



BSI NEWSLETTER

The monthly electronic newsletter of Botanical Survey of India

Director's column

Scientists of BSI have conducted field tours to various phyto-geographical regions of India in connection with their ongoing projects. These include plant specimen collection tours to Sacred Groves of Nellore district of Andhra Pradesh; to Wan Wildlife Sanctuary in Maharashtra; ethnobotanical collection tour to Malkangiri district of Odisha. For collection of aquatic plant litter, plant leaf and twig litter tour to Ri-Bhoi and Jaintia Hills districts of Meghalaya were conducted and isolated 15 fungi. During these collection tours, the scientists collected some RET plants and introduced in the Botanical Gardens attached to their regional centres for *ex-situ* conservation. For the proposed Silahalla Hydro-electricity project, Tamil Nadu the scientific officials of SRC conducted field survey in the proposed site in Nilgiris, Southern Western Ghats and submitted the preliminary report on Environmental Impact Assessment.

The scientists of BSI reported the orchid species *Coelogyne calcicola* as new record to India, and *Oberonia pumilio* as new record to Meghalaya state, the orchid genus *Papilionanthe* as new record to Chhattisgarh state. Besides these, the genus *Aira* (Poaceae) is reported as new generic record to Nicobar Islands and the legume species *Smithia setulosa* as new record to Central India. Two wild mushrooms, *Bovista nigrescens*, *Pulveroboletus auriflammeus* recorded as new to Indian mycobiota from Himalayas of Sikkim and Uttarakhand respectively.

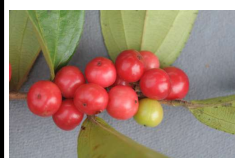
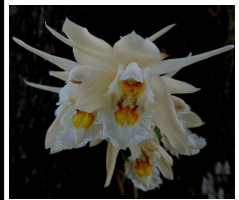
Dr. (Mrs.) Amita Prasad, IAS, Addl. Secretary, MoEF & CC visited AJC Bose Indian Botanic Garden and Central National Herbarium on 1st July 2016 and reviewed overall progress of the scientific projects and administrative related issues of the organization.

The DDOs of various units/regional centres of BSI have undergone PFMS training for learning online submission of bills and payments.

Jai Hind!

Paramjit Singh

Director, Botanical Survey of India, Kolkata



HEAD QUARTERS, KOLKATA

Dr. R.K. Gupta, Scientist 'D' identified and described 6 taxa of green algae viz., *Cylindrocystis brebissonii*, *C. brebissonii* var. *jenneri*, *Mesotaenium caldariorum*, *Netrium digitus*, *Cymbella tumida*, and *Caloneis amphishaena* in connection with Algal Flora of Jharkhand. Dr. Gupta also has taken microphotographs of 38 Jharkhand algae particularly of Desmids.

Dr. Kanad Das, Scientist 'D' identified *Laccaria amethystine* (Hydnangiaceae) and Dr. K. Das, Sri Manoj Emanuel Hembrom, Botanist and Sri Arvind Parihar, Bot. Asst. identified *Leucocoprinus cepistipes* (Agaricaceae), *Ganoderma philippii*, *G. stipitatum* (Ganodermataceae) and *Macrocybe gigantea* (Tricholomataceae) in connection with the projects, 'Studies on wild mushrooms of Sikkim' and 'Studies on the macrofungi of AJCBIBG'. Sri Hembrom identified *Skeletocutis alutacea* (Polyporaceae), *Subulicystidium longisporum* (Hydnodontaceae), *Fuscoporia contigua* (Hymenochaetaceae), *Rhodofomitopsis feei* (Fomitopsidaceae), and *Laxitextum incrustatum* (Hericiaceae) for the project, 'Wood rotting fungi of Rajmahal hills'.

Dr. Devendra Singh, Scientist 'C' prepared the camera lucida illustrations and taken microphotographs of *Metzgeria mitrata* in connection with the 'Revision of the family Metzgeriaceae in India'. Dr. Singh also prepared the camera lucida illustrations and taken microphotographs of *Guembelia longirostris* collected from Larsemann Hills, East Antarctica. He also identified twelve (12) specimens belonging to seven species of liverworts and mosses collected from Larsemann Hills, East Antarctica and unidentified backlog specimens deposited in CAL herbarium: *Apometzgeria pubescens*, *Metzgeria conjugata*, *M. lindbergii*, *M. mitrata*, *Cephaloziella varians*, *Coscinodon lawianus*, and *Guembelia longirostris*.

Dr. (Ms.) Monalisa Dey, Scientist 'B' identified *Frullania nepalensis*, *F. yuennanensis*, *Lejeunea tuberculosa*, *Lopholejeunea subfusca*, and *Trocholejeunea infuscata* from the unidentified specimens of Darjeeling District, West Bengal deposited in CAL. Dr. Dey studied and photographed the specimens obtained on loan from Friedrich-Schiller-Universität Jena, Germany (JE): *Strepsilejeunea ocellata* - JE04002961 (Holotype), *Drepanolejeunea ternatensis* var. *lancispina* - JE04002965 (Syntype). Dr. Dey also studied the following species of *Drepanolejeunea* through Scanning Electron Microscope: *D. devendrae*, *D. laciniata*, *D. pentadactyla* and *D. spicata*.

In connection with the 'Pharmacognosy of Indian Cycads', Dr. A.B.D. Selvam, Scientist 'D' completed anatomical studies on the leaflets of *Cycas circinalis*.

Training attended

Sri Manoj Emanuel Hembrom has attended PFMS software training imparted by Pay & Accounts (BSI & ZSI, Kolkata) officials.

Public service rendered

Dr. Kanad Das reviewed two manuscripts, one for *Phytotaxa* and the other for *Sydowia*.

Dr. A.B.D. Selvam pharmacognostically studied heartwood and authenticated the representative wood samples as *Pterocarpus santalinus* (Fabaceae), which were received from Deputy Commissioner of Customs, Special Intelligence and Investigation Branch (Export), Mumbai.

Publication

Das, K., Semwal, K.C. and Chakraborty, D. 2016. Two new records of Himalayan wild mushrooms for Indian mycobiota. *Kavaka* 46: 14–17.

AJC BOSE INDIAN BOTANIC GARDEN, HOWRAH

Dr. S.S. Hameed, Scientist 'D' planted 4 seedlings of Rare, Endangered and Threatened palms inside the Large Palm House.

Vanamahotsav celebrations

Vanamahotsav 2016 was celebrated on 08.07.2016 with a series of programmes including mass plantation by the VIPs and dignitaries and rally by student participants. T-shirts with MoEF & CC and BSI logos were distributed to all the participants. Prizes were given to the successful participants of Sit & Draw competition held on 05.06.2016. Complementary prizes were also given to all other participants.

Garden Maintenance/Management

Plantation of summer annuals like *Kochia*, *Giillardia*, *Cosmos*, and *Vinca* are carried out near the Bicentenary Gate under the beautification programme. Regular de-weeding in different divisions are being done.

The Great Banyan Tree developed 12 new prop roots and are encaged in bamboo cages. 16 encaged aerial roots were repaired. New support has been provided to heavy branches at 6 new places. New buffer fencing was erected around the Great Banyan tree.

Regular maintenance of the plant saplings collected during different tours are being done.

Public service rendered

Dr. A. Pramanik, Scientist 'E' & HoO acted as an external examiner for M.Sc. Practical Examination, Vidyasagar University, Midnapore on 23.06.2016.

Plant saplings were provided to the Officer-in-Charge, B. Garden Police Station, Dr. A.K. Pandey, Scientist 'G', Plant Chemist Section, FRI, Dehradun and Prof. S.R. Yadav, Shivaji University, Kolhapur.

Meetings attended

Dr. S.P. Panda, Scientist 'B' & DDO and other ministerial staff attended the training on PFMS given by Asst. Accounts Officer, PAO (BSI/ZSI), Kolkata on 09.07.2016.

Media coverage

A documentary on the Great Banyan Tree was telecast on the History TV channel under the series *OMG - Yeh Mera India*.

Hindustan Times dated 05.07.2016, *Ei Bela* dated 11.07.2016 covered the news of introduction of Giant Water Lily in the University Campus of Burdwan by Botanical Survey of India.

The Statesman dated 29.07.2016 covered the proposed recycling unit of leaf litter in the botanical garden.

Visitors

Dr. Amita Prasad, IAS, Addl. Secretary and Dr. R. Dalwani, Advisor and Sri A.K. Das, Deputy Secretary, MoEF & CC visited botanical garden on 01.07.2016. A field demonstration about the practical application of mobile App developed out of the GIS project was shown to them.

Sri Anand Eknath Rayate, IAS, Sri Abhimanyu R. Kale, CEO, Silla Panchayat Mandal, Pune, Maharashtra on 06.07.2016.

Sri Dilip Balakrishna Gawade, Commissioner, Ahmednagar Municipal Corporation, Maharashtra on 06.07.2016.

Dr. Venkatramana, Professor of Molecular Biology, Hyderabad University, Hyderabad on 29.07.2016.

– Dr. A. Pramanik
Scientist 'E' & HoO

Click for more Amazing Facts!

OMG! YEH MERA INDIA

Click for more Amazing Facts!

The Great Banyan Tree

Total area of tree - 4.67 acres
Height of tree - 24.5 mts
Age of tree - 250 yrs

With 3777 Prop roots

Click for more Amazing Facts!

The Great Banyan Tree

Total area of tree - 4.67 acres
Height of tree - 24.5 mts
Age of tree - 250 yrs

When the Botanic Garden was established in the year 1857, Acharya Jagadish Chandra Bose Indian Botanic Garden (IBG) was established in the year 1907.

Click for more Amazing Facts!

OMG! Yeh Mera India

24.5 mts

GATEWAY OF INDIA
Height - 26 mts

Which means, it's a little shorter than

Click for more Amazing Facts!

HAN TRUMP

Prop roots are the only that grow from twigs and stems



Burdwan University, BSI to conserve plants

MOHAMMAD ASIF | *hindustantimes.com*

BURDWAN Burdwan University has signed a MoU with Botanical Survey of India (BSI) to carry out research and academic activities to conserve biodiversity in the campus.

Under this project, several exotic species of saplings from Europe, Malaysia and Africa are being planted in the campus. The plants of various hues have found many admirers, who are turning up in droves to get a look. Sources said five saplings of Victoria Amazonica and Victoria Cruziana are now grown in Acharya Jagadish Chandra Bose Botanical Garden of Shibpur, Howrah. For over 150 years, native to the shallow waters of the Amazon river basin, while the latter is a species of Paramo-Pitanga basin.

Steps have been taken to conserve, document and promote the diversity across of biodiversity of 149 grown in the campus.

Sources said five saplings of Victoria Amazonica and Victoria Cruziana are now grown in Acharya Jagadish Chandra Bose Botanical Garden of Shibpur, Howrah. For over 150 years, native to the shallow waters of the Amazon river basin, while the latter is a species of Paramo-Pitanga basin.

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NADIA REMEMBERS NAXAL LEADER'S DEATH P14

DISHOOM IN CINEMA P6

The Statesman *DELHI AND HYDRABAD EDITION*

PRIVATE FIRM TO CLEAN UP BOTANICAL GARDEN
A unique initiative

SHIBPUR | *hindustantimes.com*

The author files at Botanical Garden have come up with a solution for the disposal of several sources of fallen leaves that make the garden untidy and also create the risk of people slipping on them, especially during the rainy season.

A private company has approached the officials with an offer to remove the fallen leaves and weeds from the 273 acres of the garden and recycle them into organic fertilisers that can be used for plants while the by-product will be utilised by them in producing electricity," said Dr Arvind Prasad, joint director of the Botanical Garden.

He said the equipment and manpower for recycling the fallen leaves and weeds will be provided by the company, while the Botanical garden will offer space to set up the machine and power to run it.

Sources said that the over-250-year-old garden suffers from severe manpower shortage. It has a paltry staff for garden maintenance as there's been no recruitment for the last several years.

"We are facing severe shortage of manpower. There are around 124 people for maintaining the garden as against 500 that we had a few years ago," said a senior official, who requested not to be named.

It is like shooting two birds with a single stone as the garden will be kept clean without utilising our own manpower and the fertiliser will be helpful for plants because the product will be organic in nature, which keeps the texture of the soil intact," said MU Sharif, scientist at the garden. "The overgrown weeds not only make premises dirty but also shelter venomous reptiles," he added.



Great Banyan Tree with its newly constructed buffer fence at AJCB Indian Botanic Garden, Howrah



Dr. Amita Prasad, IAS, Addl. Secretary, MoEF & CC, New Delhi at Great Banyan Tree

GLIMPSES OF VANAMAHOTSAV CELEBRATIONS



Photo: D.L. Shirodhkar

CENTRAL NATIONAL HERBARIUM, HOWRAH

In connection with SERB-Young Scientist project [Inventorization of Indian *Calanthe* R. Br. (Orchidaceae), with focus on micro-morphology of pollinia], Dr. Avishek Bhattacharjee, Scientist 'B' has undertaken a field tour to Kalimpong, Mongpoo and Dooars from 22nd to 30th July 2016.

Herbarium specimen identification

Dr. Vinay Ranjan, Scientist 'D' identified specimens of 3 field numbers collected from Nawada and Aurangabad districts, Bihar.

Dr. K. Karthigeyan, Scientist 'D' identified about 70 herbarium specimens collected from Jaldapara National Park.

Dr. O.N. Maurya, Scientist 'C' identified specimens of 7 field numbers collected from Vikramshila Gangetic Dolphin Wildlife sanctuary, Bhagalpur, Bihar.

Sri P.P. Ghoshal, Botanist identified 6 species collected from Betla National park, Latehar, Jharkhand.

Sri Gopal Krishna, Bot. Asst. identified specimens of 25 field numbers collected from Nawada & Aurangabad districts, Bihar.

Sri Vijay Mastakar, Bot. Asst. identified old herbarium sheets of *Cajanus cajan*, *Dalbergia stipulacea* and *Lathyrus sativus* of family Leguminosae in Hall 2.

Sri Anant Kumar, Bot. Asst. identified 2 specimens named *Vernonia attenuatus* and *Duchesnea indica*.

Scanning Electron Microscopy

A total of 39 plant specimens were scanned using SEM by Ms. Monalisa Dey (5 Bryophyte Spores & Thallus), Mrs. S. Shalini (6 *Argyrea* sp.- Pollen, Leaf, Seed), Dr. Sudipta Das (16 Diatoms) and Dr. Debjyoti Das (12 Diatoms).

Public Service rendered

Dr. P.V. Prasanna, Scientist 'F' & HoO functioned as external examiner at Calcutta University's Botany department in connection with M.Sc. IV semester exams and Ph.D. viva-voce examination of Sri Alok R. Chorgha at Andhra University, Vishakapatnam (Andhra Pradesh) on 21.07.2016.

Dr. V.P. Prasad, Scientist 'D' evaluated the Ph.D. Thesis received from the University of Calicut.

Dr. V. Sampath Kumar, Scientist 'D' reviewed three manuscripts, one for *Journal of Economic and Taxonomic Botany* and two for *American Journal of Plant Sciences*.

Dr. Sampath Kumar identified two labiatae specimens, *Scutellaria repens* and *Clinopodium umbrosum* for a B.Sc. student from Nabagram Hiralal Paul College, Nabagram, Hooghly Dist., West Bengal.

Dr. Sampath Kumar scanned and sent the pdf file of T.S. Mahabale paper on *Ophioglossum* published in *Bull. Bot. Surv. India* vol 4: 71-84. 1962 to Prof. Vatsavaya S. Raju, Plant Systematics Laboratory, Department of Botany, Kakatiya University, Warangal, Andhra Pradesh on request.

Dr. K. Karthigeyan identified two specimens viz., *Rhaphidophora* sp. and *Rhodea* sp. received from Dr. Pallab Kanti Haldar, Associate Professor, Jadavpur University, Kolkata and a specimen photograph of *Celtis philippensis* (Ulmaceae) received from Dr. P.V. Prasanna, HoO, CNH. Dr. Karthigeyan supplied one literature entitled, "Bremer K. 1979. Taxonomy of *Memecylon* (Melastomataceae) in Ceylon. *Opera Bot.* 50: 1-32" to Mr. Devanathan, Research Fellow, Madras Christian College on request. Dr. Karthigeyan also provided two type Images of *Arum cuspidatum* and *Arisaema kunstleri* to Dr. Manudev K. Madhavan, Calicut University, Kerala.

Dr. S. Bandyopadhyay, Scientist 'B' provided PDF of 19 pages from Network of Botanic Gardens and of 7 pages from *Bull. Bot. Surv. India* 25: 1983 on Indian Botanic Garden, Howrah to Prof. M.Y. Moham Ram and protologue of *Turraea villosa* to Dr. Manoj Lekhak, Shivaji University, Kolhapur, Maharashtra.

Dr. Bandyopadhyay reviewed a manuscript for the journal *Nelumbo* and made authorship correction for 13 names in Index Fungorum.

Dr. A. Bhattacharjee replied to a query of Dr. Madeleen Struwig, Department of Botany, University of Zululand, South Africa on the availability of specimens of *Celtis cercidifolia* at CAL. Dr. Bhattacharjee also reviewed a manuscript for *Journal of Threatened Taxa*.

Sri S. Biswa, Bot. Asst. identified 2 specimens, Sri Gopal Krishna, Bot. Asst. 1 specimen and Sri Vijay Mastakar, Bot. Asst. 1 specimen, from Bengal School of Technology, Hooghly, W.B.; Department of Microbiology, University of Kalyani, W.B. and CSIR, Indian Institute of Chemical Biology, Kolkata.

Meetings attended

All the scientists and scientific staff attended the meeting on 01.07.2016 in the committee room of CNH chaired by Dr Amita Prasad, Addl. Secretary, MoEF & CC. Flora of West Bengal III was released by Addl. Secretary, MoEF & CC on this occasion.

Dr. V. Ranjan and Sri Anand Kumar, Bot. Asst. attended meeting on 20.07.2016 with Sri Rajiv Ranjan, IFS, Member Secretary, Jharkhand Biodiversity Board, Ranchi, regarding finalization of project proposals.

Herbarium specimens digitized

A total of 270 type specimens have been scanned and documented in data center. The species were entered in register and 236 monocot type specimens and 34 dicot type specimens were sent to respective type sections.

Lecture delivered

Dr. Prasanna delivered a talk on establishment and activities of Botanical Survey of India at Andhra University, Vishakapatnam (Andhra Pradesh) on 21.07.2016.

Lecture organised

A lecture by Prof. S.R. Yadav, Dept. of Botany, Shivaji University, Kolhapur on *Aponogetons* and *Pancreatiums* of India on 05.07.2016 at CNH committee room.



Prof. S.R. Yadav giving lecture at CNH Committee room

Visitors

Dr. Amita Prasad, IAS, Additional Secretary, Dr. R. Dalwani, Advisor and Sri A.K. Das, Deputy Secretary, MoEF & CC, New Delhi on 01.07.2016. Prof. S. R. Yadav, Shivaji University, Kolhapur, Maharashtra on 04.07.2016. Mr. Usmangani Attar, JRF, Shivaji University, Kolhapur, Maharashtra on 10.07.2016. Mr. Sarang Bokil, JRF, Shivaji University, Kolhapur, Maharashtra on 10.07.2016. Ms. Moutushi Sen, JRF, University of Burdwan, West Bengal on 11.07.2016. Dr. Swarnendu Mondal, Assistant Professor, MUC Women's college, Burdwan, West Bengal on 19.07.2016. 10 students of M.Sc. Botany, Krishna Chandra College, Hetampur, Birbhum, West Bengal on 26.07.2016.

Publications

Bharati, K.A. 2016. Identification of Indian *Sida* through mericarp. *Pharmacog. J.* 8(5): 490–496.

Bhattacharjee, A. 2016. *Zeuxine rolfiana*. The IUCN Red List of Threatened Species 2016: e.T72010421A7201 0424. Downloaded on 30 June 2016.

Biswa, S., Lokho, A. and Lakshminarasimhan, P. 2016. Biodiversity of Koderma wildlife sanctuary, Jharkhand – Its threats and conservation. *The Global Journal of Life Science and Research* 2(1): 213–219

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

CENTRAL BOTANICAL LABORATORY, HOWRAH

A field tour to Malkangiri district, Odisha was undertaken by Dr. K.A. Sujana, Scientist 'C', Dr. Dhole Pankaj Arvind, Bot. Asst. and Dr. (Mrs.) Monika Mishra, Bot. Asst. from 23rd June to 5th July 2016 and collected 254 specimens (in duplicate) with 391 ethnobotanical information (Medicine-156, veterinary-12, edible-76, fiber/rope-09, fodder-31, agriculture implements-12, small timber-21, fuel-32, brooms-6, plates-2, insecticide—08, oil/resin-14, miscellaneous-12).



Mistry mountains of Malakangiri district of Odisha



CBL officials are engaged in plant collection

Dr. Harish Singh, Scientist 'D' & HoO and Dr. P.A. Dhole, Bot. Asst. identified 20 plant species collected from Nuapada district, Odisha; Dr. Sujana identified 22 plant species collected from Malkangiri district, Odisha; Sri A.C. Halder and Sri Baske, Botanist identified 20 plant species collected from Baudh district of Odisha. Dr. Sujana collected secondary data on 15 endemic trees of Western Ghats and also collected ethnobotanical and economical uses of 5 endemic trees from Malkangiri district. Dr. Monika Mishra collected floral buds of *Canthium coromandelicum* from AJCBIBG for cytological study. Ms. Sagari Chaudhury, Senior Project Fellow identified 10 plant species.

Meeting/programme attended

Dr. Singh and R. Saravanan attended Centenary Celebrations programmes of Zoological Survey of India and meeting of Hon'ble Minister of MoEF & CC at ZSI, New Alipore, Kolkata on 01.07.2016. Dr. Singh, Dr. Sujana, Sri Saravanan, Dr. Dhole and Dr. Monika Mishra attended *Van Mahotsav* programme and Dr. Singh also distributed certificates to the participants of Sit and Draw competition at AJCBIBG, Howrah on 08.07.2016.

Dr. Harish Singh demonstrated ethnobotanical exhibits to Additional Secretary, Advisor, Dy. Secretary and Under Secretary of MoEF & CC, New



Dr. H. Singh showing ethnobotanical exhibits to Dr. Amita Prasad, Addl. Secretary, MoEF & CC

Delhi and also presented activities of CBL during the review meeting under the chairman ship of Additional Secretary in committee room, CNH Howrah on 01.07.2016.

Public service rendered

Dr. Harish Singh reviewed a paper for *Journal of Economic and Taxonomic Botany*.

Publications

Chaudhury, S., Rahaman, C.H. and Singh, H. 2016. Some Ethnozoological uses Birhor tribe of West Bengal, India. *J. Traditional and Folk Practices* 02, 03, 04 (1): 33–42.

– Dr. Harish Singh
Scientist 'D' & HoO

ANDAMAN & NICOBAR REGIONAL CENTRE, PORT BLAIR

Dr. T.A.M. Jagadeesh Ram, Scientist 'D' identified 138 specimens of Pyrenulaceae into 18 species.

Dr. Sanjay Mishra, Scientist 'B' identified four specimens at PBL *Strobilanthes glandulosa* (F. no. 12362), *Canscora diffusa* (F. no. 12384), *Centotheca lappacea* (F. no. 12381), *Ischaemum indicum* (F. no. 12385).

Digitization of Herbarium Specimens

Herbarium sheets Scanned: 15 herbarium specimens of family Acanthaceae.

Herbarium details computerized in EXCEL format: 1687 herbarium specimens belonging to the families Caesalpiniaceae, Combretaceae, Fabaceae, Mimosaceae, Myrtaceae, Rhizophoraceae and Rosaceae were fed in the computer in a prescribed format.

Public service rendered

Dr. Lal Ji Singh, Scientist 'D' & HoO, reviewed a manuscript for BSI, ENVIS Newsletter.

The seeds (55 nos.) and seedlings (25 nos.) of *Musa indandamanensis* supplied to The Central Islands Agricultural Research Institute, Port Blair for horticultural research and ex-situ conservation on 15.07.2016.

Received a seedling of rare, endemic xerophytic plant, *Euphorbia epiphylloides* from Sri M.S. Nagi, IFS, PCCF & Principal Secretary, Environment & Forests, Andaman and Nicobar Islands at the Forest Training Institute, Wimberlygunj, South Andaman for ex-situ conservation on 15.07.2016.

The regional centre organized Environmental Awareness programme to mark the occasion of 67th Van Mahotsav-2016 at Government Middle School, Humfrygunj, South Andaman on 22.07.2016. On this occasion over 100 saplings of rare, endangered and threatened plants were planted by the students, teaching and non-teaching staff. About 200 students along with teaching and non-teaching staff of the school and BSI Scientists and staff members participated in the celebration of Van Mahotsav-2016.



Photo: ANRC

Dr. Lal Ji Singh, receiving the seedling of *Euphorbia epiphylloides* from Sri M.S. Nagi, IFS, PCCF & Principal Secretary, Environment & Forests, Andaman and Nicobar Islands for ex-situ conservation



Photo: Gautam Anuj Ekka

Dr. Lal Ji Singh addressing gathering during celebration of 67th Van Mahotsav organized by ANRC, BSI, Port Blair



Smt. Resham Kaur, Principal, Govt. Middle School, Humfrygunj, planting sapling of *Areca triandra*

Meeting/Programme attended

Dr. Lal Ji Singh attended pre Ph.D. seminar on "Studies on Hand, Foot and Mouth Disease in Andaman and Nicobar Islands" at ICMR, Regional Medicinal Centre, Port Blair on 11.07.2016.

Dr. Singh participated passing out ceremony of 49th Batch of Foresters (2015-2016) at the Forest Training Institute, Wimberlygunj, South Andaman on 15.07.2016.

Dr. Jagadeesh Ram attended the training/ sensitization programme on enhanced PFMS Portal for CDDOs on 21.07.2016 at Kolkata.



***Dendrophthoe glabrescens* bloom at Guest House, Hut Bay, Little Andaman**

Photo: Lal Ji Singh

Dr. Singh participated State Medicinal Plants Board advisory committee meeting at Office of the Chief Conservator of Forests, Research and Working Plan, Haddo, Port Blair on 22.07. 2016.

Dr. Singh attended Half Yearly meeting of Town Official Language Implementation Committee (TOLIC) at CIARI, Port Blair on 29.07.2016.

Visitors/students

Sri Gaurav Mazumder, Project Fellow, CIARI, Port Blair, visited library on 05.07.2016.

Dr. Paramjit Singh, Director, BSI visited the Andaman & Nicobar Regional Centre, PortBlair on 09.07.2016 and reviewed the ongoing projects at this centre. Dr. Singh also visited the Dhanikhari Experimental Garden cum Arboretum (DEGA) at Nayasahar (about 30 km. from PortBlair) and inspected the endemic and threatened plants of these Islands conserved there as part of the *ex-situ* conservation.



Photo: Gautam Anuj Ekka

Dr. Paramjit Singh, Director, BSI, Kolkata inspecting *ex-situ* conservation of endemic and threatened plants



Dr. Paramjit Singh, Director, BSI, Kolkata planting sapling of *Bentinckia nicobarica* at DEGA

Sri Alok Kumar, INS Vishwakarma Naval base, Vishakhapattanam along with 3 member visited Garden on 10.07.2016.

Dr. Radhey Shyam Sharma, Ayu. N.D.M.C. (LSM) Health Dept. along with 10 members visited Museum and herbarium on 11.07.2016.

Ms. M. Meenu and Ms. Arpita Samadder, M. Sc students, JNRM, Port Blair visited Library and Herbarium for consultation of family Myristicaceae and Anacardiaceae on 14.07.2016.

Sri. Joju P. Alappatt, Director, FTI, Wimberligunj visited Herbarium for consultation of family Lauraceae on 25.07.2016.

Dr. Ajit Waman, Scientist, CIARI and Dr. Pooja Bohra, Scientist, CIARI, visited Herbarium for consultation of family Clusiaceae on 26.07.2016.

Smt. G.S. Lakra, ex-Botanist, BSI, visited Herbarium for consultation of family Combretaceae on 29.07.2016.

Publication

Singh, L.J., Kumar, B. and Ranjan, V. 2016. Identity of *Dendrophthoe glabrescens* (Loranthaceae) and its new distributional range in India. *Bionature* 36 (1): 3-7.

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

ARID ZONE REGIONAL CENTRE, JODHPUR

For the project, 'Flora of Todgarh-Raoli Wildlife Sanctuary, Rajasthan', Dr. Chandan Singh Purohit, Scientist 'B' proceeded on tour from 26.07.2016.

For the project, 'Flora of Navsari District, Gujarat', Dr. Ramesh Kumar, Scientist 'C' and Sri Vinod Maina, Scientist 'D' & HoO proceeded on tour on 28.07.2016.



Photo: P. Harikrishna

Grewia tenax (Malvaceae) flowering in AZRC



Seddera latifolia (Convolvulaceae) flowering in AZRC

Herbarium specimen identification

In connection with the projects, 'Ethnobotany of Dang District, Gujarat', Sri Vinod Maina, Scientist 'D' & HoO and Sri Ravi Prasad, Bot. Asst. identified specimens of 11 field numbers; 'Flora of Shoolpaneshwar WLS, Narmada District, Gujarat', Dr. S.L. Meena, Scientist 'D' and Dr. Harikrishana Peddi, Bot. Asst. identified 55 field numbers and 'Flora of Sariska Tiger Reserve, Alwar District, Rajasthan', Sri M.K. Singhadiya, Botanist and Sri Ravi Prasad, Bot. Asst. identified specimens of 21 field numbers.

– Dr. S.L. Meena
Scientist 'D' – I/C

CENTRAL REGIONAL CENTRE, ALLAHABAD

A total of 52 species under 121 specimens were identified under the projects, 'Flora of Chhattisgarh' and 'Flora of Parvati Aranga Wildlife Sanctuary and adjacent Tikri forest area, Gonda, Uttar Pradesh'.

Completed taxonomic description of 12 species under ongoing project, 'Flora of Chhattisgarh Vol. I'; 29 species under 'Flora of Chhattisgarh' Vol. II and 6 species under 'Flora of Parvati Aranga Wildlife Sanctuary and adjacent Tikri forest area, Gonda, Uttar Pradesh'.

In addition, 20 earlier collected specimens housed at BSA were also identified.

For the projects, 'Lichens of Rajasthan and Kutch, Gujarat' and 'Taxonomic studies on lichenised non Thelotremoid Indian Graphidaceae' a total of 20 species under 49 specimens were identified.



Photo: A.N. Shukla

Tylophora indica (Asclepiadaceae)

Dr. A.K. Verma, Scientist 'B' completed analysis of morphometric data of 40 accessions of *Gymnema sylvestre* (Project- DST-SERB-Young Scientist).

Public service rendered

Dr. A.N. Shukla, Scientist 'B' reviewed a manuscript for *Indian Forester*.

Dr. Nitisha Srivastava, Bot. Asst. reviewed one manuscript each for *International Research Journal of Agricultural and Food Sciences* and for *International Journal of Agricultural Policy and Research*.

Lecture delivered/meeting attended

Dr. G.P. Sinha, Scientist 'E' & HoO delivered a lecture in Refreshers course of Central Audit officials at Regional Training Institute, Principal A.G. Office, Allahabad on the topic entitled "Organization and Policy Initiatives for Environmental Protection and Climate Change in India" on 12.07.2016.

Dr. G. P. Sinha, Scientist 'E' & HoO, Dr. A.N. Shukla, Scientist 'B' and Dr. Neelam Gautam, Scientist 'B', attended a meeting with Director and Scientists of Birbal Sahni Institute of Palaeosciences (BSIP), Lucknow on 14.07.2016 towards formulation of a collaborative project between two Institutes.

Publications

Garg, A., Singh, V. and Pandey, J. 2016. The exclusion zone of Narora Atomic Power Station - A control hot house. *Curr. Sci.* 111(1): 11–12.

Gupta, P. and Sinha, G.P. 2016. A first note on foliicolous lichens of Assam. *J. Threat. Taxa* 8(7): 9014–9023.

Tiwari, A.P. 2016. *Papilionanthe* Schltr. (Orchidaceae) – A new generic record for Chhattisgarh, India. *J. Bombay Nat. Hist. Soc.* 112(1): 47–48.

Tiwari, A.P. and Shukla, A.N. 2016. *Smithia setulosa* Dalzell (Fabaceae) - a new record for Central India. *Indian For.* 142(6): 613–614.

– Dr. G.P. Sinha
Scientist 'E' & HoO

DECCAN REGIONAL CENTRE, HYDERABAD

Dr. J. Swamy, Bot. Asst. conducted a field tour to Sacred groves of Nellore district (*viz.*, Penusila Narasimha, Narasimha Konda, Siddulaiah Kona, Siddulaiah Konda, Bairagula Kona and Stambala Kona) of Andhra Pradesh from 11th to 18th July 2016 and collected 190 field numbers of specimens and also documented about 200 species. Dr. G. Swarnalatha, Bot. Asst. undertaken a field tour to Paralakhemundi Forest Division of Odisha from 4th to 14th July 2016 and collected about 200 lichen specimens. Sri K. Chandramohan, SPF conducted a field tour to Tikarpada and Purunakote Forest Ranges of Satkosia Tiger Reserve, Odisha from 24th to 29th July 2016 and collected specimens of 25 field numbers and also consulted Herbarium of Regional Plant Resource Centre (RPRC), Bhubaneshwar from 21st to 23rd July 2016.



Photo: DRC

Dr. J. Swamy collecting information from Bairagula Kona sacred grove, Nellore district, Andhra Pradesh



Gardenia latifolia (Rubiaceae) from Bairagula Kona sacred grove, Nellore district, Andhra Pradesh



Photo: K. Chandramohan

***Antidesma acidum* (Euphorbiaceae) from Satkosia Tiger Reserve, Odisha**



***Caralluma diffusa* (Apocynaceae) from Satkosia Tiger Reserve, Odisha**

Herbarium specimen identifications

Dr. J. Swamy and Sri S. Nagaraju, Bot. Asst. identified specimens of 18 field numbers in connection with Seshachalam Biosphere Reserve; Dr. Swamy, identified specimens of 22 field numbers in connection with the Sacred Groves of Andhra Pradesh and Sri K. Chandramohan identified specimens of 10 field numbers for Flora of Satkosia Tiger Reserve. Dr. L. Rasingam, Scientist 'C' documented 15 species in connection with Flora of Nagarjunasagar – Srisaïlam Wildlife Sanctuary.

In connection with the Flora of Satkosia Tiger Reserve Sri K. Chandramohan made descriptions for six families viz., Orchidaceae, Moraceae, Dioscoreaceae, Liliaceae, Commelinaceae and Asparagaceae; Ms. P.S. Annamma, SPF made descriptions for 12 species in connection with the Flora of Kawal Tiger Reserve and Dr. K. Prasad, RA studied and mapped the detailed distribution of the endemic plant *Habenaria polyodon* as part of conservation studies.

Digitization of herbarium specimens

In connection with digitization of herbarium specimens at BSID, 450 herbarium specimens of 21 genera from Acanthaceae, Lamiaceae and Verbenaceae families were scanned and data entry of label information completed. About 300 scanned images were converted from TIFF to JPEG format.

Visitors/students

Dr. Bhagyashri Kumbhalkar, Jr. Scientist, Ms. Priyanka and Sri Kishor, Research Fellows, Naoroji Godrej Centre for Plant Research (NGCPR), Shirwal, Satara, Maharashtra.

Programme attended

Dr. L. Rasingam, Scientist 'C' attended the Techno-Legal Advisory Group meeting at Office of the Telangana State Biodiversity Board, Hyderabad on 22.07.2016.

– Dr. M. Ahmedullah
Scientist 'E' & HoO

EASTERN REGIONAL CENTRE, SHILLONG

During the period, six field tours were conducted by Dr. Chaya Deori, Scientist 'D' and Sri S.R. Talukdar, Bot. Asst. to west and south west khasi hills district, Meghalaya from 5th to 9th July 2016 and collected 212 field number of specimens and 37 live plants; one tour to Ukhrul, Manipur for observing profuse flowering of a rare Ginger was undertaken from 22nd to 24th July 2016 by Dr. A.A. Mao, Scientist 'F' & HoO, Dr. S.K. Singh, Scientist 'D' along with Director, BSI, Kolkata; four local field trips to KBET Nongbrei forests on 02.07.2016; Umroi forests on 05.07.2016; Jaintia hills on 14.07.2016 and Cherrapunjee areas on 17.07.2016 were conducted by Dr. M. Murugesan, Scientist 'B' and Sri L.R. Meitei, Botanist and collected 121 live plantlets for planting in their respective sections.

Apart from these, four local tours to Ri-Bhoi and Jaintia Hills district were conducted for collection of aquatic plant litter, plant leaf and twig litter etc on 2nd, 7th, 13th and 24th July, 2016 and isolated 15 fungi from samples collected.

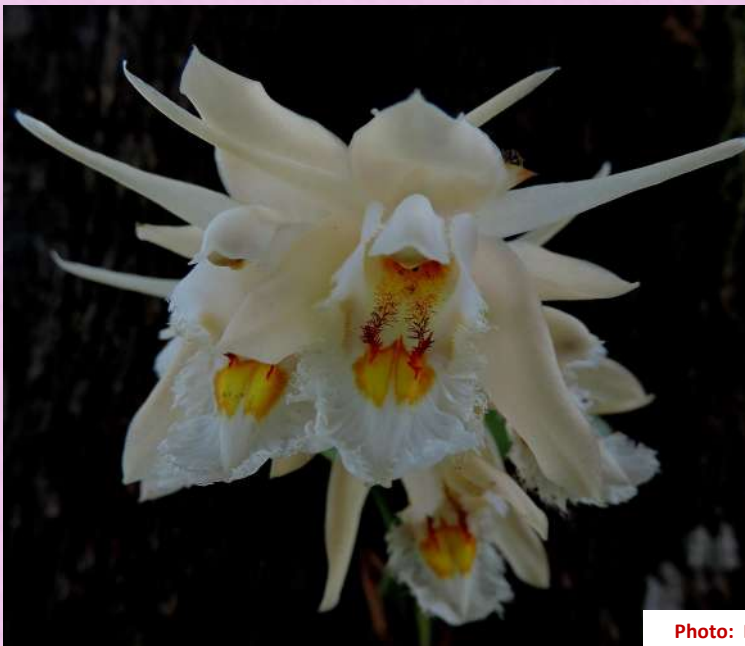
For Micropropagation, Phytochemical Screening of Medicinal Plants and Molecular Characterization of Selected Species by Dr. Deepu Vijayan, Scientist 'B', a plant exploration tour was undertaken to Tyrshii falls, Jowai along with other scientists on 13.07.2016.

Herbarium specimen identification

Identified 11 species for Flora of Eastern Nagaland by Dr. N. Odyuo, Scientist 'D' and Dr. R. Daimary, Bot. Asst., described 27 species for Flora of Amchang WLS by Dr. A.A. Mao, Mrs. Nandita Sarma, Sr. Pres. Asst. Taxonomic description completed for five species *Odontoschisma denudatum*, *Solenostoma ariadne*, *S. atrobrunneum*, *S. Comatum*, *S. fusiforme*. for Bryoflora of Mizoram and studied literature pertaining to one unidentified species of *Riccia*. Identified three species viz., *Riccia huebenriana*, *R. stricta* and *R. discolor* previously collected from Meghalaya for Taxonomic Revision of genus *Riccia* (Marchantiophyta) in India is continued by Dr. S.K. Singh, Scientist 'D'.

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, observed and recorded phenological data of flowering and fruiting of 36 plant species viz., *Alpinia galanga*, *Arundina bambusifolia*, *Begonia hatacoa*, *Brachycorythis obcordata*, *Callicarpa rubella*, *Caulokaempferia subsecunda*, *Cleisostoma racemiferum*, *Coelogyne fimbriata*, *Crepidium calophyllum*, *Crepidium acuminatum*, *Curcuma longa*, *C. aurantiaca*, *Dendrobium salaccense*, *Dendrobium chrysanthum*, *Dienia ophrydis*, *Eria spicata*, *Flickingeria fugax*, *Globba clarkei*, *Gloriosa superba*, *Habenaria acuifera*, *Hedychium coccineum*, *Kaempferia galanga*, *K. parviflora*, *Lagerstroemia indica*, *Liparis nervosa*, *Litsea cubeba*, *Mussaenda macrophylla*, *Mycetia longifolia*, *Pteroceras teres*, *Robiquetia succisa*, *Sterculia urens*, *Rauvolfia serpentina*, *Tacca integrifolia*, *Thelasis khasiana*, *Vanda cristata*, *Zanthyxylum acanthopodium*.

Micro-propagation of RET Plants of Northeast India by Dr. A.A. Mao and L. Ibemhal Chanu, Bot. Asst. subcultured *Armadorum senapatianum* and *Cymbidium tigrinum* seedlings.



Coelogyne calcicola (Orchidaceae)



Oberonia pumilio (Orchidaceae)

Photo: N. Odyuo

Continued subculturing of *Pyrenaria khasiana* on Woody Plant Medium with different concentrations of growth regulator for multiple shoot induction studies. Set up rooting experiment of *Pyrenaria khasiana* on Woody Plant Medium supplemented with different concentrations of growth regulator for multiple

shoot induction studies. Set up rooting experiment of *Pyrenaria khasiana* on Woody Plant Medium supplemented with different concentrations of auxins. DNA extraction from *Pyrenaria cherrapunjeana*, *Dendrobium* sp. Manipur, *Dendrobium* sp. Nagaland and *Pennelabium* sp. and the extracted DNA was quantified on 0.8% agarose gel and documented. PCR amplification of DNA samples of different species of *Rhododendron*, *P. venustum* (Meghalaya) and *P. venustum* (Arunachal) using rbcl (9 samples) was done, purified these PCR products and sent for sequencing.

Public service rendered

Identified about Eight samples of specimens received from various institutions.

Visitors/students

Dr. Desh Brar Singh, Director, ICAR- CITH, Srinagar, Jammu and Kashmir

Dr. Sree Kumar and Dr. P. K.C. Pillai, Scientists from Kerala Forest Seed Centre, Thrissur, Kerala

Dr. A.K. Jha, Scientist from ICAR, Umiam, Meghalaya.

29 Range Officer Trainees of Central Academy for State Forest Service, Burnihat, Assam.

Raju Handique and his colleague, Research Scholar of Kaziranga Orchid Park, Golaghat, Assam.

Sangita Devi and Lalchhanhimi, Research Scholars, Botany Department, NEHU.

S.A.L. Nongbri, Research Scholars, Botany Department, NEHU, Shillong.

Prof. K.L. Chaudhary, Lady Keane College.

Seikuti Noro, Research Scholar, Pondicherry University,

Shekhar Ch. Bora, Research Scholar, Dibrugarh University.

Dr. S. Dutta, Asst. Professor (Sr.) Pandu College, Guwahati

Publications

Jadhav D.C., Prabhugaonkar A. and Nandikar M.D. 2016. Nomenclature notes on the genus *Salacia* L. (Celastraceae) in India. *Phytotaxa* 265 (2): 121–130.

Odyuo, N., Deori, C. and Roy, D.K. 2016. *Oberonia pumilio* Rchb.f. - A new addition to the orchid flora of Meghalaya. *NeBio* 7 (2): 42–44.

Odyuo, N., Deori, C. and Daimary. R. 2016. *Coelogyne calcicola* (Orchidaceae): an addition to the flora of India. *Richardiana* 16: 343–346.

– Dr. A.A. Mao
Scientist 'F' & HoO

NORTHERN REGIONAL CENTRE, DEHRADUN

Dr. P.K. Pusalkar, Scientist 'D' conducted a field tour to Pithoragarh, Bageshwar, Nainital, Champawat, Chamoli and Rudraprayag from 28th June to 7th July 216. Collected 322 specimens including RET 44 species and 25 live collections for *ex-situ* conservation.

Herbarium Specimens Identified

Identified total 85 species and made descriptions for 54 species of plants in connection with the projects on Flora of Uttarakhand Vol. 5; 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, Chamba District, Himachal Pradesh; Trees of Dehradun city and its vicinity; Revision of family Cyatheaceae and genus *Adiantum* in India.

Public services rendered

Identified *Achyranthes bidentata* and *Achyranthes aspera* for Sri Rupesh Kr. Sanger from Rishikul Campus, Haridwar.

Visitors/students

Three Research Scholars from Shoolini University, Himachal Pradesh visited the herbarium to consult some economic plants of the family Euphorbiaceae, Two Research scholars from FRI, Dehradun visited herbarium to consult family Poaceae and one Research Scholar from ICAR, Almora, visited to consult the family Leguminosae.



Photo: S.K. Srivastava

Gymnosperm Sanctuary at Experimental Botanical Garden, Nagdev, Pauri, Uttarakhand



Photo: Puneet Kumar

***Bromus tectorum* (Poaceae) growing near Karyuni village, Pangni valley, Himachal Pradesh**



Photo: Puneet Kumar

***Pinus gerardiana* (Pinaceae) growing in Pangni valley Himachal Pradesh**



Photo: Puneet Kumar

Bird's eye view of Pangni valley Himachal Pradesh



Photo: Amber Srivastava

***Uria picta* (Leguminosae) growing in Dehradun**



Photo: Amber Srivastava

***Ceropegia macrantha* (Apocynaceae) in Dehradun**

Publications

Kumar, P. and Singhal, V.K. 2016. Nucleoli migration coupled with cytomixis. *Biologia* 71(6): 651–659.
Srivastava, S.K. and Deroliya, P.K. 2016. Vaishvik manch par Hindi Bhasha ka sthan. *Doonvani* 4: 1–3.

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

SIKKIM HIMALAYAN REGIONAL CENTRE, GANGTOK

Dr. Dinesh Kumar Agrawala, Scientist 'C' & HoO identified 15 Orchid species and illustrated six species for the project, "Red listing of Orchids of Eastern Himalaya as per IUCN criteria".

Dr. David Lalsama Biata, Scientist 'B' identified one species and illustrated one species for the project, "Flora of Sikkim - Family Onagraceae".

Sri S.K. Rai, Bot. Asst. identified 26 species from 53 unidentified herbarium sheets.

Sri Subash Pradhan, Field man, identified six species from 16 unidentified herbarium sheets.

Digitisation of Herbarium specimens

405 herbarium sheets were digitized and 320 sheets meta data entered into EXCEL –worksheet for the family Caryophyllaceae.

Public Service rendered

Dr. D.K. Agrawala attended National Research Centre (NRC) for Orchids, Pakyong as a member of Project Evaluation Committee for evaluation of synopsis under National Mission on Himalayan studies (NMHS) project on 04.07.2016.

Dr. D.K. Agrawala attended a meeting with the Estate Officer, Rajbhawan for development of herbal garden in Rajbhawan campus on 12.07.2016.

Dr. D.K. Agrawala attended National Research Centre (NRC) for Orchids, Pakyong for invigilating the written test of T-3 examination on 14.07.2016 and 17.07.2016.

Dr. D.K. Agrawala attended National Research Centre (NRC) for Orchids, Pakyong as a member of interview committee for selection of various project staff on 23.07.2016.

Training attended

Dr. David Lalsama Biata and Sri Indra Tuti, O.S, participated one day Training/Sensitization programme on enhanced Public Financial Management System (PFMS) portal at pay & Accounts office, Nizam palace, complex, Kolkata on 21.07.2016.

Visitors

Dr. Shyamali Chakraborty, Dr. N. Silo and Sri Nima from National Research Centre (NRC) for Orchids, Pakyong have visited SHRC, for knowing the Orchid Systematics, Species Complexes within different Orchid genera and study of climate change on 19.06.2016.

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

SOUTHERN REGIONAL CENTRE, COIMBATORE

Dr. S. Kaliamoorthy, Scientist 'D' and Dr. M.Y. Kamble, Scientist 'D' conducted field tours to Sanyasimalai Reserve Forest and Kurumpapatti Zoological Park, Yercaud on 5th and 13th July 2016 respectively and collected 12 plant samples of 3 orchids (*Disperis neilgherrensis*, *Habenaria roxburghii* and *Eulophia epidendreaea*) and introduced them into the National Orchidarium and Experimental Garden (NOEG), Yercaud. Dr. M. Palanisamy, Scientist 'D' undertaken a herbarium consultation tour from 5th to 9th July 2016 at CMFRI and CSMCRI, Mandapam Camp, Ramnathpuram, Tamil Nadu and consulted seaweed specimens and collected relevant literature. Sri S. Arumugam, Bot. Asst. made a herbarium consultation tour to Rapinat Herbarium, Trichy from 8th to 10th July 2016 for referring grass specimens.

Herbarium specimen identification

Dr. M. Palanisamy identified 10 field numbers of seaweed specimens for 'Seaweed Flora of Karnataka coast'. Dr. K.A.A. Kabeer, Scientist 'D' and Sri A. Ravi Kiran, Bot. Asst. identified and labeled 26 field numbers collected from Kodaikanal WLS, Tamil Nadu.



Photo: K.A.A. Kabeer

***Euonymus crenulatus* (Celastraceae)**

Photo: A. Ravi Kiran

Pittosporum napaulense* (Pittosporaceae)*Ex-situ conservation**

Dr. S. Kaliamoorthy and his team introduced 12 plant samples of 3 orchids (*Disperis neilgherrensis*, *Habenaria roxburghii* and *Eulophia epidendreaea*) and 41 samples, belonging to 5 species of *Barleria* in NOEG, Yercaud. They also multiplied 32 samples of orchids including several endemic and ornamental species and 26 samples of other plants, and developed 36 seedlings, 54 cuttings and transplanted one sample of *Goodyera procera*. In addition, they also recorded the phenology of 29 species including 22 orchids and 7 other angiosperms.

Digitisation of Herbarium specimens

1500 digital images of MH type specimens were converted from TIFF to JPEG files and 40 sheets were scanned and added in data base. 2 type specimens received from Dr. Milind Sardesai, BA Marathwada University, Aurangabad, Maharashtra and 4 from Mr. R.K. Singh, Botanist were scanned and added in type section.

Scanning Electron Microscopy (SEM)

Dr. J.V. Sudhakar, Bot. Asst. examined the achenes of *Ficus punctata* and taken four SEM images.

Public service rendered

During this month, 35 plants including 2 seaweeds and 1 seagrass were identified for research scholars and students from various institutions.

Dr. K.A.A. Kabeer and Dr. J.V. Sudhakar conducted 2 days field tour to Nilgiris near Emerald and accompanied the officials of Tamil Nadu Electricity Board (TNEB) in connection with TNEB Silahalla Hydro-Electricity Project on 12th and 13th July 2016 and inspected the proposed site and recorded 135 species of plants. A preliminary report on Environmental Impact Assessment was sent to the concerned authority.

Facilities were provided to Dr. K.N. Nair, Senior Principal Scientist, CSIR-NBRI, Lucknow for the collection of *Didymocarpus* spp. (Gesneriaceae) from Valparai and Ooty on 14th and 15th July respectively. Sri S. Arumugam accompanied him during field tours.

16 digital images of types and general specimens were provided to research scholars of various institutions / universities.

**Survey of plants in proposed Sillahalla Hydroelectric Project site in Nilgiris by SRC officials**

Photo: SRC

Dr. M. Palanisamy served as a resource person for a 'National Level Workshop on Plant Identification' and also delivered a lecture on 'Seaweed resources of India' at Kongunadu Arts and Science College on 28.07.2016.

Training attended

Sri R. K. Singh, Botanist attended training programme on PFMS held at PAO, Kolkata on 21.07.2016.

Visitors/students

Dr. K.N. Nair, Senior Principal Scientist, CSIR-NBRI, Lucknow visited the centre and consulted the herbarium and library from 11th to 15th July 2016. A batch of 57 B.Sc. students and 5 staff from PSGR Krishnammal College for Women, Coimbatore visited the museum, herbarium and library on 29.07.2016. Besides, 21 research scholars from various institutions also visited and consulted the herbarium and library whilst 668 persons in 89 parties visited the NOEG, Yercaud.

Publications

Gosavi, K.V.C., Chandore, A.N. and Kamble, M.Y. 2016. *Aira* (Poaceae): a new generic record for Nicobar Islands, India. *Journ. Threat. Taxa* 8(6): 8948–8949; <http://dx.doi.org/10.11609/jott.2128.8.6.8948-8949>.

Singh, R.K. 2016. Lectotypification of three Indian endemic taxa of *Pittosporum* (Pittosporaceae). *Turkish J. Bot.* 40(5): 557–560.

Singh, R.K. 2016. Typification of thirty six names of thirty five recognized taxa in *Impatiens* (Balsaminaceae), endemic to Western Ghats. *Phytotaxa* 268(3): 167–180.

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

WESTERN REGIONAL CENTRE, PUNE

Dr. Priyanka Ingle, Scientist 'B' conducted one field exploration tour to Wan Wildlife Sanctuary, Maharashtra from 25th July to 9th August 2016 for the project, "Floristic diversity of Wan Wildlife Sanctuary, Maharashtra". Dr. Priyanka collected about 150 field numbers of specimens.



Photo: C.R. Jadhav

Flacourtia montana (Flacourtiaceae) from Someshwara Wildlife Sanctuary, Karnataka

Justicia santapau (Acanthaceae) from Someshwara Wildlife Sanctuary, Karnataka

Specimen Identification

Dr. C.R. Jadhav, Botanist identified 30 angiosperm species for the project, "Floristic survey of Someshwara Wildlife Sanctuary, Karnataka". Dr. A. Benniamin, Scientist 'D' identified six pteridophyte species and studied spore morphology of three species for the project, "Ferns of Karnataka". Sri D. Tripathi, SPF identified four pteridophyte specimens collected from Kudremukh National Park, Karnataka. Ms. S. Shreya, SPF identified ten microfungi under the project, "Microfungi of BRT Wildlife Sanctuary, Karnataka".

Summer Training Fellowship programme

Dr. Surender Singh Yadav, Asst. Professor, Department of Botany, Maharishi Dayanand University, Rohtak joined WRC under Summer Training Fellowship programme of INSA, Bangalore for a period of two months. Two Post Graduate students Sri Dhanavate S. Rahul and Sri Pathare A. Sagar from Sri Sadguru Gangageer Maharaj Science, Gautam Arts and Sanjivani Commerce College, Kopargaon, Ahmednagar joined WRC under summer training project for a period of one month.

Public service rendered

During this month identification and authentication certificates were issued to 11 students from B. Pharm, M. Pharm. colleges, Ph.D. and P.G. students from different institutions.

Meetings /programmes attended/conducted

Dr. P. Lakshminarasimhan, Dr. A. Benniamin, Dr. P. Ingle, Sri B.P. Kadam and Sri Devendra Tripathi, attended a forest festival Van Mahotsav- 'Ekasch lakshya Don koti vraksh' organized by Government of Maharashtra, Forest Department, Pune on 01.07.2016 at Warje Tekdi, Pune.

The Principal, Associate Professors, Assistant Professors and students from St. Mira's College, Pune undertook plantation programme in the campus of WRC office in connection with the *Van Mahotsav* held on 01.07.2016. About 50 saplings of native tree species were planted during the programme in the WRC campus, Pune.

Dr. P. Lakshminarasimhan attended the Review meeting of Grant in Aid scheme of MoEF&CC including All India Coordinated Project on Capacity Building in Taxonomy (AICOPTAX) and made a power point presentation on behalf of BSI on 11.07.2016, before the Committee in MoEF & CC, New Delhi.

Dr. P. Lakshminarasimhan attended the Ph.D. viva-voce of Ms. Debatri Panja (Kundu) for her topic "Studies on taxonomy of the tribes Acantheae, Nelsonieae and Thunbergieae (Acanthaceae) in India" held at Visva-Bharati University, Santiniketan, West Bengal on 29.07.2016 as a Co-Supervisor.



Photo: D. Jesubalan

Faculties and students from St. Mira's College, Pune at WRC Campus



Plantation programme conducted by Students from St. Mira's College, Pune at WRC Campus

Visitors/students

Dr. Soumana Dutta, Associate Professor, Maharani College, Jaipur, Rajasthan visited WRC museum and herbarium.

37 students and 2 faculties from Jai Hind College, Mumbai visited WRC as part of their curriculum.

Sri Mehaboob D. Nadaf and Sri Rokade Kridhnat, Research scholars, Shivaji University, Kolhapur visited WRC for Herbarium consultation.

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

VISIT OF DR. (MRS.) AMITA PRASAD, ADDL. SECRETARY, MoEF & CC TO BSI, HOWRAH



Photo: Amar Mondal

PLANT OF THE MONTH



Byrsonima lucida DC. (MALPIGHIACEAE) is an evergreen shrub with showy multi-coloured flowers commonly known as Locust Berry. This shrub is native to islands in the Caribbean and to the Florida State of USA. It can be spotted in flowering at AJC Bose Indian Botanic Garden, Howrah, during April to August.

By C.M. Sabapathy

अण्डमान निकोबार द्वीप समाचार

स्था। 203

पोर्ट ब्लेयर,

रविवार, 24 जुलाई, 2016

web: www.ar

वनस्पति सर्वेक्षण द्वारा पर्यावरण जागरूकता कार्यक्रम

पोर्ट ब्लेयर, 23 जुलाई।

67वें वन महोत्सव मनाए जाने के सिलसिले में भारतीय वनस्पति सर्वेक्षण द्वारा दक्षिण अंडमान के हम्फ्रीगंज के राजकीय माध्यमिक विद्यालय में पर्यावरण जागरूकता कार्यक्रम का आयोजन किया गया। उप निदेशक व कार्यालय प्रमुख डॉ. लालजी सिंह ने डायनोसोर युग के साइकस नामक पौधा रोप कर कार्यक्रम का उद्घाटन किया। कार्यक्रम में प्रधानाचार्या श्रीमती रेशम कौर, प्रधानाध्यापिका श्रीमती कृष्णा बनर्जी, सभी शिक्षण एवं गैर शिक्षण कर्मचारी, सेवानिवृत्त शिक्षण कर्मचारी तथा स्कूल के विद्यार्थी शामिल हुए।

डॉ. सिंह ने बताया कि वन एवं वन उत्पादों के संरक्षण तथा वहनीय उपयोग की दिशा में लोगों को जागरूक करने के लिए इस प्रकार के कार्यक्रम का आयोजन किया गया है। उन्होंने पौध संरक्षण की जरूरत के बारे में संदेश के प्रचार-प्रसार में स्कूली बच्चों की सक्रिय भूमिका पर जोर दिया। उन्होंने यह भी कहा कि हमारी पृथ्वी के बेहतर भविष्य के लिए ग्लोबल वार्मिंग के प्रभाव को कम करना बहुत ही आवश्यक है। उन्होंने कहा कि विद्यार्थियों को पेड़-पौधा लगाने के महत्व को रेखांकित करते हुए कहा कि पेड़-पौधों के बारे में प्रत्येक के नैतिक कर्तव्य का बोध होना चाहिए। उन्होंने वनस्पति सर्वेक्षण के वैज्ञानिकों के कार्यों एवं गतिविधियों के बारे में विद्यार्थियों को जागरूक किया।

प्रधानाचार्या ने उपस्थिति का स्वागत किया। कार्यक्रम के दौरान दुर्लभ, स्थानिक एवं संकटापन्न प्रजाति के विविध पौधे रोपे गए। इस मौके पर हम्फ्रीगंज के एसएमबी की अध्यक्ष श्रीमती सुनीता देवी भी उपस्थित थीं।



Dr. Amita Prasad, Addl. Secretary, MoEF & CC, New Delhi, viewing Giant Water Lily at AJC Bose Indian Botanic Garden, Howrah

Photo: D.L. Shirodhkar

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