



# BSI NEWSLETTER

The monthly electronic newsletter of Botanical Survey of India

## Director's column

In this month, Scientists of BSI described a new wood rotting fungal genus, *Mycorrhaphoides* with a new species *M. stalpersii* from AJC Bose Indian Botanical Garden, Howrah, West Bengal and a new mushroom species, *Lactifluus rajendrae* from Uttarakhand. Similarly, in flowering plants, a new species, *Impatiens pseudocitrina* is described from Arunachal Pradesh.

On the other hand, new generic and species records have been published viz., the genus *Pleocnemia* (Pteridophyte) is reported as new to Andaman and Nicobar Islands, while the species, *Alyxoria culmigena* (Lichen) is reported new to India from these Islands. The species, *Alysicarpus roxburghianus* is recorded new to Gujarat.

In connection with the ongoing projects, collection tours were conducted to different regions, some of them to mention are: field tour to different parts of Sikkim to collect orchids; to Kudremukh National Park, Karnataka to collect pteridophytes; to Neora Valley National Park, West Bengal, Sariska Tiger Reserve, Rajasthan, Pachmarhi Biosphere Reserve, Madhya Pradesh, Sacred Groves in some districts of Andhra Pradesh, Someshwara WLS, Karnataka and Meghamalai WLS, Tamil Nadu to document the plant wealth of those protected areas.

on 1st and 2nd October, 2016, Exhibition cum Seminar on "Joseph Dalton Hooker: Botanical Trailblazer and Botanical Heritage of India" was organized by BSI in collaboration with Sussex University, U.K., Royal Botanic Gardens, Kew, U.K. and Indian Museum, Kolkata at ISIM, Kolkata. On this occasion, Sri A.N. Jha, Secretary, MoEF & CC inaugurated the newly refurbished BSI Gallery at ISIM and also released certain books published by BSI.

Jai Hind!

**Paramjit Singh**

Director, Botanical Survey of India, Kolkata





## HEAD QUARTERS, KOLKATA

Dr. R.K. Gupta, Scientist 'D' visited Agharkar Research Institute, Pune for herbarium consultation from 19th to 24th October 2016.

In connection with the ongoing projects, 'Algal Flora of Jharkhand', 'Studies on wild mushrooms of Sikkim', 'Studies on the macrofungi of AJC Bose Indian Botanic Garden', 'Revision of the family Metzgeriaceae in India' 'Liverworts and Hornworts Flora of Darjeeling District, West Bengal' and 'Wood rotting fungi of Rajmahal hills', the scientific officials of Cryptogamic units made identifications, descriptions and illustrations.

Dr. S.K. Das, AJCBPDF identified 6 species of diatoms in connection with project entitled, "Taxonomic diversity and ecology of cyanobacteria and algae in the alpine regions of Eastern Himalaya".

Dr. Monalisa Dey, Scientist 'B' studied and photographed the following specimens obtained on loan from different herbaria: Naturalis, Leiden, Netherlands (L): *Acrolejeunea recurvata*, A. Touw 9464 (Holotype: L), *Acrolejeunea recurvata*, A. Touw 9468 (Paratype: L), *Acrolejeunea recurvata*, A. Touw 10372 (Paratype: L), *Acrolejeunea recurvata*, A. Touw 9087 (Paratype: L), *Acrolejeunea recurvata*, S. Kornochalert 930. Hattori Botanical Laboratory, Nichinan, Japan (NICH): *Acrolejeunea recurvata*, A.J. & E. Sharp 7802 (Paratype: NICH), *Acrolejeunea recurvate*, T. Tuyama (s.n.) (Paratype: NICH), *Acrolejeunea recurvata*, Larsen et al. 752 (Paratype: NICH). National Botanical Research Institute, Lucknow, India (LWG): *Trocholejeunea meghalayensis* A.P. Singh 208658-A (Paratype: LWG).

The Scientists and scientific officials attended an exhibition on 'Joseph Dalton Hooker: Botanical Trailblazer and the Botanical Heritage of India' organized by BSI in joint collaboration with the University of Sussex, U.K. and at Industrial Section in Indian Museum, BSI, Kolkata on 1st and 2nd October 2016. Displays on various subjects were made in the new renovated gallery and were explained to the Secretary, MoEF & CC, New Delhi, who inaugurated the exhibition on 01.10.2016.

### Hindi Pratiyogita

Dr. R.K. Gupta and Dr. Devendra Singh acted as judges in *Hindi Pratiyogita* held at AJC Bose Indian Botanic Garden and Central Botanical Laboratory.

### Training attended

Sri Manoj Emanuel Hembrom, Botanist & DDO attended one day PFMS training at BSI (Hqrs.), CGO Complex, Salt Lake, Kolkata on 17.10.2016.

### Public service rendered

Dr. A.B.D. Selvam pharmacognostically studied and authenticated nine crude drug samples received from M/s Imami Limited, Kolkata.

Dr. S.K. Das reviewed two manuscripts for *Cryptogam Biodiversity* and *Assessment and International Research Journal of Public and Environmental Health* journals.

### Publications

Das, S.K. and Singh, D. 2016. New distributional record of two marine macro-algae from Larsemann Hills, East Antarctica. *Phykos* 46 (2): 29–32.

Hembrom, M.H., Das, K., Nilsson, R.H., Parihar, A., Baghela, A., Mehta, N., Singh, S.K. and Hallenberg, N. 2016. Morphology and phylogeny reveal a novel hydroid taxon from India: *Mycorrhaphoides stalpersii* gen. and sp. nov. *Nordic J. Bot.* doi: 10.1111/njb.01256.

Hyde, K.D., Hongsanan, S., Jeewon, R., Bhat, D.J., McKenzie, E.H.C., Jones, E.B.G., Phookamsak, R., Ariyawansa, H.A., Boonmee, S., Zhao, Q., Abdel-Aziz, F.A., Abdel-Wahab, M.A., Banmai, S., Chomnunti, P., Cui, B.K., Daranagama, D.A., Das, K., Dayarathne, M.C., de Silva, N.I., Dissanayake, A.J., Doilom, M.,



Ekanayaka, A.H., Gibertoni, T.B., Góes-Neto, A., Huang, S.K., Jayasiri, S.C., Jayawardena, R.S., Konta, S., Lee, H.B., Li, W.J., Lin, C.G., Liu, J.K., Lu, Y.Z., Luo, Z.L., Manawasinghe, I.S., Manimohan, P., Mapook, A., Niskanen, T., Norphanphoun, C., Papizadeh, M., Perera, R.H., Phukhamsakda, C., Richter, C., Santiago, A.L.C.M. de A., Drechsler-Santos, E.R., Senanayake, I.C., Tanaka K, Tennakoon TMDS, Thambugala KM, Tian Q, Tibpromma S, Thongbai B, Vizzini A, Wanasinghe, D.N., Wijayawardene, N.N., Wu, H.X., Yang, J., Zeng, X.Y., Zhang, H., Zhang, J.F., Bulgakov, T.S., Camporesi, E., Bahkali, A.H., Amoozega, A.M., Araujo-Neta, L.S., Ammirati, J.F., Baghela, A., Bhatt, R.P., Bojantchev, S., Buyck, B., da Silva, G.A., de Lima, C.L.F., de Oliveira, R.J.V., de Souza, C.A.F., Dai, Y.C., Dima, B., Duong, T.T., Ercole, E., Mafalda-Freire, F., Ghosh, A., Hashimoto, A., Kamolhan, S., Kang, J.C., Karunarathna, S.C., Kirk, P.M., Kytovuori, I., Lantieri, A., Liimatainen, K., Liu, Z.Y., Liu, X.Z., Lücking, R., Medardi, G., Mortimer, P.E., Nguyen, T.T.T., Promputtha, I., Raj, K.N.A., Reck, M.A., Lumyong, S., Shahzadeh-Fazeli, S.A., Stadler, M., Soudi, M.R., Su, H.Y., Takahashi, T., Tangthirasunun, N., Uniyal, P., Wang, Y., Wen, T.C., Xu, J.C., Zhang, Z.K., Zhao, Y.C., Zhou, J.Z., Zhu, L. 2016. Fungal diversity notes 367–490: taxonomic and phylogenetic contributions to fungal taxa. *Fungal Diversity* 80(1): 1–270.

Singh, D.K, Singh, S.K. and Singh, D. 2016. *Liverworts and hornworts of India: An annotated checklist*. Botanical Survey of India, Kolkata. 439 pp. (ISBN: 81-8177-088-9).

Uniyal, P., Das, K., Adhikari, S., Singh, U. and Mehmood, T. 2016. *Lactifluus rajendrae* sp. nov. (Russulaceae) from India. *Phytotaxa* 278(3): 257–264.

### AJC BOSE INDIAN BOTANIC GARDEN, HOWRAH

Plant collection tour was conducted to different parts of Sikkim under the project, 'Collection, Introduction and *ex-situ* Conservation of Rare and Endemic Orchids of NE India' from 21st to 31st October 2016 by Dr. M.U. Sharief, Scientist 'E' and Dr. B.K. Singh, Sr. Presv. Asst. and about 100 saplings of orchids belonging to 31 species are introduced in the garden for *ex-situ* conservation.



Temperate vegetation of North Sikkim



Dr. M.U. Sharief and Dr. B.K. Singh during the tour to Sikkim



*Epigeneium amplum* (Orchidaceae)

#### Garden Maintenance

Regular maintenance of the plant saplings collected during different tours are being carried out at nurseries. Special drive is taken for de-weeding with recently procured new garden equipment and cleaning of different divisions and vantage points in the garden. Preparation of bed for winter flower plantation is under progress.



The encaged aerial roots of the Great Banyan tree were repaired during this period in respect of re-fixing and replacing of bamboo cages fitted to them according to their growth and necessity. New support has been provided to the heavy branches by bamboos. Aerial roots were encaged in bamboo cages for training them as 'prop root'.

### Training/seminar attended

Scientists and scientific staff of AJCBIBG participated as members of various committees formed for two-day seminar and exhibition on "Joseph Hooker: Botanical Trailblazer and Botanical Heritage of India" organized by BSI in collaboration with University of Sussex, U.K., Royal Botanic Gardens, Kew and Indian Museum, Kolkata at ISIM on 1st and 2nd October 2016.

Dr. S.P. Panda, Scientist 'B' attended training on "Financial Management in Research Organisations" at Indian Institute of Public Administration, New Delhi from 3rd to 7th October 2016.

### Visitors/students

Delegates (14 nos.) of the exhibition on "Joseph Hooker: Botanical Trailblazer and Botanical Heritage of India" on 02.10.2016.

Sri P.K. Dash, Addl. Secretary, MoEF & CC, New Delhi on 10.10.2016.

Ms. Eapsa Berry, Research scholar, Department of Botany, University of Delhi, to study the flowers of plants belonging to Zingiberales and other monocot groups on 14.10.2016.

Students (70 nos.) of Gobindapur Ratneswar High School along with West Bengal State Biodiversity Board on 23.10.2016.

– Dr. A. Pramanik  
Scientist 'E' & HoO



Photo: AJCBIBG

Potting of orchids at Nursery I

## CENTRAL NATIONAL HERBARIUM, HOWRAH

One field tour was conducted to Neora Valley National Park, Darjeeling from 20th October to 5th November 2016 (15 days) and collected specimens of 535 field numbers by Dr. Vinay Ranjan, Scientist 'D', Dr. Gopal Krishna, Bot. Asst. and Sri Anant Kumar, Bot. Asst., Hqrs., BSI.



*Ceropogia pubescens* (Asclepiadaceae)



*Oxyspora paniculata* (Melastomataceae)

### Herbarium specimen identification

Dr. Vinay Ranjan identified specimens of three field numbers collected from Newada and Aurangabad districts, Bihar.



Dr. O.N. Maurya, Scientist 'C' identified seven field numbers collected from Vikramshila Gangetic Dolphin Wildlife sanctuary, Bhagalpur, Bihar.

Dr. Kumar Avinash Bharati, Scientist 'B' identified 10 species collected from Baraila lake Salim Ali Jubba Sahni Bird Sanctuary, Vaishali District, Bihar.

Sri P.P. Ghoshal, Botanist identified five species collected from Betla National Park, Latehar, Jharkhand.

Dr. Gopal Krishna identified specimens of field numbers collected from Aurangabad, Nawada and Banka districts, Bihar.

### Herbarium specimens digitized

A total of 20 specimens scanned. Enumeration of the 10 type specimens belonging to the genus *Uvaria* under the family Annonaceae completed.

### Public service rendered

Dr. Rajib Gogoi, Scientist 'D' reviewed manuscripts one each on *Impatiens* received from *Nordic Journal Botany* and *Telopea*.

Dr. V. Sampath Kumar, Scientist 'D', reviewed one manuscript on lectotypification of *Begonia* species, received from *Bangladesh Journal of Plant Taxonomy*.

Dr. K. Karthigeyan, Scientist 'D' reviewed one article received from the journal *Rheedea* (Silver Jubilee volume-2016).

Dr. Karthigeyan also provided an image of Roxburgh's Icon *Andrachne trifoliata* (Icon no.-2483) to Dr. Van Welzen, University of Leiden, The Netherlands.

Dr. S. Bandyopadhyay, Scientist 'B' provided PDF of 225 pages [Maesen, L.G.J. Van der (1986). *Cajanus* DC. and *Atylosia* W. & A. (Leguminosae). Agri. Univ. Wageningen Papers 85-4: 1-225] to Dr. M. Sanjappa, former Director, BSI. Dr. Bandyopadhyay also gave an opinion on the typification of *Tephrosia canarensis* and *T. barberi* to Dr. M.V. Krishnaraj, Asst. Prof., Department of Botany, Baselius College, Kottayam, Kerala and on the typification of *Bignonia xylocarpa* Roxb. to Dr. Virendra Madhukar, NRC, BSI.

Dr. Avishek Bhattacharjee, Scientist 'B' sent images of two specimens of *Hoya* collected from Sumatra by Teijsmann to Dr Michele Rodda, Senior Researcher, National Parks Board, Singapore and an image of the holotype of *Canscora bhatiana* to Dr. Sharad Kambale, Asst. Prof., MVP's ACS College, Nashik, Maharashtra.

Dr. A. Bhattacharjee also reviewed one manuscript for the journal *Bangladesh Journal of Plant Taxonomy*.

Dr. Mahua Pal, Botanist sorted out eight herbarium sheets of *Hemiorchis* as required by Mark Newman, Royal Botanic Garden, Edinburgh.

Sri V.K. Mastakar provided botanical information and literature on *Croton bonplandianus* (Euphorbiaceae), *Parthenium hysterophorus* (Asteraceae) and *Lantana camara* (Verbenaceae) to Ms. Jyoti Kumari Yadav, student of Class 10th of Jawahar Navodaya Vidyalaya, Howrah for participating in National Level Science Symposium at Jaipur, Rajasthan.

Dr. V.P. Prasad, Scientist 'D' identified 7 specimens, Sri V.K. Mastakar identified 25 specimens and Sri Anant Kumar identified about 15 specimens for Mrs. Vijaylaxmi Naidu, SRF, Guru Ghasi Das Central University, Bilaspur, Chhattisgarh.

CNH officials (Dr. Prasad, Dr. Sangita Dey, Dr. S. Pathak, Sri Anant Kumar, Dr. Krishna, Sri Mastakar and Sri S. Biswa) identified 70 plant specimens which have come from various institutions/colleges/Universities.



**Swachh Bharat Abhiyan at Central National Herbarium**

### Swachh Bharat Abhiyan

CNH officials took part in cleaning of CNH campus on 2nd October 2016, as part of the Action Plan on Swachh Bharat Abhiyan.



### Seminar attended

CNH officials participated in the Exhibition cum Seminar on 'Joseph Hooker: Botanical Trailblazer and the Botanical Heritage of India' jointly organized by Botanical Survey of India, University of Sussex, UK and India Museum, Kolkata on 1st and 2nd October 2016 at Industrial Section Indian Museum, Kolkata.

### Visitors/students

Dr. Sankharoop Ghoshal, National Research Centre for Orchid, Darjeeling from 28th September to 7th October 2016 and from 24th October to 4th November 2016.

Dr. Vinita Damodaran, Centre for World Environment History, University of Sussex; Dr. Gina Fullerlove, Royal Botanic Gardens, Kew; Dr. Antonia Moon, British Library; Mrs. Anupama K., French Institute of Pondichery; Dr. Rohan D'Souza, Kyoto University, Japan; Dr. Robert Prys-Jones, Natural History Museum, UK; Dr. Henry Noltie, Royal Botanic Garden, Edinburgh; Dr. Romita Ray, Syracuse University and Dr. Mike Rayner, University of Sussex on 02.10.2016.

Mr. Prasana K. Dash, Addl. Sec & FA, MOEF & CC on 10.10.2016.

Ms. Alisha Dutt Islam, Srishti College, Bangalore on 14.10.2016.

Post graduate students of Botany and their teacher, Dr. Sanjib Baruah from Boroland University on 21.10.2016.

30 students from Kolora High School, Bodoland University, Assam on 21.10.2016

50 students from Purab Midnapur College, West Bengal on 25.10.2016.

40 students from Panchpota Bharadanga High school, West Bengal on 26.10.2016.

Dr. R.C. Mishra, NBPGR, Cuttak, Odisha on 28.10.2016 and 29.10.2016.

### Publications

Prasad, V.P. and Govaerts, R. 2016. Five new names in the genus *Cyperus* L. (Cyperaceae). *Skvortsovia* 3(1): 1–3.

Hareesh, V.S., Gogoi, R. and Sabu, M. 2016. *Impatiens pseudocitrina* (Balsaminaceae), a new species from Arunachal Pradesh, Northeast India. *Phytotaxa* 282(3): 231–234

Mao, A.A. and Gogoi, R. 2016. Flora Dzukii/Dzukou Valley, Botanical Survey of India, Kolkata.

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

## CENTRAL BOTANICAL LABORATORY, HOWRAH

Dr. K.A. Sujana, Scientist 'C' identified 13 plant species collected from Malkangiri district, Odisha; Sri A.C. Halder and Sri Baske, Botanists identified 26 plant species collected from Baudh district of Odisha. Dr. Sujana and Sri R. Saravanan, Bot. Asst. collected secondary data on 22 endemic trees of Western Ghats with their ethnobotanical and economical uses. Ms. Monika Mishra, Bot. Asst. collected seed of *Adenantha pavonina* and put for their germination for chromosome count. Ms. Sagari Chaudhury, SPF completed description of 20 plant species.

### Hooker's Exhibition at ISIM, Kolkata

Dr. Harish Singh, Dr. K.A. Sujana, R. Saravanan, Dr. P.A. Dhole and Monika Mishra attended a seminar and Exhibition on "Joseph Hooker: Botanical Trailblazer and Botanical Heritage of India" organized by in joint collaboration with University of Sussex, U.K. and ISIM on 1st and 2nd October 2016 at ISIM section, Kolkata.

Dr. Harish Singh demonstrated 40 ethnomedicinal plant parts, 4 laminated photographs and 19 ethnobotanical artefacts in new gallery of ISIM Kolkata and explained to the Secretary, MoEF & CC and all foreign/Indian dignitaries/visitors as a member of Exhibition Committee during Hooker's exhibition on 01.10.2016.

### Parliamentary committee visit

Dr. Harish Singh, K.A. Sujana and Dr. P.A. Dhole demonstrated 2 posters on display board at 3rd floor of CNH on the visit of Parliamentary committee on 21.10.2016 and 23.10.2016.



### **Hindi Diwas Samaroh**

Dr. Harish Singh organized *Hindi Diwas Samaroh* in CBL and conducted 3 different competitions as *Rajbhasha Adhikari* of CBL on 04.10.2016.



**Hindi Diwas Samaroh at Central Botanical Laboratory, Howrah**

Photo: CBL

### **Visitors/Students visited**

12 students and two Teachers from Tirol High School (H.S.), Tirol, Hooghly (W.B.) and 12 students and one Teacher from Department of Botany, Bodoland University, Assam visited ethnobotanical museum, CBL Howrah.

– Dr. Harish Singh  
Scientist 'D' & HoO

## **INDUSTRIAL SECTION INDIAN MUSEUM, KOLKATA**

The botanical paintings by Roxburgh are being interpreted with updated nomenclature. Under this project one species *Eugenia jambolana* of family Myrtaceae was studied and interpretation continued.

### **Database of Herbarium Specimens**

As a part of preparing a database of herbarium specimens at BSIS, 20 numbers of Dicot herbarium specimens were listed and documented.

### **Updating of Nomenclature of digitized Herbarium Specimens at BSIS**

113 numbers of Digitized Herbarium specimens were updated with valid botanical names, basionyms/synonyms.

### **Programme organized/conference attended**

Inauguration of Exhibition and Seminar on “J.D. Hooker: Botanical trailblazer and the Botanical Heritage of India” by Sri Ajay Narayan Jha, IAS, Secretary, MoEF&CC accompanied by Dr. (Mrs.) R. Dalwani, Advisor, MoEF&CC at ISIM, Kolkata with a gathering of 130 delegates from India and abroad on 01.10.2016. The invited speakers for this two-day Seminar were: Henry Noltie (RBG, Edinburgh); Robert Pyrs-Jones (NHM, London); Ginna Fullerlove (RBG, Kew); Antonia Moon (British Library); Rohan D' Souza (Kyoto University); Vinita Damodaran (University of Sussex, UK); K. Anupama (French Institute, Pondicherry); Deepak Kumar (JNU, New Delhi); Arun Bandopadhyaya (CU); Jenia Mukherjee (IIT, Kharagpur); Mahua Sarkar (JU); Sutapa Sarkar (CU); Bikramaditya Chowdhery (JNU, New Delhi); Bipasha Raha (Visva-Bharati University); Subir Dey (JNU, New Delhi); Anindita Saha (Kolkata). Visit made by Sri P.K. Dash, Additional Secretary and Financial Advisor, MoEF&CC to review the renovation work (civil and electrical) undertaken by the NBCC for the project, ‘Restoration of ISIM building at Indian Museum campus’ on 10.10.2016. Dr. A.K. Sahoo, Scientist ‘D’ participated in the National Conference and Mizoram Science Congress-2016 held at Mizoram University, Aizwal on 13.10.2016 and 14.10.2016 and delivered a key note address on ‘An observation on Bioperspective plants of India’ for the technical session on Life Sciences.

– Dr. Manas Bhaumik  
Scientist 'D' & HoO



# Exhibition and Seminar on “J.D. Hooker: Botanical trailblazer and the Botanical Heritage of India” at ISIM, Kolkata









## ANDAMAN & NICOBAR REGIONAL CENTRE, PORT BLAIR

Dr. T.A.M. Jagadeesh Ram, Scientist'D' identified 84 specimens of Collemataceae into 12 species.

Dr. C.P. Vivek, Bot. Asst. identified 3 herbarium specimens into 2 species of *Alternanthera* of family Amaranthaceae.

### Digitization of herbarium specimens

**Herbarium sheets Scanned:** 468 herbarium specimens of the family Amaranthaceae, Lamiaceae and Nyctaginaceae were scanned.

**Herbarium specimen details computerized:** 1304 herbarium specimens belonging to the family Anacardiaceae, Celastraceae, Hippocrataceae, Leeaceae, Rhamnaceae, Sabiaceae, Sapindaceae, Staphyleaceae and Vitaceae were fed in the computer in a prescribed format.

### Observance of Vigilance Awareness Week – 2016

As a part of the Vigilance Awareness Week, Dr. Lal Ji Singh, Scientist 'D' & HoO, administered the pledge to all the Scientists and staff members of the office on 31.10.2016

### Meeting/conference/programme/function attended

Dr. Lal Ji Singh attended the Exhibitions and Conference on *J.D. Hooker: Botanical Trailblazer and the Botanical Heritage of India* at Industrial Section Indian Museum, Kolkata on 1st and 2nd October 2016.

Dr. Singh attended the 5th Training Programme on Financial Management at Indian Institute of Public Administration, New Delhi from 3rd to 7th October 2016.

Dr. Jagadeesh Ram attended the valedictory function of the '62nd Wildlife Week Celebration 2016' organised by the Department of Environment & Forests, Andaman and Nicobar Administration at Tagore Govt. College of Education Auditorium on 08.10.2016. .

Dr. Singh attended a meeting of Editorial Board, Journal of the Andaman Science Association at CIARI, Port Blair on 14.10.2016 and 29.10.2016.

### Visitors/students

Prof. Arvind S. Dhabe, Head of Department, Botany, Dr. Babasaheb Ambedkar Marathwada University, Aurangabad visited garden on 05.10.2016.

Smt. Kaushallya, Ferargunj visited herbarium on 10.10.2016.

Sri V. K. Abdul Selem, Wimberligunj visited herbarium on 14.10.2016.



Photo: G.A. Ekka

Dr. Lal Ji Singh administering Vigilance Awareness Pledge to the officers and staff



Visitors at Museum and Herbarium (Lichen section) at ANRC, Port Blair

Photo: G.A. Ekka



Smt. Sushma Singh, Government Girls Senior Secondary School along with 5 students visited library on 19.10.2016.

Smt. Latha, GTT, Kamaraj English Medium School along with 5 students visited library on 20.10.2016.

Six M.Sc. students, JNRM, Port Blair visited library on 21.10.2016.

Sri Joju P. Alappatt, Director, Forest Training Institute, Port Blair visited Herbarium on 28.10.2016.

Sri Devendra Singh Bisht, Senior Account Officer, MOEF & CC along with 3 members visited museum, library and herbarium on 31.10.2016.

Sri Suryakant, G.B. Pant National Institute of Himalayan Environment NS Sustainable Development, Almora, Uttarakhand along with 3 members visited museum, library and herbarium on 31.10.2016.

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

## ARUNACHAL PRADESH REGIONAL CENTRE, ITANAGAR

Dr. Umeshkumar L. Tiwari, Scientist 'B' conducted a field tour to East Kameng district of Arunachal Pradesh from 19th September to 6th October 2016 and collected 231 field numbers of specimens in connection with 'Flora of East Kameng, Arunachal Pradesh'.



*Galearis spathulata* (Orchidaceae)



*Schoenorchis gemmata* (Orchidaceae)

Photo: S. Borah

### Herbarium specimen identification

Dr. P. Satyanarayana, Scientist 'D' & HoO and Sri B.B.T. Tham, Botanist completed descriptions for 43 species in connection with 'Flora of Pakhui Tiger Reserve and Wild Life Sanctuary'.

Dr. Vineet Kumar Rawat, Scientist 'D' completed descriptions for 9 species in connection with 'Taxonomic study of the family Polypodiaceae of North East India'.

Dr. Manish Kandwal, Scientist 'D' identified specimens of 13 field numbers in connection with 'Grass Flora of Arunachal Pradesh'.

Dr. S. Borah, Botanist made descriptions for 25 species in connection with 'Flora of Lohit District and Flora of Kamlang WLS, Arunachal Pradesh'.

### Public service rendered

Dr. Rawat attended Sri Robert Panmei, Research Scholar from North East Research Institute on Science and Technology and identified 50 fern species.

### Seminar attended

Dr. Krishna Chowlu, Scientist 'B' attended an International Seminar in Rajiv Gandhi University, Itanagar from 15th to 18th October 2016 and delivered a lecture on 'Orchid Diversity of Manipur, India'.

### Publication

Tiwari, U.K.L. 2016. *Onosma bracteata* Wall. in Roxb. and correct identity of *Arnebia nandadeviensis* Sekar et al. in India. *J. Threat. Taxa* 8(11): 9391–9393.

– Dr. P. Satyanarayana  
Scientist 'D' & HoO



## ARID ZONE REGIONAL CENTRE, JODHPUR

In connection with 'Flora of Sariska Tiger Reserve, Alwar district, Rajasthan', Dr. M.K. Singhadiya, Botanist and Sri Ravi Prasad, Bot. Asst. conducted a field tour from 18th September to 2nd October 2016 and collected specimens of 391 field numbers and 2 female cones of *Pinus roxburghii*. For 'Floristic diversity of Aliya-bet, Bharuch, Gujarat', Sri Vinod Maina, Scientist 'D' & HoO, Dr. Ramesh Kumar, Scientist 'C' and Dr. C.S. Purohit, Scientist 'B' conducted a field tour from 4th to 13th October 2016 and collected specimens of 146 field numbers. For 'Ecological and Floristic study of Machiya Biological Park, Jodhpur', Sri Vinod Maina, Dr. Ramesh Kumar and Dr. C.S. Purohit conducted a exploration tour and quadrat studies from 26th to 29th October 2016 and collected specimens of 106 field numbers.



Photo: C.S. Purohit

*Aliya ghass* in Aliya-bet, Gujarat



*Porteresia coarctata* (Poaceae) at Aliya-bet, Gujarat



Photo: M.K. Singhadiya

*Barleria prionitis* var. *dicantha* (Acanthaceae)



Photo: Ravi Prasad

Fruits of *Grewia tenax* (Malvaceae)

### Herbarium specimen identification

Specimens of 115 field numbers identified, which includes 15 field numbers of 'Ethnobotany of Dang Dist., Gujarat' by Sri Vinod Maina and Sri Ravi Prasad, 37 field numbers of 'Flora of Shoolpaneshwar WLS, Narmada Dist., Gujarat' by Dr. S.L. Meena, Scientist 'D' and Dr. Harikrishana Peddi; 33 species of 'Flora of Navsari Dist., Gujarat' by Dr. Ramesh Kumar and Sri Vinod Maina, 15 field numbers of 'Flora of Todgarh-Raoli WLS, Rajasthan' by Dr. C.S. Purohit; 15 field numbers of 'Flora of Sariksa Tiger Reserve, Alwar Dist., Rajasthan' by Dr. M.K. Singhadiya and Sri Ravi Prasad.

### Plant conservation

Following plant species have been introduced to pomological section, germplasm procured from CAZRI, Jodhpur: *Ziziphus jujuba* cultivar *Apple*, *Ziziphus jujuba* cultivar *Gola* and *Punica granatum* cultivar *Bhagwa*. Phenological data of 36 plants species of Desert Botanic garden of AZRC were recorded.



### Public service rendered

Identified seven plant specimens for visitors.

### Meetings attended

Sri Vinod Maina attended Rajasthan State Wildlife Board meeting at Jaipur on 20.10.2016.

Dr. S.L. Meena attended a RAG meeting on 13th and 14th October 2016 at AFRI, Jodhpur.

### Visitors/students

Dr. Pratibha and Dr. Mahesh, Research Scholar, National Institute of Ayurveda, Jaipur, Ms. Wimpy Kumari and Sri Ashwin Singh, M.Sc. Student, Lachoo Memorial College visited herbarium on 14.10.2016

### Publication

Kumar, R., Maina, V. and Purohit, C.S. 2016. *Alysicarpus roxburghianus* Thoth. & Pramanik (Fabaceae) – New to Gujarat State. *Indian J. Forestry* 39(3): 291–292.

– Sri Vinod Maina  
Scientist 'D' & HoO

## CENTRAL REGIONAL CENTRE, ALLAHABAD

Dr. G.P. Sinha, Scientist 'E' & HoO and Dr. A.N. Shukla, Scientist 'B' conducted a survey and plant collection tour to Pachmarhi Biosphere Reserve from 17th to 25th October 2016. Total 25 field numbers of higher plant specimens and 34 packets of lichens were collected.



A view of Forest at Bori Reserve, Pachmarhi



A view of Mixed forest of Pachmarhi Biosphere Reserve

### Herbarium identification

A total of 42 species under 85 specimens were identified in connection with the project 'Flora of Chhattisgarh- Vol. I'.

Taxonomic description of 45 species: 29 species for 'Flora of Chhattisgarh Vol. II'; eight species for 'Flora of Parvati Aranga Wildlife Sanctuary and adjacent Tikri forest area, Gonda, UP'; eight species for 'Flora of Chandraprabha Wildlife Sanctuary, Chandauli, U.P. were completed.

For the project 'Taxonomic studies on lichenised non Thelotremond Indian Graphidaceae' a total of 10 species under 25 specimens were identified.

### Meeting attended

Dr. G.P. Sinha attended a meeting of Central Government Employees Welfare Committee held at A.G. Office, Allahabad on 14.10.2016.



*Clematis triloba* (Ranunculaceae) in bloom at Pachmarhi



### Public service rendered

Dr. A.N. Shukla evaluated a thesis entitled, 'The floristic and ethnobotanical studies of Dumka district of Santhal Pargana with special reference to under-utilized plants vis-a-vis their conservation' received from the Department of Botany, S.K.M. University, Dumka, Jharkhand.

Sri Vineet Kumar Singh authenticated 2 specimens, one each of *Dendrophthoe falcata* brought by Ms. Deepika Singh, M. Pharm. student, Shambhunath Institute of Pharmacy, Jhalwa, Allahabad and *Cheilocostus speciosus* received from Sri Hari Shankar Yadav, Research Scholar, Govt. D.B. Girls P.G. College, Raipur, Chhatisgarh.

Dr. Nitisha Srivastava, Bot. Asst. reviewed a manuscript for *World Journal of Agricultural Sciences*.

### Visitors/students

Dr. A.N. Shukla attended 40 M.Sc. (Botany) students from CMP College, Allahabad on 14.10.2016.

### Publications

Garg, A. and Joshi, B. 2016. Keystone trees in Upper Ramsar Site sustaining Rose-ringed Parakeets (*Psittacula krameri*). *Indian For.* 143(10): 1035–1036.

Joseph, S., Jagadeesh Ram, T.A.M., Sinha, G.P. and Ramachandran, V.S. 2016. A new record and key to the genus *Alyxoria* (lichenized Ascomycota) in India. *Feddes Repert.* 127: 30–33.

Singh, V. and Srivastava, S.K. 2016. Parvati Aranga Bird Sanctuary - Castle for Purple Gallinule in Eastern Uttar Pradesh. *Indian For.* 143(10): 1028–1029.

Tiwari, A.P. 2016. Lectotypification of *Albizia thompsonii* (Leguminosae: Mimosoideae). *Phytotaxa* 277(3): 294–296.

Tiwari, A.P., Bholanath and Shukla, A.N. 2016. *Global warming bhavishaya ki ek nayi chunauti*. *Vigyan Paricharcha* 6(3): 23–26.

Verma, A.K., Dhawan, S.S., Singh, S., Kumar, A.B., Jyotsana. 2016. Genetic and Chemical profiling of *Gymnema sylvestre* accessions from central India: It's Implication for quality control and therapeutic potential of Plant. *Pharmacognosy*, 12(47): 407–413.

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

## DECCAN REGIONAL CENTRE, HYDERABAD

Dr. J. Swamy, Bot. Asst. has undertaken a field tour to Sacred Groves of Anantapur and Kadapa districts of Andhra Pradesh from 1st to 10th October 2016 and collected 180 field numbers of specimens and also documented about 400 species. Sri S. Nagaraju, Bot. Asst. consulted herbarium of Yogi Vemana University, Kadapa, Andhra Pradesh from 7th and 8th October 2016. Sri K. Chandramohan, SPF conducted a field tour to Mahanadi Wildlife Division of Odisha from 27th September to 3rd October 2016 and collected specimens of 36 field numbers. Dr. K. Prasad, RA has undertaken a field tour to Kukal grass lands and Palni hills of Tamil Nadu from 6th to 10th October 2016 and collected six field numbers of specimens and also consulted herbarium of Western Regional Centre, Pune.

Dr. J. Swamy identified 25 field numbers in connection with the Sacred Groves of Andhra Pradesh and Sri K. Chandramohan identified 10 field numbers for Flora of Satkosia Wildlife Sanctuary, Odisha.

Dr. L. Rasingam, Scientist 'C' & HoO documented 17 species in connection with the 'Flora of Nagarjunasagar – Srisailem Wildlife Sanctuary'; Dr. G. Swarnalatha, Bot. Asst. studied 10 lichen specimens obtained on loan from herbarium of Central Regional Centre, Allahabad; Sri K. Chandramohan made descriptions and keys for eight families viz., Poaceae, Leguminosae, Moraceae, Annonaceae, Malvaceae, Lythraceae, Orchidaceae and Zingiberaceae in connection with the 'Flora of Satkosia Tiger Reserve' and Mrs. P.S. Annamma, SPF, made descriptions for 10 species in connection with the 'Flora of Kawal Tiger Reserve'.





Photo: J. Swamy

Population of an endemic tree *Croton scabiosus* (Euphorbiaceae) from Kadapa, Andhra Pradesh



Photo: J. Swamy

Devotees performing Pooja to *Ficus* tree at Polathala Sacred Grove, Kadapa, Andhra Pradesh



Photo: K. Chandramohan

*Cycas orixensis* (Cycadaceae) from Satkosia Tiger Reserve, Odisha

### Digitization of herbarium specimens

In connection with digitization of herbarium specimens at BSID, 300 herbarium specimens of 19 genera of 4 families viz., Santalaceae, Loranthaceae, Euphorbiaceae and Phyllanthaceae were scanned and data entry of label information completed. About 200 scanned images were converted from TIFF to JPEG format.

### Public service rendered

Dr. J. Swamy identified two plant specimens for Stiriti Ayur Therapies Pvt. Ltd., Nalgonda of Telangana State and also provided service to Sri M. Mahendranath, Research Scholar, Department of Botany, Sri Venkateswara University, Andhra Pradesh.

### Meetings/programmes attended

Dr. K. Prasad, attended national work shop on DNA Bar-coding and Phylogenetics of Plants (DBPP-2016) at Agharkar Research Institute, Pune from 17th to 21st October 2016.

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

## EASTERN REGIONAL CENTRE, SHILLONG

During the period, one tour was conducted from 4th to 25th October 2016 to Hekiche, Kohima Dist., Toubu, Monyakshu in Mon District, Nagaland by Dr. N. Odyuo, Scientist 'D' and Dr. Dilip K. Roy, Bot. Asst. for the Project 'Flora of Nagaland'.



A local tour was conducted by Dr. M. Murugesan, Scientist 'B' and Sri L.R. Meitei, Bot. Asst. on 23.10.2016 to Cherrapunjee and Pynursula forest areas for collection of live plants viz., *Bulbophyllum* spp. (3 spp., 13 individuals); *Coelogyne* spp. (2 spp., 5 individuals); *Dendrobium* spp. (3 spp., 8 individuals); *Impatiens* sp. (6 individuals); *Asplenium* sp. (5 individuals); *Utricularia* sp. (12 individuals); *Goodyera* sp. (4 individuals) and *Anthogonium gracile* (1 individual) for planting in Experimental Botanical Garden, Barapani.

During this period identified 31 species from Flora of Eastern Nagaland by Dr. N. Odyuo and Dr. R. Daimary, Bot. Asst.; Flora of West & South-West Khasi hills district with reference to the sacred groves by Dr. Chaya Deori, Scientist 'D' and Sri S.R. Talukdar, Bot. Asst.; described 11 species from flora of Yangoupokpi Lokchao WLS (Manipur) by Dr. A.A. Mao, Scientist 'F' & HoO and Screening and Listing the plant species collected from Nagaland by earlier workers housed in ASSAM for *Flora of Nagaland* (Vol. I & II).

Taxonomic description completed for 6 species for Bryoflora of Mizoram and studied literature pertaining to *Riccia* and thoroughly checked the nomenclature of *Riccia huebeneriana*, *Riccia curtisii* and their distribution pattern in the world by Dr. S.K. Singh, Scientist 'D' for Taxonomic Revision of genus *Riccia* (Marchantiophyta) in India.

For taxonomy, phylogeny and *ex-situ* conservation of Micro-fungal diversity from north-east India with special emphasis on fungi associated with endemic and threatened plants of Meghalaya fungal Cultures in collection was identified to 12 species and forty more cultures are currently been grown and observed and *Aquilaria khasiana* was processed by three step sterilisation method for observation of associated endophytes by Dr. Ashish Venkatesh Prabhugaonkar, Scientist 'B'.

*Ex-situ* conservation of Endemic, threatened and economically important plants of the region and recording phenological data on flowering and fruiting of species growing in the Garden by Dr. M. Murugesan and Sri L.R. Meitei, Bot. Asst. observed and recorded phenological data of flowering and fruiting of 38 plant species in Experimental Botanical garden, Barapani during this period.

Micro-propagation of RET Plants of Northeast India by Dr. A.A. Mao and L. Ibemhal Chanu, Bot. Asst. Reading



**Ex-situ conservation of *Paphiopedilum* species in ERC, Shillong**

for *Cymbidium tigrinum* in control, 10% banana, 10% coconut, 2% charcoal in MS. Lab to land transferred of *Cymbidium elegans* (about 250 plants) in greenhouse. Data analyze, interpretation, literature survey for *Armadorum senapatianum*, *Cymbidium tigrinum*. Collected *Illex khasiana* from Upper Shillong and planted at greenhouse for experiment.

For Micropropagation, Phytochemical Screening of Medicinal Plants and Molecular Characterization of Selected Species by Dr. Deepu Vijayan, Scientist 'B' continued subculturing of *in vitro* raised *Pyrenaria khasiana* on Woody Plant Medium supplemented with different growth regulators. DNA isolation of *Zingiber* sp., *Pyrenaria cherrapunjeana*, *Pyrenaria khasiana*, *Coelogyne* sp. *Rhododendron* sp. and *Ormosia*



sp. and was quantified on 0.8% agarose gel and documented. PCR amplification of DNA samples of different species of *Rhododendron*, *P. venustum* (Meghalaya), *P. venustum* (Arunachal Pradesh), *Zingiber* sp., *Pyrenaria cherrapunjeana*, and *Pyrenaria khasiana* using different primers (rbcl, Mat-K, ITS, psbA-trnH) was done and visualized under UV transilluminator and documented. Purification of PCR products was done and sent for sequencing. PCR amplification of DNA samples of *Coelogyne* sp. using rbcl was done and visualized under UV transilluminator and documented.

### Public service rendered

Identified 93 samples of specimens received from various institutions.

### Conference/lecture attended/conducted

Dr. A.A. Mao attend the International Conference on Global Biodiversity, Climate Change and Sustainable Development 2016 held at Rajiv Gandhi University, Arunachal Pradesh, India from 15th to 18th October 2016 and delivered a lecture on 'Taxonomy, Biodiversity and Conservation' and also chaired a technical session.

Dr. S.P.S Kushwaha, Dean (Academics), Indian Institute of Remote Sensing, Dehradun was

invited to deliver a lecture on 'Remote Sensing and GIS application in Forestry and Ecology' on 19.10.2016 and was attended by all the scientists and scientific staff.



Photo: ERC

Dr. A.A. Mao addressing a team of students from Cotton College State University, Guwahati

### Visitors/students

One Professor, five research scholars, 112 students, three lecturers and five other visitors from various Institutions, Colleges and Universities visited the Centre.

– Dr. A.A. Mao  
Scientist 'F' & HoO

## NORTHERN REGIONAL CENTRE, DEHRADUN

Identified total 67 species and made descriptions for 92 species of plants under the projects on Flora of Uttarakhand Vol. V; Floristic Diversity and Phytosociological study of Simbalbara National Park; Flora of Nandhour Wildlife Sanctuary; Flora of Sonanadi Wildlife Sanctuary; Flora of Sechu-Tuan Nala Wildlife Sanctuary, Himachal Pradesh; Trees of Dehradun city and its vicinity; Revision of family Cyatheaceae and genus *Adiantum* in India.

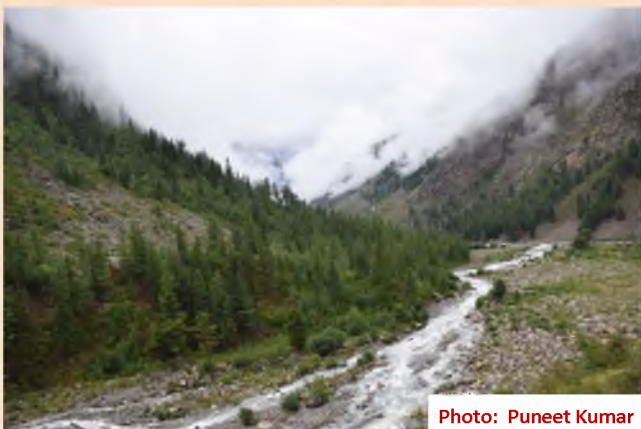


Photo: Puneet Kumar

A view of vegetation around Jambu Nalla in Sechu Tuan Nalla WLS, Chamba, Himachal Pradesh



Photo: P.K. Pusalkar

*Corydalis violacea* (Papaveraceae) - a threatened narrow range Western Himalayan Endemic



### Public service rendered

Identified total three specimens viz., *Nerium oleander*, *Cicer microphyllum* and *Astragalus candolleanus* for Dr. Anamika from Himalayan Ayurvedic College, Dehradun.



Dr. S.K. Srivastava along with staff cleaning the office premise on the occasion of *Swachhta Divas*



All the scientist and staff cleaning the office premise on the occasion of *Swachhta Divas*

Photo: V.K. Madhukar

### Swachhta Divas

All the scientist and staff participated on the occasion of Swachhta Divas to clean the premise of the centre on 2nd October, 2016.

### Visitors/students

15 students from Garg P.G. College, Laksar and 24 students from Dolphin P.G. College, Dehradun.

### Publication

Kumar, P., Singhal, V.K. and Srivastava, S.K. 2016. Meiotic Studies and B-Chromosomes in *Sedum oreades* (Decne.) R. Hamet (Crassulaceae) from Alpine Regions of Northwest Indian Himalaya. *Cytologia* 81(3): 275–278.

**Dr. S.K. Srivastava**  
Scientist 'E' & HoO

## SIKKIM HIMALAYAN REGIONAL CENTRE, GANGTOK

Dr. Dinesh Kumar Agrawala, Scientist 'C' & HoO identified 16 and illustrated Eight, Orchid species for the project "Red listing of Orchids of Eastern Himalaya as per IUCN criteria" and 50 specimens were finalized in respect of their identity, label data, finding geo-coordinates and entering in the excel sheet.

Sri Sundar Kumar Rai, Bot. Asst. identified 21 species from 30 unidentified specimens.

Sri Subash Pradhan, Field man identified six species from 12 unidentified specimens.

### Digitisation of herbarium specimens

570 herbarium sheets were scanned and meta data of 660 sheets belonging to Balsaminaceae family were entered into Excel-worksheet.

### Public Service rendered

Dr. D.K. Agrawala reviewed a paper for the journal *Rheedea*.

### Meeting/programme/training attended

Dr. D.K. Agrawala, attended two days Exhibition cum Seminar on Joseph Hooker: Botanical Trailblazer and the Botanical Heritage of India on 1st and 2nd October 2016 at Industrial section in the Indian Museum (ISIM), Kolkata.





**Dr. M. Sankararao in training Kitchen gardening, flower arrangement and Bonsai making**

Dr. D.K. Agrawala participated in the Foundation Day celebration of Indian Council of Agricultural Research (ICAR) - National Research Centre for (NRC) Orchids, Pakyong on 05.10.2016.

Dr. Sankararao Mudadla attended training on Kitchen gardening, flower arrangement and Bonsai making organized by state horticulture and cash crop development East Sikkim, Govt. of Sikkim on 05.10.2016

Dr. D.K. Agrawala attended Research Interface meeting at College of Agricultural Engineering and Post-Harvest Technology, Ranipool on 14.10.2016.

**– Dr. D.K. Agrawala**  
Scientist 'C' & HoO

## SOUTHERN REGIONAL CENTRE, COIMBATORE

Dr. C. Murugan, Scientist 'D' and Dr. S. Arumugam, Bot. Asst. conducted a field tour to Meghamalai WLS, Tamil Nadu from 23rd September to 5th October 2016 and collected a total of 294 field numbers of specimens in duplicate. They also collected 8 species of Orchids and introduced at the National Orchidarium and Experimental Garden (NO&EG), Yercaud. Dr. Murugan determined 8 taxa belonging to the genera *Michelia*, *Photonia* and *Syzygium* at MH. Dr. S. Kaliamoorthy, Scientist 'D' and Dr. M.Y. Kamble, Scientist 'D' conducted an exploration tour to Silent Valley National Park, Kerala from 20th to 24th October 2016 for the collection of live plants and collected 44 species of orchids and 17 species of other angiosperms respectively. They also undertaken one day field trips to Shevaroy Temple and MALCO mines Yercaud, Tamil Nadu on 7th and 14th October 2016 respectively and collected a total of 65 species of plants including 44 orchids.



Photo: C. Murugan

**Shola Forest-Upper Manalar, Tamil Nadu**



Photo: S. Arumugam

**Collection at Pulichakadu, Cudalore, Tamil Nadu**

### Herbarium specimen identification

Dr. M. Palanisamy, Scientist 'D' and Sri S.K. Yadav, Bot. Asst. identified 56 field nos. of seaweeds collected from Karnataka coast and also gathered 7 important references related to study area. Dr. K.A.A. Kabeer, Scientist 'D' and Sri A. Ravi Kiran, Bot. Asst. identified 32 field nos. of the previous collection from Kodaikanal WLS, Tamil Nadu.



### Ex-situ conservation

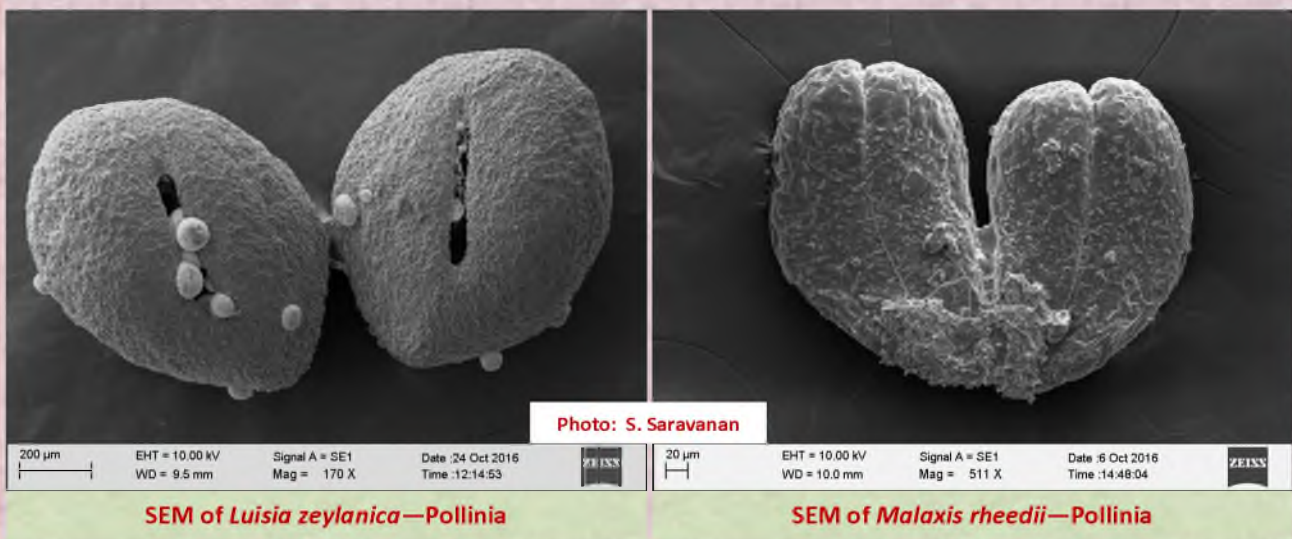
Dr. S. Kaliamoorthy and his team introduced a total of 73 plants including 44 species of Orchids at the National Orchidarium and Experimental Garden (NOEG), Yercaud. They also multiplied 38 samples of 9 species of endemic and ornamental orchids, 45 samples of 4 other angiosperms. Developed 73 seedlings belonging to 21 species, 46 cuttings of 3 species, transplanted 9 sample of *Crinum malabaricum* and *Barleria gibsonii*. Recorded the phenological data of 36 species, of which 27 are orchids.

### Digitisation of herbarium specimens

A total of 2830 herbarium sheets of MH were barcoded.

### Scanning Electron Microscopy (SEM)

Dr. G.V.S. Murthy, Scientist 'G' & HoO studied pollinia of 8 species of orchids with SEM and also captured 5 images of nutlets of 5 species of *Cyperus*. Dr. J.V. Sudhakar, Bot. Asst. taken 12 SEM images of achenes of four species of *Ficus*.



### Public service rendered

During this month, a total of 22 plants were identified for research scholars and students from various institutions.

Dr. J.H. Franklin Benjamin and Sri S.K. Yadav delivered lectures on 'Introduction to BS' and 'Seaweed Resources and Methodology for preparation of Seaweed Herbarium' respectively to 18 trainees of Indian Forest Genetics and Tree Breeding (IFGTB, ICFRE) Coimbatore, who visited SRC, Coimbatore on 06.10.2016.

Dr. Franklin also provided information on *Leucas* to Dr. Sunojkumar, Calicut University.





Dr. C. Murugan conducted a public viva-voce examination for awarding Ph.D. degree at St. Mary's College, Thotthukudi, Tamil Nadu on 07.10.2016.

Sri S.K. Yadav and Sri G.V. Rakesh undertaken classes on 'Madras Herbarium (MH) and Type concept and BSI introduction and Museum' to 58 PG students of Annamalai University, Tamil Nadu on 04.10.2016.

Sri S.K. Yadav, Dr. S. Arumugam and Sri A. Ravi Kiran delivered lectures on 'Concept and Methods of Herbarium, Floral Formula & Floral Diagram and Plant Identification methods' to PG students of the Dept. of Plant Genetic Resources of TNAU on 7th, 14th and 21st October 2016 respectively.

Dr. M. Palanisamy delivered an invited lecture on 'Seaweed Resources of India' at Biotechnology Department, Selvamm Arts and Science College, Namakkal on 21.10.2016.

Dr. J.V. Sudhakar provided 2 digital images of Dr. Janaki Ammal collections to CNH, Howrah.

Dr. S. Arumugam was selected as a board of study

member in the Department of Botany, Kongunadu Arts and Science College, Coimbatore.



Photo: SRC  
Dr. M. Palanisamy delivering invited lecture at Selvamm College, Namakkal, Tamil Nadu

### Meetings/programmes attended/conducted

Dr. G.V.S. Murthy, Scientist 'G' & HoO attended the XXXIX All India conference of the Indian Botanical Society & National Symposium on new approaches and recent challenges in Botany held at Ranchi University, Ranchi, Jharkhand from 21st to 23rd October 2016. He delivered a lecture on 'Relevance of Taxonomy and Revisionary studies on *Andrographis* Wall. ex Nees'. He was awarded Prof. Vishwambhar Puri Medal for the year 2016 for his contribution in Angiosperm Taxonomy.



Photo: SRC  
Dr. G.V.S. Murthy receiving Prof. Vishwambhar Puri Medal for his contribution in Angiosperm Taxonomy



Photo: S.K. Yadav  
Dr. G.V.S. Murthy addressing the students from Annamalai University, Chidambaram, Tamil Nadu

Dr. M. Palanisamy and Dr. K.A.A. Kabeer attended 5th Training Programme on Financial management in Scientific Organisations for Scientists & Technologists, held at Indian Institute of Public Administration, New Delhi from 3rd to 7th October 2016.

Sri S.K. Yadav attended an *International Seminar on Algal Biotechnology: An Ecofriendly solution for Food, Fuel and Health* held at St. Mary's College, Thoothukudi, Tamil Nadu on 14.10.2016.

M. Ananthalakshmi, Sr. Pres. Asst. attended the Ph.D. viva-voce of A. Pauldasan on thesis entitled, *Reproductive biology and inter-specific hybridization in 4 Casuarina sp.* at IFGTB, Coimbatore on 18.10.2016.

### Visitors/students

A total of 205 students / research scholars and 27 scientific personnels/officials from various institutions visited the museum, herbarium and library of this regional centre, whereas 1324 persons in 136 parties visited the NO&EG, Yercaud.



### Fumigation

The Herbarium, library, museum and store section of this centre was fumigated on 07.10.2016.

### Publications

Benjamin, Franklin J.H. 2016. Floristic Diversity of Sri Venkateswara National Park, Eastern Ghats. *EPTRI-ENVIS Newsletter: Eastern Ghats*. 22(1): 3. ISSN No: 0974-2336

Murugan, C., Benniamin, A., Prabhu, S., Sathiyaseelan, R. & Murugan, P. 2015 (2016).

*Pleocnemia* C. Presl (Dryopteridaceae) – A New Generic Record for Andaman and Nicobar Islands. *J. Andaman Sci. Assoc.* 20(2): 148–150.



Photo: S.K. Yadav

Fumigation of herbarium at Southern Regional Centre, Coimbatore

– Dr. G.V.S. Murthy  
Scientist 'G' & HoO

## WESTERN REGIONAL CENTRE, PUNE

Dr. C.R. Jadhav, Botanist conducted one exploration tour to Karnataka under the project 'Floristic survey of Someshwara Wildlife Sanctuary, Karnataka'. During the tour a total of 200 field numbers of specimens were collected and all the ranges of the sanctuary were surveyed.

Sri Devendra Tripathi, SPF conducted one tour to Kudremukh National Park, Karnataka for collection of Pteridophytes and collected about 250 specimens amounting to 86 field numbers.

### Specimen identification

Dr. Priyanka Ingle, Scientist 'B' and Shri Sameer C. Patil, Bot. Asst. identified 86 angiosperm species under the project, 'Floristic Diversity of Wan Wildlife Sanctuary' and 'Flora of Pushpagiri Wildlife Sanctuary, Karnataka' respectively. Dr. A. Benniamin, Scientist 'D' identified six pteridophyte species under the project, 'Ferns of Karnataka'. Dr. Rashmi Dubey, Scientist 'D' identified six fungal specimens under the project, 'Taxonomic Studies of Microfungi of Sanjay Gandhi National Park along with its 10% peripheral area'.

Smt. Shreya Sengupta, SPF identified four microfungi under the project 'Microfungi of BRT Wildlife Sanctuary, Karnataka'.

### Public service rendered

Dr. P. Lakshminarasimhan, Scientist 'E' & HoO reviewed Ph.D. thesis entitled, 'Floristic studies on Gadchiroli District' submitted by Sri Ravikiran S. Govekar to Dr. Babasaheb Ambedkar Marathwada University, Aurangabad and submitted the report .

Dr. P. Lakshminarasimhan reviewed two manuscripts for *Journal of Threatened Taxa*.

Dr. P. Lakshminarasimhan conducted the Ph.D. Viva-voce test of Sri S.S. Kulkarni in Department of Botany, Karnatak University, Dharwad as an external examiner on 20.10.2016 .

During this month six identification and authentication certificates were issued to students from B. Pharm, M. Pharm. colleges, Ph.D. and P.G. students from different institutions.

### Meetings /seminars /programmes/attended

Dr. P. Lakshminarasimhan attended the workshop on synergies among biodiversity related MEAs in Gurugram, Haryana on 3rd and 4th October 2016 organised by the CEBPOL, NBA and MoEF&CC.



Dr. P. Lakshminarasimhan attended the Eco-Sensitive Zone (ESZ) Expert Committee meeting on 05.10.2016 at MoEF&CC office, New Delhi.

Dr. P. Lakshminarasimhan delivered a talk on 'The Convention on Biological Diversity (CBD) for Botanists' in Department of Botany, Karnatak University, Dharwad on 20.10.2016.

Dr. P. Lakshminarasimhan attended the 12th meeting of the State Board for Wildlife of Maharashtra State at Mantralaya, Mumbai on 26.10.2016 held under the Chairmanship of Hon'ble Chief Minister of Maharashtra state.

Dr. P. Lakshminarasimhan attended the Ph.D. Committee Meeting of Botany, Calcutta University on 28.10.2016 in Botany Department in connection with presentation of 1000 words synopsis by Sri Akramul Hoque, who is registering for Ph.D. under the guidance of Dr. P. Lakshminarasimhan, Supervisor and Dr. Debabrata Maity (Joint Supervisor).

Dr. Rashmi Dubey, Scientist 'D' participated in a Training programme on 'Fungal diversity and modern trends in taxonomy through DNA Barcoding and Chemo profiling' organised by Division of Plant pathology, Indian Agriculture Research Institute, ICAR, New Delhi from 26th September to 16th October 2016.

Dr. Rashmi Dubey delivered a Lecture on 'Microfungi of India' in Division of Plant pathology, Indian Agriculture Research Institute, ICAR, New Delhi on 06.10.2016.

Dr. A. Benniamin, Dr. J. Jayanthi, Scientist 'D' and Dr. Priyanka Ingle attended a workshop on 'Biological Invasions' on 06.10.2016 organized by Biosphere NGO and Forest Department held at Van Bhavan, Pune. In this workshop Dr. J. Jayanthi briefed about the diversity of invasive alien plant species of Great Indian Bustard Sanctuary Maharashtra and BRT Wildlife Sanctuary, Karnataka.

Sri Sameer C. Patil, Bot. Asst., Sri D. Jesubalan, Bot. Asst. and Sri Alok Chorghe, PDF attended a 'Hands on Training cum Workshop on DNA Barcoding and Phytogenetics of Plants' (DBBP- 2016) at ARI, Pune during 17th October to 21st October 2016.

### Vigilance awareness pledge

Dr. P. Lakshminarasimhan administered the Vigilance Awareness Pledge to the officials of WRC, Pune on 31.10.2016.

### Visitors/students

About 14 students and 2 faculties from Abasaheb Garware College, Pune visited BSI on 25.10.2016.

Sri Hardik Shah, Research student from Ruia College, University of Mumbai visited BSI for herbarium consultation.

One research student from Savithibai Phule University of Pune visited BSI for consultation of *Crotalaria* species.



**Dr. P. Lakshminarasimhan administering the Vigilance awareness pledge to WRC officials, Pune**

### Publication

Lakshminarasimhan, P. and Jayanthi, J. 2016. Botanic gardens in the conservation of threatened trees of India. *Vanashobha* 2015-2016: 66–71.

**– Dr. P. Lakshminarasimhan**  
Scientist 'E' & HoO



## PLANT OF THE MONTH



*Duabanga grandiflora* (DC.) Walp. (LYTHRACEAE) commonly known as 'Duabanga' is native to East and Northeast India, Myanmar, Thailand, Cambodia, Laos, Vietnam and Malaysia. The genus name Duabanga was coined by Francis Hamilton from the vernacular name Duyabangga of Tripura state. It is a deciduous tree with tall mid stem and drooping branches, the wood is used for timber.

By Dr. B.K. Singh

वैदेश-देशी

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अमर उजाला

अंक 11  
मार्च 2016

## न्यूज डायरी

### 450 विद्यार्थियों ने लिया हिस्सा

नोएडा (ब्यूरो)। सेक्टर-37 स्थित बॉटनिक गार्डन ऑफ इंडिया रिपब्लिक (बॉटनिक गार्डन) में दो से आठ अक्टूबर तक वन्य जीव सप्ताह मनाया जा रहा है। बृहस्पतिवार को गार्डन में विभिन्न स्कूलों व कॉलेजों के 450 से ज्यादा विद्यार्थियों ने हिस्सा लिया। उन्हें पेड़ पौधों के बारे में जानकारी दी गई। इसके साथ ही भविष्य में वृक्षों की बढ़ती किस्म व भूमिका के बारे में भी बताया गया। कार्यक्रम के अंत में अस्मिता थिएटर ग्रुप के ने पर्यावरण के मुद्दे पर एक नुक्कड़ नाटक प्रस्तुत किया, जिसमें पेड़ों के महत्व को समझाया गया।



नुक्कड़ नाटक प्रस्तुत करते अस्मिता थिएटर ग्रुप के युवा।



BSI officials with participants of the Exhibition and Seminar on "J.D. Hooker: Botanical trailblazer and the Botanical Heritage of India" at ISIM, Kolkata held on 1st and 2nd October 2016

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