On the occasion of the 125th Anniversary, two-day programme was organised on 13th and 14th February 2015 at Asutosh Birth Centenary Hall, Indian Museum, Kolkata. In this programme, ‘National Dialogue on Plant Taxonomy and Conservation (NDPTC) cum Exhibition’ was arranged to review the status of the knowledge of our plant resources, extent of documentation and the gaps that needs to be covered. For this national dialogue, eminent scientists and professors from various institutions in the fields of Algae, Fungi, Lichens, Bryophytes and Phanerogams were invited. In this programme, about 200 participants like former Directors and scientists of BSI, professors and scientists from different universities and research organizations as well as research students from West Bengal have participated. In this celebration, Sri Ashok Lavasa, Secretary, Ministry of Environment, Forest & Climate Change (MoEF & CC), New Delhi attended as a Chief Guest. Sri Hem Pande, Addl. Secretary, MoEF & CC also attended the function. During the inaugural session, the Secretary, Additional Secretary and various other dignitaries on the dais released the seven BSI publications. The secretary also launched the BSI official journal website ‘Nelumbo’ on this occasion.

Besides, in all the regional centers of Botanical Survey of India, the 125th anniversary was celebrated by organising lectures and displaying posters as well as by planting saplings.

Happy browsing!

Dr. Paramjit Singh
Director, Botanical Survey of India
A National Level ‘Capacity Building Training Course in Plant Taxonomy’ was jointly organized by the T.N.B. College, Bhagalpur and University Department of Botany, T.M. Bhagalpur University, Bhagalpur in collaboration with Botanical Survey of India (BSI) and ENVIS Centre on Floral Diversity, Howrah at the Department of Botany, T.N.B. College, Bhagalpur from 20th to 27th February, 2015. The course was attended by 60 participants, consisting of 30 Under Graduate students, 7 M.Sc. students, 15 Research Scholars and 8 Assistant/Associate Professors. The number of resource persons were 21, out of which, 19 were from various regional centres and units of BSI, one each from Bhagalpur and Shivaji University, Kolhapur, Maharashtra.
On the inaugural day of the training programme, Dr. Paramjit Singh, Director, BSI attended the programme as a chief guest. During this week long programme, from the Cryptogamic unit of BSI, Dr. R.K. Gupta, Scientist ‘D’ delivered a lecture on ‘Collection, Preservation and Identification of Algae’, Dr. Kanad Das, Scientist ‘D’ on ‘Collection, Preservation and Identification of Macrofungi’ and Dr. Devendra Singh, Scientist ‘C’ on ‘Collection, Preservation and Identification of Bryophytes’. The Practical classes on Algae, Bryophytes, and Macrofungi were also conducted simultaneously in batches.

Publication

AJC BOSE INDIAN BOTANICAL GARDEN, HOWRAH

Dr. A. Pramanik, Scientist ‘E’ & HoO and Dr. Basant Kumar Singh, Sr. Pres. Asst. undertook tour to Itanagar and surrounding areas from 15.02.2015 to 23.02.2015 for collection of RET plant saplings. The tour party was accompanied by Sri Bikash Jana, SRF; Sri Animesh Maji, JRF; Ms. Rijupalika Roy, JRF and Ms. Sankhamala Mitra, JRF, who collected the specimens of certain groups in connection with their respective research projects under ‘Flora India project’.

The 125th Anniversary of Botanical Survey of India was celebrated in the AJCB Indian Botanical Garden by organising Sit and Draw competition in the Garden campus on 11.02.2015. 30 Students from Govt. Art & Craft College, Kolkata participated in the Competition of ‘Garden on Canvas’. Sri Ashok Lavasa, Secretary, MoEF & CC, New Delhi distributed prizes to the winners of competition during 125th Anniversary celebration held at Asutosh Birth Centenary Hall, Indian Museum, Kolkata on 13.02.15. In AJCBIBG, an evaluation on different divisions of the garden was also made on the occasion of the 125th Anniversary by inviting the retired scientists of BSI on 11.02.2015. Special prizes like King of the Garden, Queen of the Garden and Prince of the Garden were distributed by Sri Ashok Lavasa, to the garden staff during the celebration of 125th Anniversary of BSI on 13.02.2015. Representatives of well maintained divisions also received prizes from different dignitaries especially from ex-Directors on the dais during the celebration of 125th Anniversary of BSI at Indian Museum on 13.02.2015.
In connection with “Flora of Buxa Wildlife Sanctuary, Flora of Jaldapara Wildlife Sanctuary, Flora of Vikramshila Gangetic Dolphin Wildlife Sanctuary and Flora of Gautam Buddha Wildlife Sanctuary”, identification, writing of descriptions and making of line drawings are being made by the scientists and scientific staff. Further, they have displayed portraits of eminent botanists, Roxburgh ‘Flora Indica’ drawings, Wallich Catalogue, Wallich Correspondence, Botanical Paintings, Posters of botanical paintings and other posters in connection with the ‘National Dialogue on Plant Taxonomy and Conservation in India cum Exhibition’ on the occasion of 125 years of BSI. During this inaugural function, ‘Flora of West Bengal, Vol. 2 (Leguminosae – Aizoaceae)’ edited by T.K. Paul, P. Lakshminarasimhan, H.J. Chowdhery, S.S. Dash and P. Singh was released by Sri Ashok Lavasa, Secretary, MoEF & CC at Asuthosh Birth Centenary Hall, Indian Museum.

During this month, 8 new medicinal plants were introduced in the Medicinal Plant Garden (Charak Udyan). The Great Banyan tree, an iconic identity of AJC Bose Indian Botanical Garden, produced 07 new prop roots. 16 aerial roots were encaged and old supports were replaced/repaired. Termite affected prop roots about 115 in number were manually disinfected with insecticides.

Workshop/Training
Dr. Pushpa Kumari, Scientist ‘C’ delivered a lecture and practical demonstration on ‘Collection, Preservation and Identification of Bamboos’ in the Capacity Building Training Course in Plant Taxonomy at the Department of Botany, T.N.B. College, Bhagalpur on 25.02.2015. Dr. Kumari also conducted practical demonstration on ‘Preservation and Identification of Bamboos’ on the same day.

Public service rendered
26 plant saplings were provided to the Ministry of Law & Justice, Kolkata for beautification of their office complex.

Visitors/students
Various dignitaries including the ex-Directors and retired scientists of BSI visited the botanic garden. 35 Forest Trainees from Alipurduar, West Bengal and students from different institutions also visited the botanic garden during this month.

Publication
In connection with the Capacity Building training course in Plant Taxonomy held at T.N.B. College, Bhagalpur and T. M. Bhagalpur University from 20–27 February 2015, as Convener of this National Level workshop, Dr. P. Lakshminarasimhan, Scientist ‘E’ & HoO made all arrangements to conduct the course as well as delivered two lectures, ‘Herbarium Techniques’ on 20th February 2015 and ‘Convention on Biological Diversity’ on 27th February 2015.

Dr. V. Sampath Kumar, Scientist ‘D’ and Dr. (Mrs.) Sangita Das Chowdhury, AJCBPDF delivered lectures on ‘Classification of the Plants’ and ‘Identification of Angiospermic Plants’ respectively on 21st February, 2015. On the same day Dr. Kumar and Dr. (Mrs.) Das Chowdhury conducted the ‘Practical demonstration on Identification of Angiospermic Plants’ along with Sri Gopal Krishna, Sr. Pres. Asst.

Dr. Subir Bandyopadhyay, Scientist ‘B’ delivered a lecture on ‘Plant names and typification’ and Dr. Avishek Bhattacharjee, SERB-Young Scientist delivered a lecture on ‘Flora, Revision and Monograph’ on 24.02.2015, whereas Dr. V.P. Prasad, Scientist ‘D’ delivered a lecture on ‘Collection, Preservation and Identification of Sedges (Cyperaceae)’ on 25.02.2015 in the training course. Dr. Prasad also conducted practical class on ‘identification of Sedges’.

Meeting attended
Dr. P. Lakshminarasimhan, Scientist ‘E’ & HoO attended the 9th meeting of the State Board for Wildlife, West Bengal on 10-2-2015 at Nabanna, Howrah as a representative of Director, BSI.

Visitors/students
- Garhbeta College, Paschim Medinipur (49 students) on 05.02.2015.
- Dinabandhu Andrews College, Kolkata (26 students) on 05.02.2015.
- Trivenidevi Bhalota College, Burdwan (19 students) on 06.02.2015.
- Dhakuakhana College, Dhakuakhana (15 students) on 10.02.2015.
- Maulana Azad College, Kolkata (25 students) on 12.02.2015.
- Shyamsundar College, Burdwan (33 students) on 16.02.2015.
- Scottish Church College, Kolkata (31 students) on 16.02.2015.
- Kandi Raj College, Murshidabad (38 students) on 18.02.2015.
- Sabang Sajanikanta Mahavidyalaya, Paschim Medinipur (14 students) on 20.02.2015.
- Brahmananda Keshab Chandra College, Kolkata (41 students) on 20.02.2015.
- Sanko Chandra Sekhar High School (H.S.), Burdwan (60 students) on 20.02.2015.
- Vivekananda College for Women, Kolkata (21 students) on 26.02.2015.
- Muralidhar Girls College, Kolkata (12 students) on 26.02.2015.
- Rishi Bankim Chandra College, 24-Parganas (N) (12 students) on 27.02.2015.

Publications
In connection with the ongoing project, ‘Ethnobotanical Study of Odisha’ 18 plant species of Deogarh district were identified by Dr. Harish Singh, Scientist ‘D’ and HoO and Dr. P.A. Dhole, Bot. Asstt.; 08 plant species of Jajpur district were identified by Sri P.K. Baske, Botanist; 202 plant species of Koraput district were identified by Dr. Sujana, K.A., Scientist ‘C’; 30 plant species of Ganjam district were identified by Sri A.C. Halder, Botanist. Scientists and scientific staff of CBL displayed 4 ethnobotanical posters and 25 ethnobotanical exhibits during 125th Anniversary of BSI at Asutosh Birth Centenary Hall, Indian Museum, Kolkata.

Visitors/students

Total 185 students and 15 teachers visited from various colleges viz., Dinabandhu Andrew College, Garia, Kolkata; Pingla Thana Maha Vidyalaya, Maligram, Paschim Medinipur; South Calcutta Girls College, Sarat Bose Road, Kolkata; Gurudas College, Narkeldanga, Kolkata; Govt. E.V.P. College, Korba, Chattish Garh; City College, Kolkata and T.D.B. College, Raniganj, Burdwan.

Publication


INDUSTRIAL SECTION INDIAN MUSEUM, HOWRAH

Dr. B.K. Sinha, Scientist ‘F’ & HoO as an organising Secretary made all arrangements for Seminar-cum-Exhibition on ‘National Dialogue on Plant Taxonomy and Conservation-cum-Exhibition’ held at Asutosh Bicentenary Hall, Indian Museum, Kolkata on the occasion of 125th Anniversary of BSI celebrated on February 13-14, 2015. A new brochure on Botanical Gallery was released on this occasion by Sri Ashok Lavasa, Secretary and by Sri Hem Pande, Addl. Secretary, MoEF & CC, New Delhi.

Public service rendered

13 plant samples were identified under NDPS Act.

Publication

The centre has celebrated 125th Birth Anniversary of BSI on 13.02.2015 with a full day lecture programme. Dr. N.B. Singh, Director Extension Education, University of Horticulture & Forestry, Himachal Pradesh was the Chief Guest. Dr. Singh inaugurated the programme and delivered a lecture on ‘Genetics and Plant Biodiversity’. Dr. S. Jayakumar, Head, Dept. of Plant Sciences, JNRM, Port Blair was the Guest of Honour. Sri Depong Sarma, Asst. Prof., Ms. Vidhya, Guest Lecturer along with 21 students, and staff of this Regional Centre also attended the programme besides, ex-scientific staff of this regional centre. Dr. C. Murugan, Scientist ‘D’ & HoO delivered lectures on ‘Herbarium Techniques & Type Concept’ and ‘Diversity of Bay Islands Flora - Review’; Dr. T.A.M. Jagadeesh Ram, Scientist ‘D’ on ‘Taxonomy, Diversity and Significance of Lichens’; Dr. Lalji Singh, Scientist ‘D’ on ‘Endemic Plant Diversity and its Conservation’; Sri C.P. Vivek, Bot. Asst. on ‘Botanical Survey of India – Brief History’ and Sri Gautam Anuj Ekka, Pres. Asst. on ‘Profile of Botanical Survey of India, ANRC, Port Blair’. Dr. Lalji Singh delivered a lecture on ‘How to prepare a project report in Taxonomy at UG and PG level’ on 27.02.15 in Capacity Building Training Course in Plant Taxonomy held at T.N. B. College, Bhagalpur.

Dr. Vineet Kumar Rawat, Scientist ‘C’ conducted a field tour to Manipur from 14.02.2015 to 25.02.2015 and collected specimens of 105 field numbers in connection with the family Polypodiaceae of North East India. Dr. P. Satyanarayana, Scientist ‘D’ & HoO and Sri B.B.T. Tham, Botanist identified specimens of 10 field numbers in connection with Flora of Pakke Tiger Reserve and Wild Life Sanctuary; Dr. Rajib Gogoi, Scientist ‘D’ identified the species of *Impatiens* of Arunachal Pradesh; Dr. Manish K. Kandwal Scientist ‘C’, identified specimens of 12 field numbers for Grass flora of Arunachal Pradesh and Dr. Souravjyoti Borah, Botanist identified specimens of 20 field numbers for Flora of Lohit District & Kamlang WLS. Dr. Manas Bhaumik, Scientist ‘D’ introduced 3 live plants *viz.*, Phaius mishmensis, Larsenianthus sp., Parakaempferia synantha in APRC garden.
125th birth anniversary of Botanical Survey of India was celebrated at APCR and on this occasion a day long programme was organized on 13.02.15. Dr. P. Satyanarayana, Scientist ’D’ & HoO briefed the history of establishment of BSI and its units. Dr. Satyanarayana also delivered a lecture on ‘Plant Taxonomy and Conservation’. Dr. M. Bhaumik, Scientist ‘D’ delivered a talk on ‘Floristic assessment of Abor Hills, New findings and their conservation’; Dr. V. K. Rawat, Scientist ‘C’ on ‘The Polypodiaceae of NE India’; Dr. M. K. Kandwal, Scientist ‘C’ on ‘Grasses, precaution and problems during identification’ and Sri B.B.T. Tham, Botanist on ‘Ex-situ conservation’.

Public Services rendered
Dr. M. Bhaumik, Scientist ‘D’ identified a plant sample for Sri Manoj Kumar and Sri P. Wangpan, Manager, Donyi Polo Tea Estate, East Siang, Arunachal Pradesh.

Publications


ARID ZONE REGIONAL CENTRE, JODHPUR
125th Birth Anniversary of BSI was celebrated at AZRC on 13.02.2015 and on this occasion Dr. R.P. Pandey, Ex-Scientist, Sri P.J. Parmar, Ex-Scientist and other retired staff members of BSI, AZRC and 30 students of Kendriya Vidyalaya (XI-XII std.), Jodhpur were invited. Dr. S.L. Meena, Scientist ‘D’ delivered a lecture on ‘BSI at a Glance’ and a plantation programme was organized.

Visitors/students
25 students of M.Sc. (Botany) and three Professors of Department of Botany, J.N.V. University, Jodhpur visited the centre on 21.01.15. During their visit Dr. S.L. Meena delivered a talk on Herbarium techniques.
BGIR celebrated the 125th Anniversary of the Botanical Survey of India on 13.02.2015. Dr. Sheo Kumar, Scientist ‘E’ & HoO delivered a lecture on ‘Birth Place of Botanical Survey of India’. On this occasion officers of National Council of Educational Research and Training (NCERT), New Delhi, as well as students were invited. Seven Films - ‘Bio-Ethno-Cultural Diversity of North East India’, ‘Cold Deserts - A Fragile Ecosystem’, ‘Herbarium Techniques’, ‘Kalpavriksha’, ‘Rhododendron Hunting’, ‘Van Mahotsava 2013’ and ‘Van Mahotsawa 2014’ were screened. Apart from this, several Photographs, Books, Seeds, Fruits, etc. were also exhibited in the garden as a part of the 125th anniversary celebration.
Flower Show and Botanical Film Show
BGIR organised the 1st Flower Show and Botanical Film Show from 26.02.2015 to 28.02.2015, which were inaugurated by Dr. (Mrs.) R. Dalwani, Advisor, MoEF & CC, New Delhi on 25.02.2015. In the Flower Show, 35 species of winter annuals developed in the garden along with 30 spp. of Cactus and succulents, 10 spp. of endemic and critically endangered plants, gymnosperms, orchids and paintings/photographs of plants were displayed. Prof. Dinesh Kumar, NCERT, New Delhi participated at the valedictory function on 28.02.2015.

National Science Day
The National Science day was observed on 28.02.2015 in collaboration with Eco Roots Foundation and Centre for Environment Education, New Delhi. Several activities like bird watching, essay competition, drawing competition and slogan writing were conducted. Dr. Sheo Kumar delivered lecture on ‘Plant Science in India’, followed by Dr. A.A. Ansari, Ex-Scientist, BSI on ‘Importance of Plants and Conservation’ and Dr. K.S. Dogra, Scientist ‘C’ on ‘Environment, Biodiversity and Conservation’.

Regular maintenance work of the garden and introduction of 25 seeds of *Lunaria annua* (Brassicaceae), commonly known as ‘Silver Dollar’, ‘Honesty’ or ‘Annual Honesty’ (provided by Prof. B.A. Wani, Ex-Head, PG Environment Dept., S.P. College, Srinagar, Kashmir) were carried out. The work of transplantation of 1,235 plants/trees falling within the new Metro Route was started and almost 96% listed plants/trees and 100% of winter annuals were shifted to new selected sites/areas/beds. Further, certain areas were strengthened by transplanting *Melaleuca bracteata* and *Washingtonia robusta* and Bougainvilleas.

Dr. Kuldip Singh Dogra, Scientist ‘C’ collected seeds of eight plants, viz. *Abrus precatorius*, *Clitorea terneta*, *Datura metel*, *Lagerstroemia hypoleuca*, *Lagerstroemia speciosa*, *Tectona grandis* and *Terminalia arjuna*. Dr. Dogra recorded flowering of 27 trees/plants and 43 in fruit/seed setting stage. Besides, Dr. Dogra recorded 1st time flowering in *Desmodium oojeinensis* and bud formation in *Nerium indicum* and *Bridelia retusa*.

Visitors/Students
Total 2,017 students, teachers, Indian and foreign visitors visited the garden during this month.

In connection with the revisionary studies on Tribe *Helianthae* (Asteraceae), a herbarium consultation tour to CNH was undertaken by Sri Jeetendra Kumar Vaishya, SRF from 15.02.2015 to 02.03.2015. In connection with the ongoing projects on floral diversity of Upper Ganga Ramsar site, Uttar Pradesh; Flora of Chhattisgarh; Floristic diversity of Parvati Aranga Wildlife Sanctuary and adjoining Tikri forest area, Gonda, U.P. and Lichens of Rajasthan, Kutch, Gujarat, a total of 52 species were identified. Similarly, for the revisionary studies on the family Pertusariaceae as well as Roccellaceae; Taxonomic studies on lichenised non-thelotremoid Indian Graphidiaceae, and lichen of Terai region, Uttar Pradesh 10 species were identified along with 5 species of loan specimen obtained from PBL herbarium, PortBlair. In addition, a total of 416 earlier collected specimens belonging to 286 field numbers housed at BSA were identified.

The 125th birth anniversary of BSI was celebrated on 13.02.2015, as a part of this celebration, lectures were organized. Retd. Prof. D.R. Misra, Dept. of Botany, University of Allahabad; Dr. (Mrs.) Kumud Dubey, CSFER, Allahabad; Dr. H.P. Pandey, Asst. Prof., ISD college, Allahabad and research scholars/students of University of Allahabad and different colleges were invited. Besides, retired scientists of BSI, Dr. K.K. Khanna, Dr. B.K. Shukla, Dr. Anand Kumar, Dr. A.N. Singh and Dr. U.S. Vaish, all ex-BSI officials were also invited. Speakers and ex-scientists of BSI were felicitated during the 125th anniversary programme.
In connection with the workshop on Capacity Building Training Course in Plant Taxonomy at T.N.B College, Bhagalpur, Dr. G.P. Sinha, Scientist ‘E’ & HoO and Dr. Arti Garg, Scientist ‘D’ delivered lectures and conducted practical session training to trainees on the topics ‘Collection, Preservation and Identification of Lichens’ and ‘Palynology – Its application in stemming the dichotomy between Classical and Molecular Taxonomy’ on 26.02.2015 and 23.02.2015 respectively. Sri Siljo Joseph, SRF, also rendered help in conducting practical session on lichen at Bhagalpur.

Public service rendered
Identified 3 herbarium specimens received from Ms. Ruchi Singh Thakur, Research Scholar, Institute of Pharmasciences, Gurughasidas Vishwavidaylaya, Bilaspur, Chattishgarh.

Publications

DECCAN REGIONAL CENTRE, HYDERABAD

In connection with the ‘Flora of India Project’, Ms. Annamma, JRF carried out a field tour to Bellampalli Forest Division of Kawal Tiger Reserve from 04.02.15 to 11.02.15 and collected specimens of 30 field numbers and identified 25 species, whereas Sri Chandra Mohan, JRF carried out one field tour to Satkosia Tiger Reserve, Odisha from 29.01.2015 to 11.02.2015 and vouched 94 specimens and identified 21 species.

Dr. P.V. Prasanna, Scientist ‘F’ documented 24 species of orchids collected from Seshachalam Biosphere Reserve with the help of Dr. K. Prasad. Dr. L. Rasingam, Scientist ‘C’ documented 10 species collected from NSTR WLS.

The Regional Centre celebrated 125th Anniversary of BSI by inviting college students at LaCONES auditorium on 13th February 2015. On this occasion lectures were delivered and Dr. M. Sankara Rao, Pre. Asst. provided a demonstration on Herbarium techniques to the college students.

Dr. Prasanna delivered a lecture on ‘Collection, Preservation and Identification of Grasses’ in the Capacity Building Training Course held at T.N.B. College, Bhagalpur on 27.02.15 and also provided practical demonstration on ‘Preservation and Identification’ of grasses.
One field tour to Jarain and Dawki was undertaken on 14th February 2015 by Dr. A.A. Mao, Scientist ‘E’ & HoO and Dr. Deepu Vijayan, Scientist ‘B’ to collect Rhododendrons. One herbarium consultation tour to CNH, Howrah was undertaken by Dr. S.K. Singh, Scientist ‘D’ from 1st to 7th February 2015.

In connection with different Floras (Murlen National Park, Mizoram; South Garo Hills Dist., Meghalaya; Laokhowa Wildlife Sanctuary, Assam, Flora of Amchang Wildlife Sanctuary, Assam; Yangroupokpi Lokchao Wildlife Sanctuary, Manipur, Flora of Eastern Nagaland) 226 species were identified and 128 species were documented. Added 272 taxa belonging to 19 families with updated nomenclature, distribution and local names in Checklist of Flora of Nagaland.

In connection with the ex-situ conservation of endemic, threatened and economically important plants of the region and recording phenological data on flowering and fruiting period for species growing in Barapani Experimental garden, observed and recorded phenological data of 5 plant species growing in the garden.

Micro-propagation of RET species of NE India

For Cymbidium tigrinum, mature plants raised in-vitro were transferred to greenhouse (about 10 plantlets); for Armodorum senapatianum, subculture was continued at regular intervals and observations were also recorded; for Rhododendron coxianum, mature plants raised in vitro were transferred to greenhouse (about 15 plantlets).

Public service rendered

Identified 04 plant specimens for the students of pharmacy college. Dr. P. Venu, Scientist ‘F’ & HoO, reviewed a project proposal on Short-term funding, a true boost, to students pursuing plant taxonomy at master’s level (M.sc.). Dr. Venu also reviewed a manuscript on Indian Myristicaceae for Rheedia.

EASTERN REGIONAL CENTRE, SHILLONG

Identified 04 plant specimens for the students of pharmacy college. Dr. P. Venu, Scientist ‘F’ & HoO, reviewed a project proposal on Short-term funding, a true boost, to students pursuing plant taxonomy at master’s level (M.sc.). Dr. Venu also reviewed a manuscript on Indian Myristicaceae for Rheedia.

Public service rendered

Identified 04 plant specimens for the students of pharmacy college. Dr. P. Venu, Scientist ‘F’ & HoO, reviewed a project proposal on Short-term funding, a true boost, to students pursuing plant taxonomy at master’s level (M.sc.). Dr. Venu also reviewed a manuscript on Indian Myristicaceae for Rheedia.
For project related to Micropropagation, Phytochemical Screening of Medicinal Plants and Molecular Characterization of selected species of NE India, the extracted DNA of Paphiopedilum venustum from Meghalaya and Arunachal Pradesh, Ormosia robusta (from Baghmara and Balphakram National park, Garo hills, Meghalaya) was quantified on 0.8% agarose gel and documented. DNA extraction was done with different modified CTAB buffer for standardization of getting good quantity and quality. DNA was also extracted from leaf samples of Rhododendron formosum var. formosum and R. formosum var. inaequale. Regular maintenance of initiated cultures of Paris polyphylla in MS medium was being continued. In-vitro raised seedlings of Pyrenaria khasiana was being regularly subcultured and maintained.

The Centre celebrated 125th Anniversary of BSI 13.02.15. Dr. A.A. Mao, Scientist ‘E’ & HoO and Dr. S.K. Singh, Scientist ‘D’ gave short speeches on the history and development of the department. A quiz competition based on BSI’s history was conducted and prizes were distributed to the winners. Dr. Mao delivered a lecture on ‘Conservation of Threatened Plants using Tissue Culture Techniques’ on 23.02.15 in the Capacity Building Training Course held at T.N.B. College, Bhagalpur.

Public service rendered
Identified 4 samples of plant specimens received from various institutions.

Visitors/students
Two Professors, two Research Scholars and 29 students from various institutions, colleges and Universities visited.

Publication

NORTHERN REGIONAL CENTRE, DEHRADUN

Identified 81 and described 87 species of Angiosperms in connection with the ongoing projects on Flora of Uttarakhand, Flora of Kalesar National Park, Floristic Diversity and Phytosociological study of Simbalbarra National Park, Flora of Nandhour Wild Life Sanctuary, Flora of Sonanadi WLS, Revisionary study Bignoniaceae and Tree ferns of India and genus Lepisorus in India.


Hindi Karyashala
The centre organized Hindi Karyashala on 24.02.2015 and Dr. D.N. Tiwari, Associate Professor in Hindi, P.G. College, Doiwala gave a lecture in the Karyashala.
Lecture delivered
Dr. S.K. Srivastava, Scientist ‘E’ & HoO delivered a lecture on ‘Medicinal Plant Diversity in Uttarakhand and Conservation Strategies: An Overview’ in a symposium held at University of Pharmacy, Tirthankar Mahavir University, Moradabad on 07.02.2015.
Dr. B.S. Kholia, Scientist ‘D’ delivered a lecture on ‘Collection, Preservation and Identification of Ferns’ in the Capacity Building Training Course on 25.02.15 held at T.N.B. College, Bhagalpur. Dr. Kholia also provided practical demonstration on ‘preservation and identification of Ferns’ after lunch break.

Public services rendered
Dr. P.K. Pusalkar, Scientist ‘D’ assisted Prof. G.S. Rawat, Scientist ‘G’, Wildlife Institute of India in identification of Saussurea species collected from Uttarakhand and assisted Sri Satish Chandra Semwal, Ph.D. research scholar of G.B. Pant University of Agriculture & Technology, Pantnagar in identification of Caryophyllaceae members collected from Uttarakhand.
Dr. P.K. Pusalkar also attended a batch of 40 Forest Rangers lead by Shri C.K. Kavidayal, IFS from Uttarakhand Forestry Training Academy, Haldwani, who visited BSI on 02.02.2015.

Identified Euphorbia thymifolia for Rishabh Dobriyal, B. Pharma student, Dev Bhoomi Institute of Pharmacy & Research, Dehradun; Tectona grandis for Saurabh Sekhar, Shokeen and Shekhar Kumar, B. Pharma students from Dev Bhoomi Institute of Pharmacy & Research, Dehradun; Agave americana for Devesh Tiwari, Research Scholar, Chemistry Div., FRI, Dehradun; Allium corolinianum and Clematis connata for Upendra P.B, Research Scholar, Chemistry Dept., H.N.B. Garhwal University; Dendrobium amoenum and Eria alba for Darshan Singh, Research Scholar, Chemistry Dept., H.N.B. Garhwal University; Calotropis gigantea for Kundan Singh, B. Pharma student, Dev Bhoomi Institute of Pharmacy & Research, Dehradun; Cassia surattensis for Amit Lohani, B. Pharma student, Dev Bhoomi Institute of Pharmacy & Research, Dehradun; Ficus auriculata for Yogesh Tiwari, B. Pharma student, Dev Bhoomi Institute of Pharmacy & Research, Dehradun.


Publications

**SIKKIM HIMALAYAN REGIONAL CENTRE, GANGTOK**

Dr. M. Gangopadhayay, Scientist ‘D’ & HoO prepared 77 sketches of Rubiaceae members in connection with the project— ‘Family Rubiaceae for Flora of India’.

Dr. D.K. Agrawala, Scientist ‘C’ studied 50 orchid specimens and finalized their identity, assigned geo-coordinates and entered the data in excel sheet for the project - ‘Red listing of Orchids of Eastern Himalaya as per IUCN criteria’. 77 Orchid specimens were brought live from West Kameng district of Arunachal Pradesh, and introduced in the campus of BSI, SHRC for further study and ex-situ conservation. Dr. Agrawala conducted herbarium consultation at CAL, ARUN, APFH, OHT, ARRI, NERIST, and Rajiv Gandhi University, Itanagar and studied 5738 specimens. Dr. Agrawala also identified and illustrated two orchid species viz. *Cymbidium whiteae* and *Bulbophyllum careyanum* being grown in the orchid house of BSI, SHRC.

In connection with the project ‘Flora of Shingba Rhododendron Sanctuary’, Dr. Chandan Singh Purohit, Bot. Asst. identified 350 specimens belonging to 187 species. Dr. Purohit also recorded phenology of 50 EET species in the Campus Garden.

Dr. Agrawala delivered a lecture on ‘Collection, Preservation and Identification of Orchids’ on 23.02.2015 in the Capacity Building Training Course held at T.N.B. College, Bhagalpur. Dr. Agrawala also provided practical demonstration on preservation and identification of Orchids after the lunch break.

The 125th Anniversary of BSI was celebrated at SHRC on 13th February, 2015. A regional interactive meet on ‘Documentation and Conservation of Phyto-diversity in Sikkim Himalaya’ was organized, where Dr. H. K. Badola, Scientist-in charge, GBPIHED, Gangtok., Mrs. Usha Lachungpa, Principal Research Officer, Forest Department, Sikkim, Dr. Shyamli Chakraborty, Principal Scientist, NRCO, Pakyong, Dr. J. K. Shukla, Scientist, RCIBSD, Gangtok and Dr. S.K. Rai, Assistant Professor, Botany Department, Sikkim University, Gangtok were invited. Dr. D. K. Agrawala, delivered a lecture on ‘Status of Documentation of Phytodiversity in Sikkim Himalaya’ by highlighting the important achievements of BSI in this subject, ongoing projects and recent curious findings.
**Visitor/student**
One Research Scholar from Department of Science and Technology, Government of Sikkim has visited this centre and learnt about herbarium techniques and ex-situ conservation practices.

**Publications**

**SOUTHERN REGIONAL CENTRE, COIMBATORE**
Plant exploration tour was conducted from 18th to 25th February 2015 to Point Calimere Wildlife Sanctuary, Tamil Nadu and collected specimens of 60 field numbers. Dr. K.A.A. Kabeer, Scientist ‘D’ and Sri G. Gnanasekaran, Bot. Asst. conducted field tour to Srivilliputhur Grizzled Giant Squirrel Wildlife Sanctuary, Tamil Nadu from 18th to 28th February 2015 and collected specimens of 121 field numbers.

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*Vanda tessellata* collected from Point Calimere WLS

*Olax scandens* collected from Point Calimere WLS

*Capparis brevispina* (Capparaceae)

*Strychnos potatorum and S. nux-vomica* collected from Point Calimere WLS
Under ‘Ex-situ conservation of endangered and threatened plants’, 12 Orchids and 8 other taxa were collected and introduced at National Orchidarium and Experimental Garden (NO & EG), Yercaud by Dr. S. Kaliamoorthy, Scientist ‘D’, Sri B.S. Elango, Garden Supervisor and Sri T.S. Saravanan, Pres. Asst. They also multiplied 165 samples (including 54 samples of orchids), transplanted 35 samples, and developed seedlings (14 nos.), cuttings (62 nos.) and recorded the phenology of 18 species including 8 orchids and 10 species of angiosperms in the garden.

A total of 386 Sri Lankan type specimens were barcoded and details were entered in type data base (Barcode Nos. MH00002788 – MH00003175) by Ms. R. Mehala Devi, Sr. Pres. Asst. Besides, 01 isotype (Alysicarpus sanjappae) was accessioned and deposited in Type section of MH.

On the occasion of 125th Anniversary of BSI, a Plant exhibition was organized on 13.02.2015 at SRC, Coimbatore. 130 Students, 05 Research Scholar’s and 08 Teachers/ Professors from different institutions in Kerala and Tamil Nadu participated.

**Seminar/ symposia/ workshop**

Dr. M. Palanisamy, Scientist ‘D’ delivered a lecture on ‘Bioresource wealth of Antarctica’ to the young trainees (30 Nos.) in the National level workshop—‘In glass Technology for Bioresource Conservation’ on 3rd February 2015, organized by Dept. of Biotechnology, St. Joseph’s College, Thiruchirappalli.

Dr. S. Kaliamoorthy, Scientist ‘D’ delivered a lecture on ‘Identification of Orchids and their propagation methods’ to B. Sc. (Hort.) students of Horticultural College and Research Institute (Woman), TNAU, Thiruchirappalli on 5th February 2015.

**Public service rendered**

Identified 65 plant samples received from various colleges, universities and institutions and also supplied a total of 310 photocopies of literature. Dr. J.V. Sudhakar accompanied students of Bharathidasan University, Trichy as a resource person to Palani hills from 18th to 22nd February, 2015 and collected specimens of 65 field numbers including Endemic, Vulnerable, and rare plants (Sonerila pulneyensis – Melastomataceae; Anoectochilus elatus – Orchidaceae; Plectranthus bourneae – Lamiaceae; Cheirostylis flabellata – Orchidaceae and Peperomia dindigulensis – Piperaceae) and introduced in BSI, Coimbatore garden as well as in NO & EG Yercaud.

**Visitors/students**

Total 339 students / research scholars / lectures / scientists visited the herbarium and library of MH, while 797 persons in 134 parties visited NO & EG, Yercaud.
Dr. Rashmi Dubey, Scientist ‘D’ conducted Fungal exploration tour to various protected forest areas of Western Ghats of Maharashtra, such as Radhanagri WLS (Kolhapur Dist.), Chandoli NP (Sangli Dist.), Koyna WLS (Satara Dist.) and their adjoining areas from 08.02.2015 to 14.2.2015. Dr. Dubey covered an area of about 40 Sq. Kms. and collected specimens from 172 host plants (field Nos.) + 12 dry host plant specimens during the tour.

Dr. S.K. Das, Scientist ‘B’ conducted one herbarium consultation tour to Central National Herbarium, Howrah from 07.02.2015 to 22.02.2015.

During this month, about 101 angiosperm specimens, 10 pteridophyte specimens and 10 fungi species were identified by the scientists, scientific staff and research scholars of this centre.

Dr. A. Benniamin, Scientist ‘D’ & HoO studied the spores (Microspores and Megaspores) of *Isoetes coramandelina* and taken photographs under Scanning Electron Microscope (SEM) in connection with the Pteridophytic flora of Karnataka.

Dr. J.S. Jalal, Scientist ‘C’ prepared colour illustrations for 25 orchid species under the ‘Orchids of Maharashtra’.
125th anniversary of Botanical Survey of India was celebrated at WRC, Pune on 13th February 2015. On this occasion Dr. M.K.V. Rao, Ex-Joint Director was invited as Chief Guest, who delivered lecture on ‘Plant Nomenclature’. Dr. Benniamin, delivered a lecture on ‘Fern diversity of Western Ghats’. Video show of Herbarium Methodology, Ethnobotany of North – East States were also shown to the students from Wadia College, Pune and Modern College, Pune.

Seminar attended/lecture delivered
Dr. J.S. Jalal attended a National Conference on Orchids Science and Commerce held at Shri. Mata Vaishno Devi University, Kakryal, Katra (J & K) from 13th to 15th February 2015 and presented a paper on ‘Regional Conservation Assessment and Prioritization of Endemic Orchid Species of Western Ghats in Conservation Zones in Maharashtra’.

Dr. A. Benniamin, attended National Seminar on ‘Science Led Development and Environment Sustainability’ on 21st and 22nd February, 2015 held at INSA, New Delhi and presented a paper on ‘Ecology and Distribution of Pteridophytes in Western Ghats, India’.

Dr. Benniamin also received Scientist of the year 2014 from National Environmental Science Academy during the National Seminar.

Public service rendered
Identification and authentication of plant specimens were done for research students, B. Pharm. and M. Pharm. students. Advisory services and consultation of herbarium and library services were rendered for scientists and research students of various colleges and institutes.

Visitors/students
About 200 visitors and students visited WRC during this month, which includes scientists and research students from Shri B. M. Kankanawadi Ayurveda Mahavidyalaya, Belgaum, Karnataka; Pune University, Maharashtra; Indian Institute of Science Education and Research (IISER), Pune; Agharkar Research Institute (ARI), Pune; Wadia College, and Modern College, Pune.
पीठों की सही पहचान हो, मिले संरक्षण

• पीठों की पहचान पर बॉट्नी के वैज्ञानिकों का मतन

• अध्ययन का उद्देश्य त्योहार

• देश की तरह भाग नीति के लिए ग्रामीण का निभाया जाएगा।

• अहमदाबाद बॉट्नी अध्ययन के लिए तीन सप्ताह के लिए तैयारी की जा रही है।

• देश की तरह भाग नीति के लिए ग्रामीण का निभाया जाएगा।

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A glimpse of ‘Capacity Building Training Course In Plant Taxonomy’ at T.N.B. College, Bhagalpur
Thanks to all the scientists and staff of various regional centres and units of Botanical Survey of India for contributing to this newsletter

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