: Recent Trends and Emerging Issues*, pp. 107–124. Bishen Singh Mahendra Pal Singh, Dehra Dun.

– Dr. P. Lakshminarasimhan  
Scientist ‘E’ & HoO



**Celebration of International Biodiversity Day 2018 at WRC, Pune**



**Hon'ble Governor of West Bengal Sri Keshari Nath Tripathi and Hon'ble Union Minister for Environment, Forest & Climate Change Dr. Harsh Vardhan inaugurating Botanical Gallery at ISIM, Kolkata on 09.05.2018**









**Visit of Hon'ble Union Minister for Environment, Forest and Climate Change, Dr. Harsh Vardhan to Acharya Jagadish Chandra Bose Indian Botanical Garden and Central National Herbarium, Botanical Survey of India, Howrah on 09.05.2018 (pages 15 & 16)**

*Thanks to all the scientists and staff of regional centres and units of BSI for contributing to this Newsletter*

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