

# BSI NEWSLETTER

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**Botanical Survey of India**  
CGO Complex, 3<sup>rd</sup> MSO Building, Block – F  
5th Floor, DF Block, Sector – I, Salt Lake City  
Kolkata – 700 064



## HEAD QUARTERS, KOLKATA

Mr. Manoj Emanuel Hembrom, Botanist visited Degharia pahar, Deoghar district, Jharkhand from 16th to 18th April 2017 to assess the feasibility for development of Biodiversity park with the help of Jharkhand government MoEF & CC department. Correspondences were done with PCCF Jharkhand Ranchi for Logistic support.

Dr. R. K. Gupta, Scientist 'D' completed the study of the 'Algal Flora of Jharkhand' submitted the manuscript comprising 9 chapters and 80 plates for publication.

Mr. Arvind Parihar, Bot. Asst. submitted the project report, "Wood Rotting fungi of Koderma wildlife sanctuary, Koderma, Jharkhand".

For projects, Studies on Wild Mushrooms of Sikkim, Studies on the Macrofungi of AJC Bose Indian Botanical Garden, Wood rotting fungi of Rajmahal hills, Revision of the family Metzgeriaceae in India, Liverworts and Hornworts Flora of Darjeeling District, West Bengal, scientists of Cryptogamic unit identified the specimens and made illustrations camera lucida drawings and also taken micrographs.

### Public service rendered

Dr. A.B.D. Selvam, Scientist 'D' pharmacognostically studied and authenticated three plant samples (Batch-1 from Uttarakhand, Batch-2 from Chattisgarh and Batch-3 from West Bengal), as the seeds of *Trigonella foenum-graecum* (Papilionaceae), which were received from M/s Imami Ltd., Kolkata.

Dr. A.B.D. Selvam also pharmacognostically studied and authenticated aerial parts of *Ipomoea aquatica* (Convolvulaceae), which was received from Ms. Joyeeta Maiti, Department of Pharmaceutical Chemistry, NSHM College of Pharmaceutical Technology, Kolkata.

### Meeting attended

Mr. Manoj Emanuel Hembrom attended a meeting on EIA of Rabindra Sarobar in Najrul Manch, KIT, Kolkata along with Dr. Rajib Gogoi, Scientist 'D', CNH on 13.04.2017.

The scientists of Headquarters with working place at CNH building attended a lecture delivered by Sri Rajendra Singh, the Indian Waterman on "Water Conservation" at Committee room of CNH, BSI, Howrah on 19.04.2017.

Mr. Manoj Emanuel Hembrom also participated in Vanya Jeev Board Meeting at Project Building Ranchi, under the headship of Chief Minister of Jharkhand on 26.04.2017.

Dr. B.K. Sinha, Scientist 'F', Technical section in-charge was deputed to attend the IUCN Red List Assessor Training and Ebony Assessment Workshop at Royal Botanic Gardens, Peradeniya, Sri Lanka from 24th to 28th April 2017 .

### Publications

Buyck, B., Bernard Duhem, B., Das, K., Jayawardena, R. S., Niveiro, N., Pereira, O.L., Prasher, I.B., Adhikari, S., Alnwrto, E.O., Bulgakov, T.S., Castañeda-Rui, R.F., Hembrom, M.E., Hyde, K.D., Lewis, D.P., Michlig, A., Nuytinck, J., Parihar, A., Popoff, O.F., Ramire, N.A., Silva, M. Da, Verma R.K. and Hofstetter, V. 2017. Fungal Biodiversity Profiles 21-30. *Cryptogamie, Mycologie* 38(1): 101–146.

Ghosh, A., Das, K. and Bhatt, R.P. 2017. *Russula sarnarii* sp. nov. (Russulaceae, Basidiomycota) from Indian Himalaya. *Curr. Res. Environ. & Appl. Mycology* 7(1): 64–72.

Sinha, B.K., Singh, S.K., Kumar, R. and Panday, S. 2017. *Ex-situ* conservation of Orchids in Experimental Botanical Garden, Barapani and Woodland Campus, Shillong. In: P. Singh and S.S. Das (Eds.), *Indian Botanic Gardens - Role in Conservation*. Pp. 295–334.

## CENTRAL NATIONAL HERBARIUM, HOWRAH

In connection with the project Angiospermic flora of Neora Valley National Park, Darjeeling, West Bengal, Sri Anant Kumar and Dr. Gopal Krishna, Bot. Asst. along with two field staff conducted one field tour from 30th March to 15th April 2017 and collected 155 field numbers.

Dr. O.N. Maurya, Scientist 'C' along with Sri Shyam Biswa, Bot. Asst. conducted field tour from 14th to 19th April 2017 to explore the causes of soil erosion and sedimentation and to find out a solution for it in the Ganga basin areas of Malda and Farakka areas along with the 'Waterman of India', Sri Rajendra Singh. About 50 representative samples were collected from the designated sites.

### Herbarium identification

Dr. V.P. Prasad, Scientist 'D' corrected the identity of 10 specimens housed at CAL.

Dr. Vinay Ranjan, Scientist 'D', Dr. Gopal Krishna and Sri Anant Kumar identified 15 field numbers collected from Neora Valley National Park, Darjeeling district, West Bengal.

Dr. O.N. Maurya identified eight field numbers collected from Vikramshila Gangetic Dolphin Wildlife Sanctuary, Bhagalpur, Bihar.

Dr. Kumar Avinash Bharati, Scientist 'B' identified 14 species collected from Baraila lake Salim Ali Jubba Sahni Bird Sanctuary, Vaishali District, Bihar.

Sri P.P. Ghoshal, Botanist identified 12 field numbers collected from Betla National park, Latehar, Jharkhand.

Dr. Gopal Krishna identified 15 specimens collected from Bihar (Aurangabad, Nawada and Banka districts).

### Public Service rendered

CNH officials identified 50 plant specimens received from different universities and institutions such as Botany Department, LNM University, Darbhanga, Bihar; Department of Pharmacology, R.G. Kar medical College, Kolkata, West Bengal; Department of Pharmaceutical Sciences and Technology, Birla Institute of Technology, Mesra, Ranchi, Jharkhand; Department of Biotechnology, School of Life-Sciences, Sambalpur University, Jyoti Vihar, Burla, Odisha; Department of Physiology, University of Calcutta, Kolkata, West Bengal; Department of Pharmaceutical Chemistry, NSHM College of Pharmaceutical Technology, Kolkata, West Bengal.

Dr. P.V. Prasanna, Scientist 'F' & HoO reviewed a manuscript for *Bangladesh Journal of Plant taxonomy*.

Dr. V.P. Prasad evaluated one Ph.D. thesis received from University of Burdwan.

Dr. K. Karthigeyan, Scientist 'D' identified one species as *Berrya cordifolia* (Malvaceae) received from Dr. K. Gopalakrishna Bhat, Karnataka.

Dr. Subir Bandyopadhyay, Scientist 'B' provided PDF of 55 pages from *Bull. Bot. Soc. Bengal* 6: 1952; *Brittonia* 29: 1977 and *Candollea* 18: 1967 to Dr. M. Sanjappa, former Director, BSI, Bengaluru.

Dr. Bandyopadhyay also provided information regarding an author of plant name [K.M. Manudev] for incorporation in the Author Query database of IPNI.

Dr. Avishek Bhattacharjee, Scientist 'B' sent a list of the Wallichian specimens belonging to the genus *Flemingia* Roxb. ex W.T. Aiton deposited at CAL to Sandip Kisan Gavade, Junior Research Fellow, Department of Botany, Shivaji University, Kolhapur.

### Meetings/Seminar/conference attended

Dr. V. Sampath Kumar, Scientist 'D' attended the meeting regarding "Green Skill development" by the ENVIS centres at ISIM on 12.04.2017. The meeting was chaired by Dr. Anandi Subramaniam, Sr. Economic Advisor, MoEF & CC, attended by Directors of BSI and ZSI, senior officials of ZSI, Kolkata and Amit Vashista, Scientist 'C', MoEF & CC, New Delhi.

Dr. R. Gogoi, Scientist 'D' attended meeting on EIA of Rabindra Sarobar as Expert Committee member in Najrul Manch, KIT, Kolkata on 13.04.2017 in connection with NGT vide OA No.136/2016/EZ.

Dr. V. Sampath Kumar attended the workshop, “Herbarium technique and Plant Nomenclature” held at Ramakrishna Mission Vivekananda Centenary College, Rahara, Kolkata on 17.04.2017 and presented two lectures on “History of code of Botanical Nomenclature” and “Categories and Hierarchy”.

Dr. Subir Bandyopadhyay attended the workshop, “Herbarium technique and Plant Nomenclature” held at Ramakrishna Mission Vivekananda Centenary College, Rahara, Kolkata on 17.04.2017 and presented one lecture on “Typification of plant names”.

Dr. Gopal Krishna attended the workshop, “Herbarium technique and Plant Nomenclature” held at Ramakrishna Mission Vivekananda Centenary College, Rahara, Kolkata on 17.04.2017 and presented one lecture on “Herbarium Techniques” and demonstrated in practical session.

Dr. Avishek Bhattacharjee attended the workshop “Herbarium technique and Plant Nomenclature” held at Ramakrishna Mission Vivekananda Centenary College, Rahara, Kolkata on 18.04.2017 and presented two lectures on “Different kinds of names” and “Flora, Revision, Monograph”.

Dr. Pushpa Kumari, Scientist ‘D’ attended meeting with Principal Chief Conservator of Forests, Bihar and visited Gaya for development of Botanic Garden at Gaya on 26.04.2017 and 27.04.2017.

### Lecture delivered

Dr. Prasanna has given a presentation about research activities of CNH to the official from MoEF &CC on 03.04.2017.

Sri Rajendra Singh, popularly known as ‘Waterman of India’ on visit to Central National Herbarium, Howrah delivered a lecture on ‘Water Conservation’ in Committee Room of CNH on 19.04.2017. All CNH officials attended the programme actively.

A workshop on “Herbarium technique and Plant Nomenclature” in collaboration with Central National Herbarium, Howrah was conducted at Ramakrishna Mission Vivekananda Centenary College, Rahara, Kolkata from 17.04.2017 to 18.04.2017. CNH officials given lectures and training to the students of the college during the workshop.

### Visitors/students

Ms. Ranjini Dauve from Delhi on 03.04.2017.

Sri Shubhom Sunder from Lucknow on 10.04.2017.

Sri Tanmay Jana from office of the Scientific Audit, Nizam Palace, Kolkata on 13.04.2017.

52 B.Ed. students from Heritage College of Education, Bagnan, Howrah on 13.04.2017.

Sri Rajendra Singh from Rajasthan and Dr. Snehal S. Donde from Mumbai on 14.04.2017.

13 students of B. Sc. Botany (Hons.) from Ramsaday College, Amta, Howrah on 19.04.2017.

Dr. Ritesh Kumar Choudhary, Scientist, Biodiversity & Palaeobiology Group, Agarkhar Research Institute, Pune from 24.04.2017 to 27.04.2017.

Dr. Zhechen Qi, Asst. Professor, Lab of Systematic and Evolutionary Botany & Biodiversity, Zhejiang University, China from 24.04.2017 to 27.04.2017.

Dr. Pan Li, Asst. Prof. and Dr. Chengxin Fu, Professor from Zhejiang University, China from 25.04.2017 to 26.04.2017.

23 students of B. Sc. Botany Hons. from Jangipur College, Murshidabad on 26.04.2017.

6 students of B. Sc. Botany Hons. from New Alipore College, Kolkata on 26.04.2017.

Dr. T.K. Choudhary, Agarkhar Research Institute, Pune on 26.04.2017.

### Publications

Jana, B. and Sampath Kumar, V. 2017. A New Species of *Kobresia* (Cyperaceae) from Meghalaya, India. *J. Jpn. Bot.* 92(2): 94–98.

Hareesh, V.S., Joe, A., Gogoi, R. and Sabu, M. 2017. *Impatiens arunachalensis* (Balsaminaceae) a new species from north eastern India. *Phytotaxa* 305 (1): 47–51.

Kumar, A. and Ranjan, V. 2017. The Correct Author Citation of the combination *Parasenecio levingei* (Asteraceae-Senecioneae) and Typification of its Basionym. *J. Jpn. Bot.* 92(2): 109–111.

– Dr. P.V. Prasanna  
Scientist ‘F’ & HoO

# Glimpses of workshop on “Herbarium technique and Plant Nomenclature” held at Ramakrishna Mission Vivekananda Centenary College, Rahara, Kolkata

**Workshop on**  
**“HERBARIUM TECHNIQUES AND PLANT NOMENCLATURE”**

organized by  
 P.G. Department of Botany  
 Ramakrishna Mission Vivekananda Centenary College,  
 Rahara, Kolkata - 700118

**17<sup>th</sup> & 18<sup>th</sup> April, 2017**

in collaboration with  
 Central National Herbarium, Botanical Survey of India,  
 (Ministry of Environment, Forest and Climate Change, Govt. of India)  
 Howrah - 711003





## CENTRAL BOTANICAL LABORATORY, HOWRAH

Dr. K.A. Sujana, Scientist 'D' identified 12 tree specimens collected from Andaman and Nicobar Islands and documented field data of 22 endemic trees of India. Sri A.C. Halder, Botanist and Sri P.K. Baske, Botanist, identified 30 plant species collected from Baudh and 32 plants from Nayagargh district of Odisha. Dr. Monika Mishra studied vegetative and reproductive characters of *Trema orientalis* (L.) Blume (Cannabaceae) and counted chromosome number ( $2n=40$ ). Ms Sagari Chaudhury, SPF analysed quantitatively estimated carbohydrate and vitamins in six wild edible plants. Dr. Harish Singh, Scientist 'D' & HoO and Dr. K.A. Sujana finalized, compiled and submitted Ethnobotanical studies of Nuapada and Malkangiri districts of Odisha respectively.



*Hopea ponga* (Gentianaceae)



*Memecylon rivulare* (Melastomataceae)



*Syzygium lanceolatum* (Myrtaceae)



*Trema orientalis* (Cannabaceae)

### Public service rendered

Dr. K.A. Sujana reviewed an article for *Nelumbo*.

### Visitors/students visited

13 students and one teacher from Manipur University, Manipur; 13 students and two teachers from Pingla Thana Mahavidyalaya, Paschim Medinipur, West Bengal; 72 students and three teachers from Ramsaday College, Howrah, West Bengal; 42 students and two teachers from RKMVC College, Kolkata and Veenu Khanna from Hindi Rajbansh, Kolkata were visited ethnobotanical museum at CBL, Howrah.

### Publication

Chaudhury, S., Singh, H., Bharti, K.A. 2017. Quantitative analyses on ethnogynecological remedies used by Lodhas of Paschim Medinipur district, West Bengal, India. *Indian J. Traditional Knowledge* 16(2): 325–332.

– Dr. K.A. Sujana  
Scientist 'D' I/C

## INDUSTRIAL SECTION INDIAN MUSEUM, KOLKATA

As a part of preparing a database of herbarium specimens at BSIS, 100 numbers of Dicot herbarium specimens were listed and documented.

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

More than 500 numbers of Digitized Herbarium specimen metadata were updated with valid botanical names, basionyms/synonyms etc.

### Public service rendered

Under the Narcotic Drugs & Psychotropic Substances (NDPS) Act, three samples received from West Bengal Police were identified.



Sri A.K. Pateshwary, Director, CS Division, MoEF&CC, New Delhi at ISIM building



School students from Dum Dum Kishore Bharati High School at J.D. Hooker exhibition



Dr. Pan Li and Dr. Cen Zechn from Zhejiang University, China at exhibition on J.D. Hooker



Dr. Rachel Wynberg, University of Capetown, South Africa at J.D. Hooker Exhibition

### Visit made

Dr. Anandi Subramanian, Senior Economic Advisor, MoEF & CC, New Delhi visited Botanical Gallery and J.D. Hooker's Exhibition at ISIM on 12.04.2017. The visit was followed by a meeting with Directors, BSI & ZSI and other officials and ENVIS Coordinators at ISIM. Dr A.K. Sahoo, Scientist 'D', Smt. Sudeshna Datta and Shri B.C. Dey, Sr. Prev. Asst. arranged for group of Dum Dum Kishore Bharati High School student for visit of Botanical Gallery & Exhibition on 'Joseph Dalton Hooker: Botanical Trailblazer and the Botanical Heritage of India'; a collaborative scientific exhibition programme of CWEH, University of Sussex, UK with BSI on 22.04.2017. Prof. Chengxin Fu, Dr. Pan Li and Dr. Cen Zechn from Zhejiang University, China and Dr. Rachel Wynberg, University of Cape town, South Africa visited Botanical Gallery and J.D. Hooker's Exhibition at ISIM on 27th and 28th April 2017 respectively. Sri A.K. Pateshwary, Director, CS Division, MoEF & CC, New Delhi visited ISIM for review meeting on the implementation of NBCC project and renovation task of ISIM building including Botanical Gallery and Botanical History Gallery in the presence of Director, BSI and officials of the NBCC on 28.04.2017.

– Dr. Manas Bhaumik  
Scientist 'D' & HoO



Dr. Anandi Subramanian, Senior Economic Advisor,  
MoEF & CC, New Delhi at ISIM, Kolkata



## ANDAMAN & NICOBAR REGIONAL CENTRE, PORT BLAIR

Dr. C.P. Vivek, Bot. Asst. identified 20 herbarium specimens.

Sri Gautam Anuj Ekka, Presv. Asst. identified 10 herbarium specimens.

### Digitization of herbarium specimens

**Herbarium sheets Scanned:** 34 numbers of the family Myristicaceae.

**Herbarium details computerized in EXCEL format:** 666 herbarium specimens of families Aristolochiaceae, Cassythaceae, Hernandiaceae, Lauraceae, Myristicaceae, Monimiaceae, and Piperaceae were fed in the computer in a prescribed format.

**Accession of herbarium sheets:** 283 numbers.

**Indexing of herbarium sheets:** 1529 numbers

### Meeting/workshop attended

Dr. Lal Ji Singh, Scientist 'D' & HoO and Dr. Sanjay Mishra, Scientist 'B' attended Joint Hindi Workshop organized by TOLIC at CIARI, Port Blair on 03.04.2017.

Dr. Singh attended Foundation Stone Laying Ceremony for Solar Power Plant inaugurated by Hon'ble Home Minister, Sri Raj Nath Singh in presence of Lt. Governor, A & N Islands, Prof. Jagdish Muhki and Chief Secretary, A & N Islands, Sri Anindo Majumdar at Mangultan, Port Blair on 07.04.2017.

Dr. Singh attended meeting pertaining to the study-visit of the Department related Parliamentary Standing Committee on Science & Technology, Environment & Forests to Andaman & Nicobar Islands at Parliament House, New Delhi on 20.04.2017.

Dr. Singh attended IUCN Red List Assessor Training and Ebony Assessment Workshop at Royal Botanic Garden, Peradeniya, Sri Lanka from 24th to 28th April 2017.

Photo: S. Goonatilake



Dr. Lal Ji Singh at IUCN Red List Assessor Training and Ebony Assessment Workshop held at Royal Botanic Garden, Peradeniya, Sri Lanka from 24th to 28th April 2017

### Visitors/students

Internal Audit of Accounts of BSI, ANRC (for the period of accounts 01.04.2015 to 31.03.2017) by Office of the PAO, Kolkata (Shri. Pradeep Kumar (AAO), Shri M. K. Sharma, Sr. Accountant and Shri Nand Lal Tiwari, Accountant) from 10th to 14th April 2017.

Sri S.K. Akhtar, AJCBIBG, Howrah along with 5 members visited herbarium and library on 06.04.2017.

Sri Mathura Prasad, Chief Engineer, APWD, along with 5 APWD engineers visited garden on 07.04.2017.

Photo: G.A. Ekka



Sri Mathura Prasad, Chief Engineer, APWD at garden, Dhanikhari, South Andaman

Inspection team from NMPB, New Delhi for visit to office and garden on 10.04.2017 and 11.04.2017.



Photo: C.P. Vivek

**Sri Mathura Prasad, Chief Engineer, APWD at garden, Dhanikhari, South Andaman**

Dr. Tao Chen, Shenzhen Fairy Lake Botanical Garden, China, consulted and visited herbarium, Library and Garden on 09.03.2017 and 10.03.2017.



Photo: G.A. Ekka

**Dr. Tao Chen, Shenzhen Fairy Lake Botanical Garden, China at Herbarium, ANRC, BSI, Port Blair**

Dr. Padam Kumar, Assistant Advisor (Botany), Dr. Pawan Kumar, Scientist-IV, Sri Ashok Kumar, Finance & Administrative Officer and Sri Praveen Kumar Wadhwa, Computer Operator, National Medicinal Plant Board visited office and garden on 10.04.2017 and 11.04.2017 respectively.



Photo: G.A. Ekka

**National Medicinal Plant Board team, New Delhi at garden, Dhanikhari, South Andaman**

Sri Pradeep Kumar (AAO), Sri M.K. Sharma, Sr. Accountant and Sri Nand Lal Tiwari, Accountant from Pay and Account Office (BSI/ZSI) Kolkata visited Garden on 11.04.2017.

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

## ARUNACHAL PRADESH REGIONAL CENTRE, ITANAGAR

Dr. Vineet Kumar Rawat, Scientist 'D' & HoO conducted one field tour to West Kameng district of Arunachal Pradesh from 31st March to 8th April 2017 and collected 200 field numbers in connection with Taxonomic study of family Polypodiaceae of North East India.

Dr. Manish K. Kandwal, Scientist 'D' identified 18 species and description prepared for 3 species in connection with Grass flora of Arunachal Pradesh.

Dr. Umesh Kumar L. Tiwari, Scientist 'B' identified 17 field numbers in connection with Flora of East Kameng district, Arunachal Pradesh.

Dr. Krishna Chowlu, Scientist 'B' identified and description prepared along with coloured photo plates for four species of Orchids, entered field data in thirty herbarium sheets and data entered in excel sheets for four species in connection with 'Red listing of orchids of Arunachal Pradesh as per IUCN criteria'.

Dr. Souravjyoti Borah, Botanist finalizing the manuscript of 'Flora of Lohit District and Flora of Kamlang WLS, Arunachal Pradesh'.

Sri B.B.T. Tham recorded phenological data for 6 species in BSI, APRC campus.

### Meetings attended

Dr. V.K. Rawat and Dr. M.K. Kandwal attended Biodiversity and Wildlife Board Meeting at Chief Minister Office, Itanagar on dated 11.04.2017.

Dr. V.K. Rawat and Dr. U.K. Tiwari met Deputy Commissioner (Itanagar Capital Complex), Additional Deputy Commissioner (Itanagar Judicial Complex) and Chief Executive Officer Land Management, Itanagar Capital Complex in connection with land matters of APRC, BSI, Itanagar.

– Dr. V.K. Rawat  
Scientist 'D' & HoO

## ARID ZONE REGIONAL CENTRE, JODHPUR

Identified 20 field numbers for Flora of Sariksa Tiger Reserve, Alwar Dist., Rajasthan by Dr. M.K. Singhadiya and Sri Ravi Prasad.

### Label writing

Completed label writing of 30 herbarium sheets for Flora of Navsari District, Gujarat.

### Plant conservation

Recorded phenological data for 48 plants species of desert botanic garden, AZRC, Jodhpur.

### Public service rendered

Identified *Parthenium hysterophorus* brought by Dr. Anita Rathore, College of Veterinary and Animal Science, Udaipur.

Sri Vinod Maina, Scientist 'D' & HoO tagged name plates of existing plants in official residence of Hon'ble Minister for MoEF & CC, Govt. of India.

### Meeting attended

Sri Vinod Maina attended 12th meeting of State Board for Wildlife at Gandinagar, Gujarat chaired by Honourable Chief Minister of Gujarat State.



*Lasiurus scindicus* (Poaceae)



*Cymbopogon jwarancusa* (Poaceae) in AZRC garden



*Prosopis cineraria* (Fabaceae) in fruiting condition at AZRC garden, Jodhpur

### Visitor

Sri Anoop Sharma and Sri Anant C. Choyal, AIIMS, Jodhpur visited this office for information about common plants of Jodhpur.

### Publication

Kumar S., Purohit, C.S. and Kulloli, R.N. 2017. Conservation of Threatened plants in Desert Botanical Garden, Jodhpur. In: P. Singh and S.S. Das (Eds.), *Indian Botanic Gardens—Role in Conservation*. Pp. 406–425.

Kumar, R., Rabha, N.N. and Sinha, B.K. 2017. Conservation of the Genus *Hedychium* in Experimental Botanic Garden, Eastern Regional Centre, Botanical Survey of India, Shillong. In: P. Singh and S.S. Das (Eds.), *Indian Botanic Gardens—Role in Conservation*. Pp. 380–394.

Purohit, C.S. and Kumar, R. 2017. Floristic Diversity of Sikkim and their Utilization: An Overview. *Ecology and Environment*. 124–152.

Purohit, C.S., Kumar, R., Maina, V. and Agarwala, D.K. 2017. Effect of Climate Change on the Phenological Behavior of Selected Orchid Species in Sikkim-Himalaya. *Ecology and Environment*. 108–113.

Sharma, S., Kholia, B. S., Kumar, R. and Kumar, A. 2017. Pteridophytic diversity in human-inhabited buffer zone of Murlen National Park, Mizoram, India. *Check List* 13(2): 1–8.

– Sri Vinod Maina  
Scientist 'D' & HoO

## CENTRAL REGIONAL CENTRE, ALLAHABAD

Dr. A.N. Shukla, Scientist 'B' conducted a field tour to Panna Biosphere Reserve from 6th to 8th April along with Dr. A.P. Tiwari, Presv. Asst. and taken 200 photographs.

### Herbarium identification

A total of 129 specimens were identified in to 61 species under the projects, 'Floristic Diversity of Bhoj Wetland, M.P.', 'Floristic Diversity of Chandraprabha Wildlife Sanctuary, U.P.', 'Floristic Diversity of Kishanpur Wildlife Sanctuary, Lakhimpur Kheri, U.P.' and 'Floristic Diversity of Parvati Aranga Wildlife sanctuary and adjoining Tikri forest area, Gonda, U.P.'

For project, 'Lichens of Rajasthan and Kutch Gujarat' 31 specimens were identified in to nine species.

Lichen specimens of 18 numbers collected from Pachmarhi Biosphere Reserve, Madhya Pradesh were identified in to 14 species.

Completed taxonomic description of 54 species for the projects, 'Flora of Chhattisgarh Vol. I', 12 species for 'Flora of Chandraprabha Wildlife Sanctuary, Chandauli, UP.', 10 species for 'Floristic Diversity of Parvati Aranga Wildlife Sanctuary and adjoining Tikri forest area, Gonda, U.P.' and 29 species for 'Flora of Chhattisgarh Vol. II'. Besides, 52 earlier collected specimens housed at BSA were also identified.



View of typical Dry Deciduous Forest, Panna Tiger Reserve, Vindhyan ranges, Madhya Pradesh

Photo: A.N. Shukla



*Butea monosperma* (Leguminosae)

Dr. A.N. Shukla recorded phenological data of 30 species from Associated Botanic Garden of this regional Centre.

### Meeting attended/lecture delivered

Dr. Arti Garg, Scientist 'D' attended meeting with the team of Scientists at Birbal Sahni Research Institute, Lucknow, on 11.04.2017, regarding the collaborative project on 'Studies of fossil and living plants with reference to the impact of climate change on flora of Gangetic Plains and Central India' and prepared a complete plan of work for the first quarter, April to July, 2017.

Dr. G.P. Sinha, Scientist 'E' & HoO along with Dr. Neelam Gautam, Scientist 'B' prepared a project proposal on Trees and Grasses of west forest division of Chhindwara and west forest division of Mandla, M.P. as per requirement of State Forest Department, Madhya Pradesh.

Dr. A.N. Shukla, Scientist 'B' conducted a field inspection tour to Narohill, Satna, Madhya Pradesh along with Dr. A.P. Tiwari, Bot. Asst. from 5th to 6th April 2017 towards physical verification of the area proposed to be developed as a Biodiversity Park by the Forest Department, Govt. of Madhya Pradesh.

Sri Vineet Kumar Singh and Dr. Nitisha Srivastava consulted herbarium for the specimens of family Ebenaceae and prepared a detailed informative list of 107 specimens under supervision of Dr. A.N. Shukla and sent to Dr. P. Lakshminarasimhan, Scientist 'E' and HoO, BSI, WRC, Pune in connection with IUCN Workshop on Ebenaceae in Sri Lanka.

### Identification services rendered

Dr. G.P. Sinha assisted by Research Scholars Dr. Pushpi Singh and Dr. Pooja Gupta identified 20 specimens collected from Himachal Pradesh under NMHS (MG) Project into 15 species and sent the report to NRC, BSI, Dehradun.

Sri Vineet Kumar Singh, Bot. Asst. authenticated a specimen as *Moringa oleifera* Lam. for a student of 2nd Year Pharmacognosy, School of Pharmaceutical Sciences, IFTM, University, Moradabad.

Dr. Nitisha Srivastava, Bot. Asst. authenticated 20 specimens received from National Center for Natural Resources, Pt. Ravishankar Shukla University, Raipur, Chattisgarh.

Dr. A.P. Tiwari, Presv. Asst. identified 44 specimens received from NCNR, PRSU, Bilaspur, Chhattisgarh.

### Publications

Gautam, N. and Singh, V. 2017. Jhaadi tal wetland - An abode for wild germplasm of monotypic genus *Euryale ferox* Salisb. in Kishanpur Wildlife sanctuary, Terai region, Uttar Pradesh, India. *Ann. Pl. Sciences* 6 (4): 1602–1603.

Ansari, A.A. and Singh, V. 2017. Plants growing in experimental garden, Botanical Survey of India, Central Regional Centre, Allahabad. In: P. Singh and S.S. Dash (Eds.), *Indian Botanical Gardens: Role in Conservation*. Botanical Survey of India, Kolkata, pp. 166–174.

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

## EASTERN REGIONAL CENTRE, SHILLONG

Two field tours were conducted: One field tour was conducted to West and Southwest Khasi hills from 4th to 11th April 2017 and collected 163 field numbers for Flora of West & Southwest Khasi hills district, Meghalaya with reference to the sacred groves by Dr. Chaya Deori, Scientist 'D' and Sri S.R. Talukdar, Bot. Asst.; another field tour was to Peren (Gaili Mountain) and Mon (Nyoyang Mountain and Pessao Mountain) districts of Nagaland from 11th April to 1st May 2017 and collected 355 field numbers by Dr. N. Odyuo, Scientist 'D' and Dr. D.K. Roy, Bot. Asst. for Flora of Eastern Nagaland (Mon, Tuensang, Kiphire & Longleng) by Dr. N. dyuo; Dr. R. Daimary, Bot. Asst. and Flora of Nagaland (Vol. 1 & 2). During this period identified 30 species and documented 35 species for Flora of Eastern Nagaland by Dr. N. Odyuo and Dr. R. Daimary for Flora of West & Southwest Khasi hills district, Meghalaya with reference to the sacred groves by Dr. Chaya Deori and Sri S.R. Talukdar and for Flora of Amchang Wildlife Sanctuary, Kamrup, Assam by Dr. A.A. Mao and Nandita Sarma, Sr. Presv. Asst., for Flora of Yangoupokpi Lokchao WLS, Manipur by Dr. A.A. Mao and Sri L.R. Meitei.

Bryoflora (Hepaticae & Anthocerotae) of Mizoram: Final manuscript submitted dealing with 289 taxa of liverworts and hornworts of Mizoram India and Consulted literature pertaining to study of genus *Riccia*. Identified 2 samples of *Riccia frostii* and *Riccia cavernosa* collected from Jharkhand by Dr. S.K. Singh, Scientist 'D' for Taxonomic Revision of genus Genus *Riccia* (Marchantiophyta) in India.

Recorded phenological data of flowering and fruiting of 54 plant species, viz., *Acmella paniculata* (Wall. ex DC), *Aesculus assamica* Griff., *Allamanda cathartica* L., *Alpinea malaccensis* (Burm.f.) Roscoe, *Areca triandra* Roxb. ex Buch.-Ham., *Artocarpus heterophyllus* Lam., *Artocarpus lacucha* Buch-Ham., *Arundina graminifolia* var. *graminifolia* D.Don, *Ascocentrum ampullaceum* (Roxb.), *Bauhinia variegata* L., *Berginia ciliata* (Haw.) Sternb., *Bougainvillea glabra* Choisy, *Callistemon citrinus* (Curtis) Skeels, *Caryota urens* L., *Cerasus cerasoides* (Buch.-Ham.) ex D. Don) S.Y. Sokolov, *Citrus medica* L., *Coelogyne corymbosa* Lindl., *Coelogyne punctulata* Lindl., *Coelogyne schultesii* S.K.Jain & S.Das, *Cunninghamia lanceolata* (Lamb.) Hook., *Curcuma angustifolia* Roxb., *Dendrobium aphyllum* (Roxb.), *Dendrobium chrysotoxum* Lindl., *Dendrobium densiflorum* Lindl., *Dendrobium fimbriatum* Hook., *Dendrobium jenkinsii* Wall. ex Lindl., *Dendrobium lituiflorum* Lindl., *Dendrobium nobile* Lindl., *Dendrobium ochreatum* Lindl., *Dracaena angustifolia* (Medik.) Roxb., *Elaeocarpus floribundus* Blume, *Epiposium roseum* (D.Don) Lindl., *Eria lasiopetala* (Wild) Ormerod, *Eria muscicola* Lindl., *Erythrina arborescens* Roxb., *Eurya acuminata* DC., *Gmelina arborea* Roxb., *Gnetum gnemon* L., *Goodyera procera* (Ker-Gawl.) Hook., *Hibiscus rosa-sinensis* L., *Iris latifolia* (Mill.) Voss, *Kaempferia rotunda* L., *Melastoma malabathricum* Linn., *Micromelum integerrimum* (Buch.-Ham. ex Candolle) Wight & Arnott ex M. Roemer, *Ocotea lancifolia* (Schott) Mez, *Papilionanthe teres* (Roxb.) Schltr., *Phaius tancarvilleae* (L'Her.) Blume, *Pholidota convallariae* Hook.f., *Renanthera imschootiana* Rolfe, *Rhyncostylis retusa* (L.) Bl., *Schima wallichii* Choisy, *Syzygium jambos* L.(Alston), *Syzygium tetragonum* (Wight) Wall. Ex Walp., *Wendlandia wallichii* Wight & Arn and *Zanthoxylum acanthopodium* DC for 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, Scientist 'B' and Sri L.R. Meitei, Bot. Asst.

Approximately 1000 seedlings of *Cymbidium tigrinum*, were transferred from lab to land, Seed germination experiment of *Illex khasiana*, Data analyze, interpretation, literature survey for *Armadorum senapatianum*, *Cymbidium tigrinum*, Subcultured *Armadorum senapatianum*, *Nepenthes*, callus of *Cymbidium tigrinum* for the project Micro-propagation of RET Plants of Northeast India by Dr. A. A. Mao and L. Ibemhal Chanu, Bot. Asstt.

Under Micropropagation, Phytochemical Screening of Medicinal Plants and Molecular Characterization of Selected Species by Dr. Deepu Vijayan, Scientist 'B', Well rooted *in vitro* raised plants of *Pyrenaria khasiana* was transferred to green house for acclimatization (10 numbers). Subcultured *in vitro* raised *Pyrenaria*

*khasiana* on Woody Plant Medium supplemented with different growth regulators. Seven fungi were isolated, photo documented, identified as *Periconia* sp., *Botrytis cineria*, *Coremiella cubispora*, *Agarwalo mycesindicus*, *Minimedusa* sp. Three fungal cultures were incorporated in culture collection namely *Epicoccum nigrum* Link, *Myrothecium* sp., *Virgatospora* sp.

Deposited four sequences in 'genbank' and received deposition numbers *Argoperico niaindirae* ITS: KY977981, LSU: KY977982 and *Pseudoxylomyces elegans* ITS: KY977978, LSU: KY977983 under Taxonomy, phylogeny and ex-situ conservation of Micro-fungal diversity from Northeast India with special emphasis on fungi associated with endemic and threatened plants of Meghalaya by Dr. Ashish Venkatesh, Scientist 'B'.

#### Lecture delivered

Dr. A.A. Mao delivered a lecture on "Important Medicinal Plants of North East India" on "World Homoeopathy Day" organised by North Eastern Institute of Ayurveda & Homoeopathy (NEIAH), Shillong on 10.04.2017

#### Public service rendered

Identified about five samples of specimens received from various institutions.

#### Visitors/students

Three lecturers, two research scholars, 52 students and five other visitors from various Institutions, Colleges and Universities visited the Regional Centre.

#### Publications

Prabhugaonkar, A. and Pratibha, J. 2017. New record of *Trichoglossum sumrasum* from Asia. *Mycosphere* 8(4): 583–591. Doi 10.5943/Mycosphere/8/4/7.

Roy D.K, Odyuo, N. and Averyanov, Leonid V. 2017. *Tupistra ashiohi* (Asparagaceae), a new species from north-eastern India. *Phytotaxa* 305(1): 52–56.

– Dr. A.A. Mao  
Scientist 'F' & HoO

## SOUTHERN REGIONAL CENTRE, COIMBATORE

Sri A. Ravi Kiran, Bot. Asst. conducted a field tour to Kodaikanal WLS, Tamil Nadu from 3rd to 13th April 2017 and vouched 98 field numbers. They also collected 2 orchids namely *Trichoglottis tenera* (Lindl.) Rchb. f. (2 Plts.) and *Luisia trichorrhiza* (Hook.) Blume (2 Plts.) which were introduced into the National Orchidarium and Experimental Garden (NOEG), Yercaud. Besides, they identified 28 field numbers from previous collections. Dr. C. Murugan, Scientist 'D' & HoO, Dr. J.V. Sudhakar, Bot. Asst. and Dr. S. Arumugam, Bot. Asst. conducted an exploration tour to Kalakad Mundandurai Tiger Reserve (KMTR) and Tirunelveli district from 17th to 26th April 2017 for collection of Cyperaceae and vouched 120 field numbers.



Photo: J.V. Sudhakar

Collection of Cyperaceae specimens along Tamaraiparini river, Tirunelveli, Tamil Nadu



Photo: S. Arumugam

Collection of Cyperaceae specimens from Kalakad Mundandurai Tiger Reserve, Tamil Nadu





Photo: S. Arumugam

*Carex phacota* (Cyperaceae) from Agasthyamalai hills



*Carex myosurus* (Cyperaceae) from Agasthyamalai hills



Photo: A. Ravi Kiran

*Vanda testacea* (Orchidaceae)



*Trichoglottis tenera* (Orchidaceae)



Photo: A. Ravi Kiran

*Gastrochilus acaulis* (Orchidaceae)



*Leptodesmia congesta* (Fabaceae)

### Identification of Herbarium specimens

Dr. C. Murugan and Dr. S. Arumugam identified 49 field numbers of previous collections in connection with Floristic Assessment of Meghamalai WLS, Tamil Nadu. Dr. J.H. Franklin Benjamin, Scientist 'C' and Sri Rakesh G. Vadhyar, Bot. Asst. identifies 54 field numbers from Kanniyakumari WLS, Tamil Nadu. Dr. M. Palanisamy, Scientist 'D' and Dr. S.K. Yadav, Bot. Asst. are involved in the newly initiated project, "Seaweeds Flora of Goa Coast, India" and collected 8 references from the study area. For the flora of Kerala, Dr. M.Y. Kamble, Scientist 'D' and Dr. T. Saravanan, Bot. Asst. completed description of 15 species under 11 genera and 6 families and are involved in the finalisation of the Manuscript for the families from Bromeliaceae to Burbaniaceae (excluding Dioscoreaceae and Amaryllidiaceae). Sri R.K. Singh, Botanist and Dr. S. Pradeesh, Bot. Asst. completed nomenclature for 50 species and database for 7 genera of the family Commelinaceae whereas Dr. J.V. Sudhakar and Ms. A. Anantha Lakshmi, Sr. Pres. Asst. completed descriptions of all the taxa belonging to the families Lemnaceae to Potamogetonaceae.

### Ex-situ conservation

Dr. S. Kaliamoorthy, Dr. M.Y. Kamble and their team introduced 3 orchids i.e. *Trichoglottis tenera* (Lindl.) Rchb. f., *Luisia trichorrhiza* (Hook.) Blume (collected from Kodaikanal WLS) and *Ledebouria revoluta* (L. f.) Jessop (collected from Nagaloor, Yercaud) at the National Orchidarium and Experimental Garden (NOEG), Yercaud. They also multiplied 189 samples belonging to 21 taxa, developed 73 cuttings and recorded the phenological data of 30 species including 20 orchids and 10 other angiosperms.

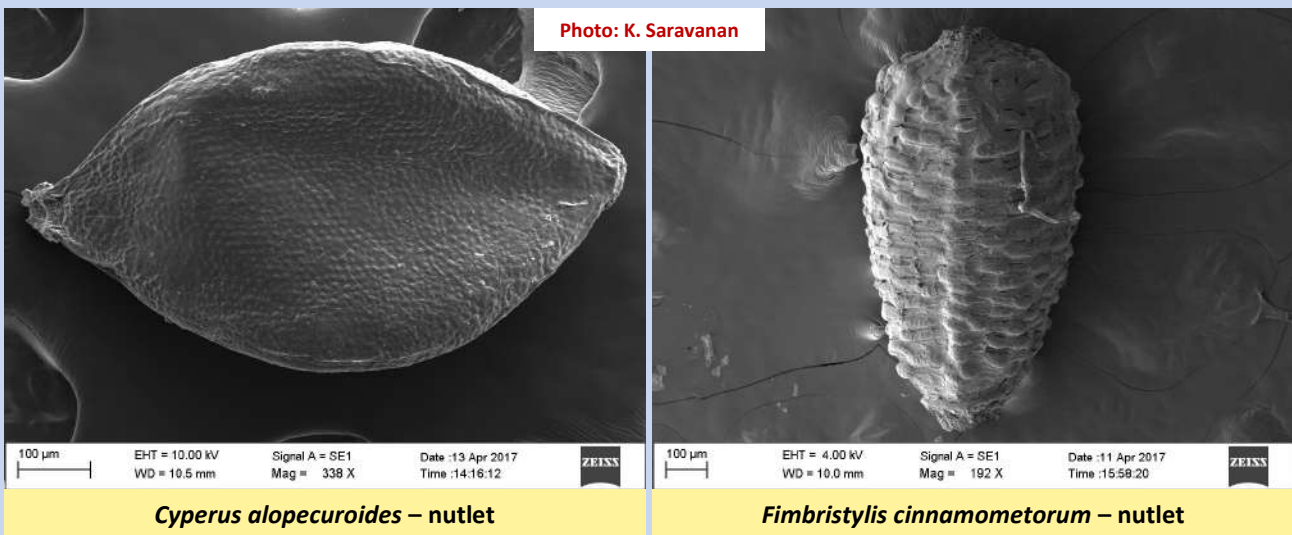
Dr. Kamble introduced seeds and seedlings of 18 endemic/ endangered tree species obtained from the Lead Botanical Garden, Shivaji University, Kolhapur, Maharashtra into the garden and multiplied 10 numbers of *Abutilon ranadei* Woodrow & Stapf and 20 numbers of *Bentinckia condapanna* Berry ex Roxb.

### Digitisation of Herbarium specimens

A total of 13,846 herbarium sheets were barcoded. One R. Wight collection of *Fimbristylis complanata* (Retz.) Link (Cyperaceae) segregated from general herbarium and deposited into the R.Wight herbarium. Data base of 420 herbarium sheets of the family Commelinaceae was completed.

### Scanning Electron Microscopy (SEM)

Dr. J.V. Sudhakar collected and prepared samples for 10 species of *Ficus* for SEM study and taken 52 images. Dr. Sudhakar along with Ms. Anantha Lakshmi, Sr. Pres. Asst. also collected nutlets from 15 species of the tribe Cyperae and Fimbristyledeae from South India for SEM study and 60 images.



Dr. T.S. Saravanan collected and preserved the flowers of *Zeuxine chowdheryi* Av. Bhattacharjee & Sabap.; *Epipogium roseum* (D. Don) Lindl. *Cheirostylis yunnanensis* Rolfe, *Zeuxine affinis* (Lindl.) Benth. ex J. D. Hook. and *Z. reflexa* King & Pantl. for SEM study.

### Public service rendered

71 plant specimens, including four seaweeds were identified for research scholars and students of various institutions.

Two digital images of *Cinnamomum chemungianum* Mohanan & Henry (Isotypes) were sent to Dr. Deepu Sivadas, National Post Doctoral Fellow, TBGRI, Thiruvananthapuram after receiving MoU form.

Dr. K.A.A. Kabeer, Scientist 'D' scrutinized the SACON lead garden proposal report.

Dr. S.K. Yadav and Sri Rakesh G. Vadhyar delivered lecture on BSI Overview, MH, Type concept, and Herbarium Methodology to 13 PG students of the Dept. of Environmental Sciences, TNAU on 07.04.2017.

### Meetings conducted

An internal Scientific and General meeting was held under the chairmanship of the HoO at BSI, SRC, Coimbatore on 13th April 2017 and various decisions were taken to improve the quality and output of the centre.



Photo: S.K. Yadav

Sri Rakesh G. Vadhyar explaining Herbarium methodology to PG students of TNAU



Photo: SRC

Dr. Petric Raja, St. Xavier's College, Tirunelveli observing the herbarium display in SRC museum

### Visitors/students

20 students/research scholars and 4 scientific personnel/officials visited the museum, herbarium and library of this regional centre whereas 1108 persons in 103 parties visited the NOEG, Yercaud.

Dr. D. Petric Raja, HoD, Dept. of Botany, St. Xavier's College, Palayankottai, Tirunelveli visited the centre.

Er. Rastogi, Chief Engineer and Er. Dung Dung, Superintending Engineer, Civil Construction Unit, MoEF&CC, New Delhi from 25th to 26th 2017 visited NoE and SRC office for inspection.

### Publications

Palanisamy, M., Kabeer, K.A.A. and Yadav, S.K. 2017. Has *Ensete superbum* (Roxb.) Cheesman, widened its habitat as an epiphyte?. In: Dr. P. Sreevani (Ed.), National Seminar - *Green Wealth For Global Health*, pp. 202–203. Paramount Publishing House, New Delhi, Hyderabad. ISBN: 978-93-85101-47-2.

Singh, R.K. 2017. *Gnaphalium penguense*, a new name for *Gnaphalium flaccidum* (Asteraceae: Gnaphalieae). *Kew Bull.* 72(1): 14 (<https://doi.org/10.1007/s12225-017-9694-5>).

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

## WESTERN REGIONAL CENTRE, PUNE

Dr. Jeewan Singh Jalal, Scientist 'D' conducted one Herbarium consultation tour to Blatter Herbarium, St. Xavier's College, Mumbai during this month.

Sri D. Jesubalan, Bot. Asst. undertook one Herbarium consultation tour to Mahatma Gandhi Memorial College, Udupi.

### Herbarium specimen identification

Dr. Jeewan Singh Jalal identified 35 specimens from Goa for project, "Assessment of Orchid diversity of Central Western Ghats: Goa".

Dr. Priyanka Ingle, Scientist 'B' identified 10 specimens for the project, "Floristic diversity of Wan Wildlife Sanctuary, Maharashtra".

Sri S.C. Patil, Bot. Asst. identified eight species of plants for the project, "Flora of Pushpagiri Wildlife Sanctuary, Karnataka".

Dr. A. Benniamin, Scientist 'D' identified five Pteridophyte species collected from Karnataka and also studied the spore morphology of three Pteridophyte species under Scanning Electron Microscope (SEM) for the project, "Ferns of Karnataka".

Sri D. Jesubalan identified four Pteridophyte species for the project, "Pteridophytic flora of Pushpagiri Wildlife Sanctuary, Karnataka with 10% periphery".

Photo: A.M. Neelima



*Costus pictus* (Costaceae) in WRC Garden, Pune



*Eulophia spectabilis* (Orchidaceae) in WRC Garden, Pune

Sri D. Tripathi, SPF identified four Pteridophyte species for the project, "Pteridophyte flora of Kudremukh National Park, Karnataka with 10% periphery".

Dr. S. Bhakta, Bot. Asst. identified eight species of algal samples for the project, "Biodiversity assessment of microalgae from thermal springs of Maharashtra".

Dr. Rashmi Dubey, Scientist 'D' processed two litter samples and three soil samples for the project, "Taxonomic Studies of Microfungi of Sanjay Gandhi National Park along with its 10% peripheral area".

Smt. Shreya Sengupta, SPF examined 89 slides of micro fungi for the project, "Microfungi of Biligiri Rangaswamy Temple wildlife Sanctuary, Karnataka".

#### **Public service rendered**

During this month 21 plant species identified and issued authentication certificates to students from B. Pharm, M. Pharm. colleges, Ph.D. and P.G. students from different institutions.

#### **Meetings /seminars /programmes/attended**

Dr. P. Lakshminarasimhan, Scientist 'E' & HoO along with other scientists attended a meeting with GREEN THUMB at WRC, BSI, Pune on 12.04.2017.

Dr. A. Benniamin, Dr. J. Jayanthi, Scientist 'D', Dr. C.R. Jadhav, Botanist, Sri. S.C. Patil, Bot. Asst., Sri Jesubalan, Sri Devendra Tripathi and Mrs. Shreya Sengupta, SPF attended a Review meeting at the Principal Chief Conservator of Forests Office, Aranya Bhavan, Bangalore on 21.04.2017 and made a power point presentation before the Committee members with respect to their ongoing projects in Karnataka.

Dr. P. Lakshminarasimhan, Dr. A. Benniamin and Dr. C.R. Jadhav attended Maharashtra Vrukha Samberjini Memorial Lecture at S.P. Museum on 23.04.2017.



**Dr. P. Lakshminarasimhan at IUCN Red List Assessor Training and Ebony Assessment Workshop**

**Dr. P. Lakshminarasimhan receiving certificate from Dr. George E. Schatz, Curator, Missouri Botanical Garden**

Dr. B.K. Sinha, Scientist 'F', Hqrs., BSI, Kolkata; Dr. P. Lakshminarasimhan, Scientist 'E', WRC, Pune; Dr. Lal Ji Singh, Scientist 'D', ANRC, Port Blair and Dr. D.K. Agrawala, Scientist 'D', SHRC, Gangtok were deputed to attend the IUCN Red List Assessor Training and Ebony Assessment Workshop at Royal Botanic Gardens, Peradeniya, Sri Lanka from 24th–28th April 2017. This workshop was organised by IUCN Sri Lanka Office in collaboration with Biodiversity Secretariat of Ministry of Mahaweli Development and Environment, National Institute of Fundamental Studies and Royal Botanic Gardens, Peradeniya. It was funded by Missouri Botanical Garden and Foundation Franklinia. The Key Resource person was Dr. George E. Schatz, Curator, Missouri Botanical Garden, USA.

#### Visitors/students

Sri Sujit Sil from University of Burdwan for herbarium consultation of *Saraca* species visited WRC herbarium.

Dr. E.R. Nayar from NBPCR, New Delhi for herbarium consultation of *Vigna* species visited WRC herbarium.

Dr. A.S. Limaye from Wadia College, Pune and Dr. M.C. Mahajan from Fergusson College, Pune for herbarium consultation of family Leguminosae: Caesalpinoideae visited WRC herbarium.

Sri Cheng Xin Fu and Sri Zhenchen Qe from Zhejiang University, China visited WRC herbarium for consultation of Lamiaceae and Scrophulariaceae respectively.

#### Publications

Benniamin, A. and Sundari M.S. 2017. Natural apospory in *Pteris aspercaulis* wall. ex. J. Agardh from North Eastern India, *Indian Forest*. 143(2): 187–188.

Sahu, E., Giri, D., Bhakta, S., Panda, S. and Bastia, A.K. 2017. Phytochemical screening of a corticolous cyanobacterium *Hassalia byssoidea* Hass. ex Born. et Flah. for antibacterial and antioxidant activity. *World J. Pharm. Pharm. Sci.* 6(3): 1161–1172.

Rashmi D. 2017. *Periconia chandoliensis* - A new microfungus from Western Ghats of India. *J. Mycopathol, Res.* 55(1): 101–104.

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

### PROMOTIONS

Dr. Devendra Singh, Dr. L. Rasingam and Dr. D.K. Agarwala have been promoted from Scientist 'C' to Scientist 'D' and Dr. Depu Vijayan has been promoted from Scientist 'B' to Scientist 'C'.

### TRANSFERS

Dr. B.S. Kholia, Scientist 'D' deployed at BGIR, Noida from NRC, Dehradun; Dr. Sheo Kumar, Scientist 'E' AJCBIBG (deployed at BGIR, Noida) transferred to CRC, Allahabad; Dr. Manikandan, Scientist 'D' transferred from NRC, Dehradun to SRC, Coimbatore; Dr. M. Sankar Rao, Scientist 'B' transferred from SHRC, Gangtok to DRC, Hyderabad.



**Gustavia augusta** L. (Lecythidaceae), commonly known as Majestic Heaven Lotus, small tree with delicate fragrant flowers. Native to South America, cultivated in Botanical gardens as ornamental tree. Its wood is used in building construction.

Photo: D.L. Sirodhkar



**Tupistra ashioi** (Asparagaceae) – a new species from Northeast India

Photo: S. Goonatilake



BSI Scientists at IUCN Red List Assessor Training and Ebony Assessment Workshop at Royal Botanic Gardens, Peradeniya, Sri Lanka from 24th–28th April 2017

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