



BSI NEWSLETTER

The monthly electronic newsletter of Botanical Survey of India

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Director's Column

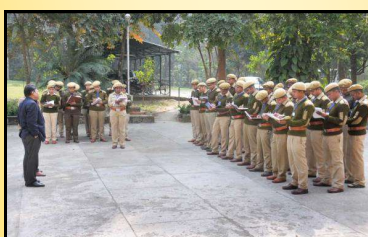
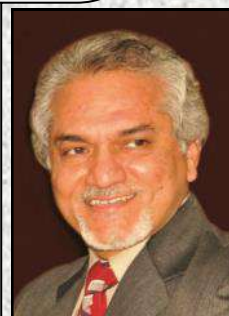
On the occasion of the 125th Anniversary, two-day programme was organised on 13th and 14th February 2015 at Asutosh Birth Centenary Hall, Indian Museum, Kolkata. In this programme, 'National Dialogue on Plant Taxonomy and Conservation (NDPTC) cum Exhibition' was arranged to review the status of the knowledge 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

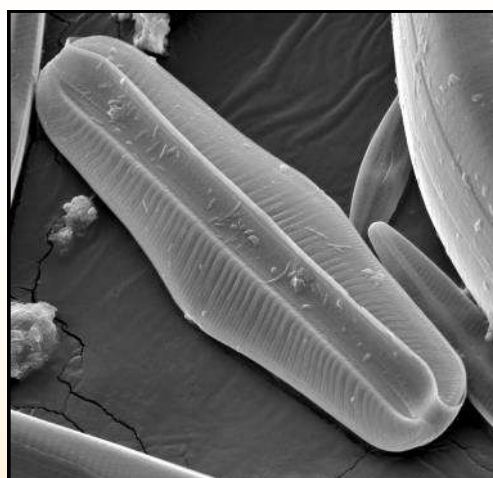




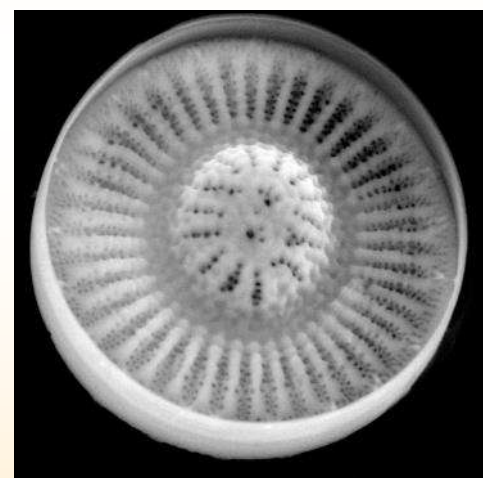
Sri Ashok Lavasa,
Secretary,
MoEF&CC, New Delhi
inaugurating the
exhibition during
125th Anniversary of
BSI at Asutosh Birth
Centenary Hall at
Indian Museum,
Kolkata on 13th
February 2015
Sri Hem Pande,
Addl. Secretary,
MoEF&CC,
Dr. K. Venkataraman,
Director, ZSI,
Dr. Paramjit Singh,
Director, BSI and
various other
dignitaries present
on this occasion

HEAD QUARTERS, KOLKATA

In connection with the ongoing projects on 'Algal Flora of Jharkhand, Taxonomic diversity and ecology of cyanobacteria and algae in the alpine regions of Eastern Himalayas, Wild mushrooms of Sikkim, Liverwort & Hornwort Flora of Sikkim, Wood rotting fungi of Rajmahal hills, and Wood Rotting Fungi of Koderma Wildlife Sanctuary', identification of specimens, descriptions, SEM study and illustrations are being carried out by the scientists and scientific staff and postdoctoral fellows.



Pinnularia gibba - Diatom (SEM)



Cyclotella meneghiniana - Diatom (SEM)

Workshop/Training

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.



Inauguration ceremony of the Training Course

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.



Dr. Kanad Das conducting practical class on 'Macrofungi'

Publication

Das, K. and Chakraborty, D. 2015. Two new records of *Cortinarius* from Sikkim (India). *J. New Biol. Rep.* 4(1): 1–6.

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'.

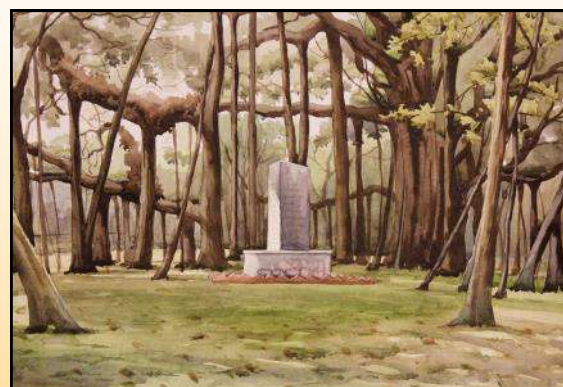


A view of Pakhui Tiger Reserve along the Kameng River, Arunachal Pradesh

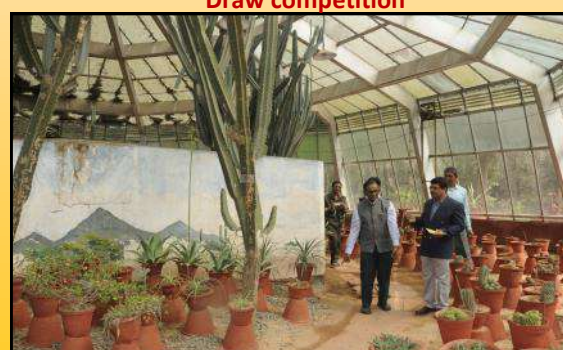


Visit of Ex-Directors and Ex-scientists to AJCBIBG

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.



A painting drawn during the Sit and Draw competition



Evaluation of different divisions of IBG



Book release: "Bamboos of Meghalaya" by Pushpa Kumari and Paramjit Singh during 125th Anniversary celebration

A book on "Bamboos of Meghalaya" written by Dr. Pushpa Kumari, Scientist 'C' (co-author Dr. Paramjit Singh) was released on the occasion 125th Anniversary celebration.

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

Kumari, P. and Singh, P. 2015. *Bamboos of Meghalaya*. Botanical Survey of India, Kolkata.



Holmskioldia sanguinea (Verbenaceae) introduced as wild ornamental plant in the garden

CENTRAL NATIONAL HERBARIUM, HOWRAH

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.



Portion of the exhibition displayed by scientists and scientific staff of CNH during 'National Dialogue on Plant Taxonomy and Conservation in India cum Exhibition'

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.

On 22nd February 2015, Dr. Sampath Kumar, Dr. D. Singh, Dr. (Mrs.) Das Chowdhury, Sri Gopal Krishna and Sri Anand Kumar conducted field trip to Mandar hills, Banka Forest Division along with the participants to impart training on plant collection identification techniques. In the field, the participants were explained about the collection methods as well as data to be noted in field notebook including usage of the GPS.

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'.

Scanning Electron Microscopy

Scientists and research scholars micro-graphed total 18 samples by using SEM installed at CNH, which include pollens of *Memecylon spp.*, leaves and spikelets of *Festuca spp.* and spores of Liverworts and Hornworts.

Public service rendered

Dr. V. Sampath Kumar reviewed an article on Ethno-medicinal plants in Boriband forest of Korea Dist., Chhatrisgarh for the *American Journal of Plant Sciences*.

Sent protologues, literature and digital images to Dr. N. Sasidharan (KFRI, Peechi), Sri M.K. Vasudeva Rao (Ex-Joint Director, BSI, Pune), Prof. S.R. Yadav (Shivaji University, Kohlapur), Dr. Mac. H. Alford (University of Mississippi, U.S.A.), Dr. Martin W. Callmander (Missouri Botanic Garden, U.S.A.), Ms. S. Resmi (University of Calicut, Kerala), Dr. Suchandra Dutta (R.D. National College, Mumbai) and Dr. P. Daniel (Ex-Joint Director, BSI).

Issued 2 plant identification certificates to the students in connection with their research work.

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 Bhalotia 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

Paul, T.K., Lakshminarasimhan, P., Chowdhery, H.J., Dash, S.S. and P. Singh (Eds.). 2015. *Flora of West Bengal, vol. 2 (Leguminosae – Aizoaceae)*. Botanical Survey of India, Kolkata.

Ranjan, V. and Anant Kumar 2014. *Scurrula gracilifolia* (Loranthaceae): A new distributional record from Gorumara National Park, West Bengal. *Indian J. Forestry* 37(4): 429–430.

Ranjan, V. and Anant Kumar 2014. Additions to the Flora of West Bengal. *Indian J. Forestry* 37(3): 307–308.

Halder, S., Anant Kumar, Sangita Dey and Venu, P. 2014. Lectotypification of *Fimbristylis tenera* (Cyperaceae). *Phytotaxa* 188 (5): 287–291.

Prasad, V.P. 2014. Notes on the distribution of *Cyperus ohwii* and lectotypification of *C. elatus* var. *macronux* (Cyperaceae). *Rheedea* 24(2): 105-107.

CENTRAL BOTANICAL LABORATORY, HOWRAH

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.



Ethnobotanical exhibits displayed at exhibition

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

Sujana K.A., Saravanan, R. and Pandey, A.D. 2015. Distribution of Aquatic Macrophytes in Balasore, Odisha. In: M. Rawat, S. Dookia and C. Sivaperuman (eds.), *Aquatic Ecosystem: Biodiversity, Ecology and Conservation*. Pp. 1–2. Springer, India.

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

Daimary, R. and Sinha, B.K. (2014) 2015. New distributional record of rare species *Amomum pauciflorum* Baker (Zingiberaceae) from Assam, India. *J. Non Timber For. Prod.* 21(3): 179–180.

**Botanical Survey of India, Kolkata
Industrial Section, Indian Museum**

The Economic Botany Gallery, with an excellent effort and scheme of Sir George Watt was opened to public in the large hall of 2nd floor on 29th May, 1903 with 13 exhibits arranged scientifically in 4 Rays under different categories, viz., (i) Gum, Resin, India Rubber, Lac, Kino (ii) Oils, Oilsseeds, Oilcakes, Soaps & Waxes (iii) Dyes and Tans etc. (iv) Fibres, Silk, Cotton, Jute, Wool (v) Medicinal products and indigenous drugs (vi) Narcotics, Opium, Indian hemp, Tobacco (vii) Food substances, sugar, starch, cereals (viii) Indian Timbers.

Post Second World War, Mr. S. N. Bal served as Curator from 1942 to 1947, followed by Mr. K. S. Srinivasan who continued about two decades on the post and gave present shape to this Botanical Gallery.

The Botanical Gallery also have some important displays such as 'Story of Paddy', 'Story of Lac', 'Story of Sugarcane', 'Story of Arrowroot', 'Tea Story', 'Match box story', 'Story of Jute', 'Story of Cotton', 'Story of Indigo' which elaborates the stages involved 'from grower to consumer' or 'from field to factory'.

Rare Holdings: Some rare holdings of Botanical Gallery includes J. Forbes Watson's (1866) 'Textile Fabrics of India' (18 vols.) and 'Textile manufacturers and embroideries' (2 vols.); Thomas Wardle's (1876) 'Fabrics dyed with Indian dyes' (15 vols.) and the Watt's 'Agricultural Ledger's' which has been the data source of publication of Watt's 'Dictionary of Economic Products of India' (8 vols., 1889-1896) and its abridged 'The Commercial Products of India' (1 vol., 1908).

Plant Socio-economic products include common food products (varieties of paddy and wheat, common vegetables, fruits of tropical regions), suitable design (ready-dyes and their products), Orichona and its products (plant related industrial materials (paper and paper materials, silk products, fibre, silk industry products, leather products), oil (essential and vegetable) (keep an important insight on the varied use of plants). The other attraction of Botanical Gallery are model of Goddess 'Durga' made of jute-fibre, Coconut husk and bamboo, handicrafts, wooden toys (crabs, ravens), & Opium products, Palm and Agave products, etc.

Lodicea maldivica (Arecaceae): A wonder of nature
Lodicea, commonly known as double coconut, an endemic species to the island of Praslin and Curieuse in Seyshelles. It is one of the most universally well known plant and holds botanical records.
*C The largest fruit, weighs upto 43kg.
*C The heaviest & largest seed, weighs upto 17.6kg.
*SM The largest female flower of any palm.

Publications: The 'Quinine Market' producing maximum of the 19th Century; different aquatic illustrations in form of pills & the Cinchona Bark; Goddess Durga made of jute.

Research: Research activities are carried out Economic Botany, Ethnobotany and Taxonomy of Angiosperms. Several monographs, catalogues, reports and scientific papers have been published based on the research work undertaken in this section.

Library: An excellent, well catalogued Library catering various needs of researchers, students and teaching staff from colleges and universities and other institution can also avail library facilities. The facilities are also extended to public to a limited extent.

Other exhibits: Film section stores both conventional & microfilm records of flora; A glimpse of the economic timbers displayed based on the mode of uses; Model displaying the production of Indigo from *Indigofera tinctoria* (Fabaceae); A grapes of Thomas Wardle's book showing cloth samples dyed with Indigo, Turmeric & Cinchona and their different combinations; J. Forbes Watson Embroidery collection; Agricultural Ledger of Sir George Watt.

Other items: Large woody stem found in South India, palea specimen in length; Small model of Quercus and other; *Zizania (Strawgrass)*.

Facsimile of brochure on Botanical Gallery

ANDAMAN AND NICOBAR REGIONAL CENTRE, PORTBLAIR

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.



Chief guest's address by Dr. N.B. Singh



Sri C.P. Vivek delivering presentation on 'Botanical Survey of India – Brief History'

ARUNACHAL PRADESH REGIONAL CENTRE, ITANAGAR

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.



Asplenium nidus



Blechnum orientale



Platyterium wallichii

125th birth anniversary of Botanical Survey of India was celebrated at APRC 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 Polyodiaceae 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'.



Dr. P. Satyanarayana delivering the welcome address

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

Bhaumik, M. and Satyanarayana, P. 2014. Nine new records for Indian flora. *Indian J. Forest.* 37(4): 413-418.

Bhaumik, M. and Satyanarayana, P. 2014. *Pterygiella* Oliver (Scrophulariaceae) and *Pogonia* Jussieu (Orchidaceae) - Two generic records for Indian flora. *Indian J. Forest.* 37(3): 299-302.

Borah, S., Gogoi, R., Satyanarayana, P. and Yu, S.X. 2015. Lectotypification of the name *Impatiens toppinii* Dunn, a new addition of the species for flora of India, *Telopea* 18: 33-37.

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.



AZRC Staff with ex-scientists on the occasion of 125th Anniversary



Plantation programme at AZRC Botanic garden on the occasion of 125th Anniversary of BSI



Students at AZRC Museum on the occasion of 125th Anniversary of BSI



Students at Herbarium (BSJO) on the occasion of 125th Anniversary of BSI

BOTANIC GARDEN OF INDIAN REPUBLIC, NOIDA

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 Mahotsawa 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.



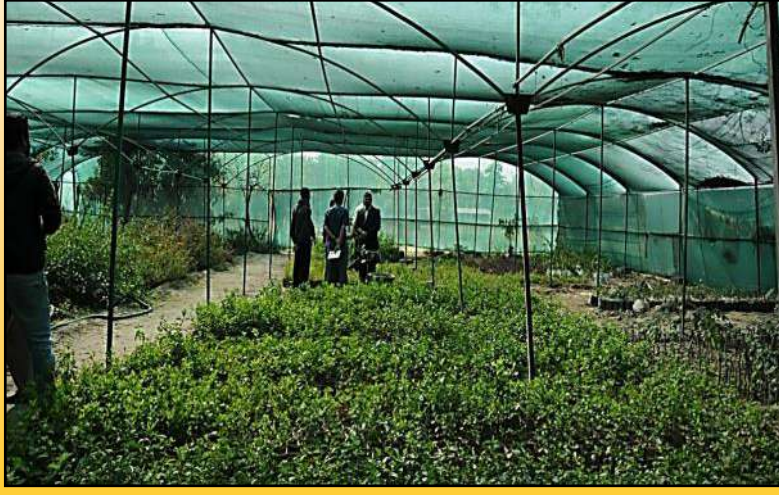
Dr. Sheo Kumar delivering presentation on the occasion of the 125th Anniversary of BSI



Film show screened at BGIR, Noida



Dr. Sheo Kumar explaining about the exhibits



A view of nursery at BGIR, Noida

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.

नोएडा, 13 फरवरी (ब्यूरो):
सेक्टर 37 स्थित बॉटेनिकल गार्डन ने शुक्रवार को अपना 125वां स्थापना दिवस मनाया। इस अवसर पर रंगारंग कार्यक्रमों की शुरुआत सुबह साढ़े दस बजे से शुरू हो गई और शाम के साढ़े 5 बजे तक चली। इस मौके पर साढ़े दस बजे से 11 बजे तक गार्डन में बर्थ प्लेस ऑफ बॉटेनिकल सर्वे ऑफ इंडिया विषय पर परिचर्चा का आयोजन किया गया। उसके बाद 11 बजे से 11.30 बजे तक गार्डन से संबंधित फिल्में दिखाई गईं।

11.30 बजे से 11.45 तक गार्डन के दुर्लभ पौधों की खूबसूरत फोटो प्रदर्शनी भी लगाई गई जहां लोगों ने उसके महत्त्व के बारे में जाना। उसके बाद 12.10 बजे से 1 बजे तक पौध रोपण कार्यक्रम चलाया गया। जिसके तहत कार्यक्रम में शामिल होने वाले गणमान्य अतिथि पौधे लगाए। बॉटेनिकल गार्डन के मुख्य वैज्ञानिक डॉ. शिवकुमार ने बताया कि मुख्य समारोह कोलकाता के इंडियन म्यूजियम में आशुतोष बर्थ सेंटर हॉल में आयोजित किया जाएगा। 15 फरवरी तक चलने वाले इस समारोह में तरह-तरह के कार्यक्रमों का आयोजन किया जाएगा। वन, पर्यावरण मंत्रालय के सचिव मुख्य अतिथि के तौर पर मौजूद रहेंगे।

■ बर्थ प्लेस ऑफ बॉटेनिकल सर्वे ऑफ इंडिया पर की परिचर्चा

CENTRAL REGIONAL CENTRE, ALLAHABAD

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 Graphidaceae, and lichen of Terai region, Uttar Pradesh 10 species were identified along with 5 species of loan specimen obtained from PBL

herbarium, Port Blair. 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.



Prof. D.R. Misra delivering lecture during 125th anniv. celebration



Interaction session after lectures during 125th anniv. celebration

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.



Dr. G.P. Sinha delivering lecture in the Capacity Building Training Course

Public service rendered

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

Publications

Singh, R.K. and Singh, V. 2014. Ethnomedicinal plants of Valmiki Tiger Reserve, West Champaran district, Bihar, India. *J. Non Timber For. Prod.* 21 (3): 185–192.

Singh, R.K. and Garg, A. 2014. *Curcuma mukhranae* (Zingiberaceae), a new species from Western Ghats, India. *Ind. J. Forestry* 37 (4): 419–422.

Singh, R.K. 2015. Lectotypification of some Indian *Ceropegia* (Apocynaceae). *Phytotaxa* 197 (2): 157–160.

Singh, R.K., Garg, A. and Singh, P. 2015. Lectotypification and a new synonym of *Ceropegia kachinensis* (Apocynaceae). *Phytotaxa* 197 (3): 215–221.

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.



A student presenting her view on Biodiversity and Conservation



Dr. M. Sankara Rao demonstrating about herbarium to the students

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 *Rheedeia*.

EASTERN REGIONAL CENTRE, SHILLONG

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; Yangoupokpi 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).



***Rhododendron formosum* var. *inaequale* flowering under cultivation at ERC**



***Bergenia ciliata* flowering at ERC garden**

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.



Dr. A. A. Mao, Scientist 'E' & HoO addressing during 125th anniversary

Prize distribution to the winners of quiz competition

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

Talukdar, A.D., Verma, D., Roy, K.D., Choudhury, M.D. and Sinha, B.K. 2015. A new variety of *Molinieria prainiana* Deb (Hypoxidaceae) from Northeast India. *J. Jap. Bot.* 90: 61–65.

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 Simbalbara 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.



A view of Pin Valley (Lahaul-Spiti)



***Saxifraga lilacina* – a rare species in Uttarakhand**

The centre observed 125th Anniversary of BSI and organized a symposium, 'National Dialogue on Plant Taxonomy and Conservation' on 13th February 2015.

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.



Scientists, scientific staff and scholars during the 'National Dialogue on Plant Taxonomy and Conservation'

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.



Dr. P.K. Pusalkar delivering a lecture-cum-presentation to Forest Rangers



Officers and staff during the Hindi Karyashala

Dr. P.K. Pusalkar, Dr. Achuta N. Shukla, Bot. Asst., Dr. Brijesh Kumar, Bot. Asst. helped Sri Harish Chand Anand, Asstt. Professor H.P. University Shimla in identification of 22 specimens collected from Lahaul, Himachal Pradesh.

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.



Dr. S.K. Srivastava interacting with Forest Rangers during their visit to NRC, Dehradun

Publications

- Dutta Pramanick, D. and Srivastava, S.K. 2015. Pharmacognostic evaluation of *Withania coagulans* Dunal (Solanaceae)—An important ethnobotanical Plant. *Bioscience Discovery* 6(1): 6–13.
- Panwar, G. S. and Guru, S.K., 2015. Stimulation of reserpine production in the whole plant culture of *Rauwolfia serpentina* L. by elicitors and precursor feeding. *J. Pl. Biochem. Biotechnol.* 24(1):49–55.
- Madhukar, V.K., Srivastava S.K. and Dubey, N.K. 2015. Typification of *Bignonia africana* Lam. (Bignoniaceae). *J. Jap. Bot.* 90: 52–54.

SIKKIM HIMALAYAN REGIONAL CENTRE, GANGTOK

Dr. M. Gangopadhyay, 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.



Bulbophyllum careyanum growing on a tree trunk



Cymbidium whiteae - a less known endemic orchid of Sikkim

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

Agrawala D.K., Dhar, B.P., Rath, C. and Verma, S.C. 2015. Issues to be addressed for Cultivation and Conservation of Indian medicinal plants. In *Conservation, Cultivation and Exploration of therapeutic potential of medicinal plants*. Pp 291–300. Department of AYUSH, New Delhi. ISBN: 978-93-83864-03-4.

Agrawala D.K. 2014. Extended distribution of *Eria globulifera* Seidenf. (Orchidaceae). *Indian J. For.* 37(4): 435–437.

Kumar, V., Lawkush, Agrawala, D.K. and Bankoti, N.S. 2014. *Eulophia ochreatea* Lindl. (Orchidaceae) – A new record for North-East India. *Indian J. For.* 37(3): 325 – 328.

Purohit, C.S. 2014. *Rhododendron arboreum* Sm. – an economically important tree of Sikkim. *Popular Kheti* 2(3): 193-198. (In Hindi).

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.



Capparis brevispina (Capparaceae)



Strychnos potatorum and *S. nux-vomica* collected from Point Calimere WLS





***Canavalia virosus* (Fabaceae)**



***Cheirostylis flabellata* (Orchidaceae) collected from Palani hills**

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.

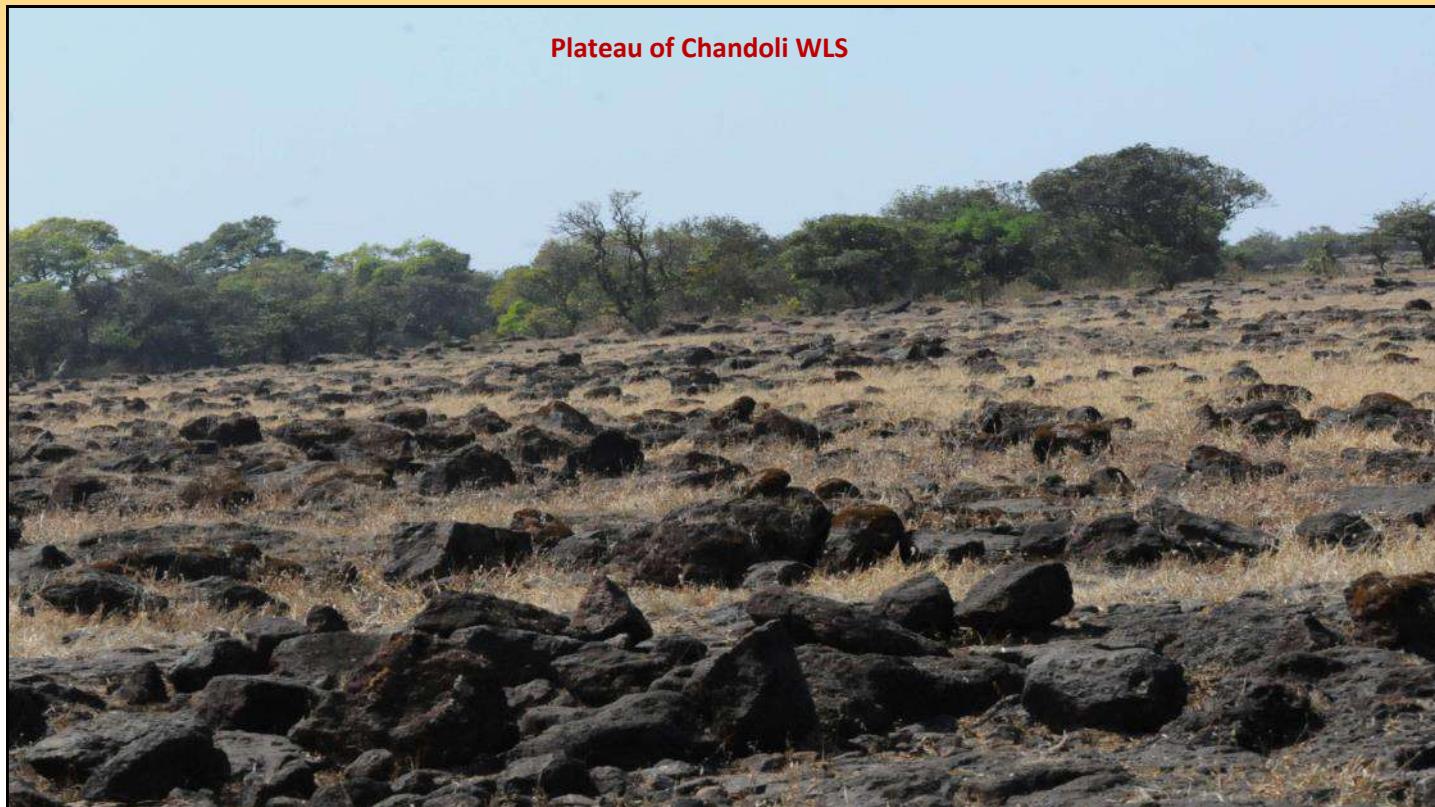
Visitors/students

Total 339 students / research scholars/ lectures / scientists visited the herbarium and library of MH, while 797 persons in 134 parties visited NO & EG, Yercaud.

WESTERN REGIONAL CENTRE, PUNE

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.

Plateau of Chandoli WLS



Black mildews of *Lagerstroemia microcarpa*



Powdery mildew of *Hemidesmus indicus*

Dr. S.K. Das 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.



Dr. A. Benniamin receiving Best Scientist of the year Award 2014

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.

PLANT OF THE MONTH

Monodora myristica (Gaertn.) Dunal (ANNONACEAE) Known as Calabash nutmeg or African Orchid is native of Tropical Africa. Seeds are widely used in West Africa as a substitute for nutmeg in soups, stews and cakes. In A J C Bose Indian Botanic Garden, it was introduced from Agri - Horticultural Society of India, Alipore, Kolkata.

By Dr. B.K. Singh

News release

नागवपुर, खंडिखार, 21 फरवरी, 2015
www.prabhatkhabar.com 04

प्रभात खबर \ कैंपस

टीएनबी कॉलेज में आयोजित राष्ट्रीय कार्यशाला में बोले शिवाजी विवि के प्रो यादव
मनुष्यों को बचाने के लिए पौधों को बचाना जरूरी

वैदिक संवादात्मक भागलपुर

शिवाजी विश्वविद्यालय, कोलकाता के वनस्पति विज्ञान विभाग के अध्यक्ष प्रो एसआर यादव ने कहा कि मानव अस्वास्थ्य को बचाने के लिए पौधों को बचाना जरूरी है, शरीर पर अब तक 1.7 मिलियन के लगभग पौधों का वर्गीकरण हो चुका है, फिर भी अनजानता पौधे बचे हुए हैं, जिन तक वैज्ञानिकों की पहुंच नहीं हो सकी है, इसके लिए वनस्पति विज्ञान में अत्यधिक शोध को आवश्यकता है, प्रो यादव शुकुमार को टीएनबी कॉलेज में शुरू हुई आठ दिनों की कार्यशाला को संबोधित कर रहे थे, कार्यशाला का विषय पौधा वर्गीकरण में क्षमता विकास का प्रशिक्षण कार्यक्रम है, वरिष्ठ वैज्ञानिक डॉ पी लक्ष्मीनारायणन, पीजी बॉटनी के अध्यक्ष प्रो एके सिंह ने किया, टीएनबी कॉलेज के प्राचार्य डॉ डीएन झा ने

इंटरनेट के माध्यम से पौधों की तसवीर लेकर शोध कर रहे छात्र : प्रो केएलबी सिंह

वनस्पति विज्ञान विभाग, डॉटनिकल सोसाइटी ऑफ इंडिया की ओर से किया गया था, कार्यशाला की अध्यक्षता तिलकमाजी भागलपुर विश्वविद्यालय के कुलपति प्रो रमा शंकर दुबे ने की, कार्यशाला का उद्घाटन भारतीय वनस्पति सर्वेक्षण, कोलकाता के निदेशक डॉ परमजीत सिंह, टीएनबीयू के कुलपति प्रो दुवे, प्रािकुलपति प्रो एके राय, टीएनबीयू के विज्ञान के डीन प्रो केएलबी सिंह, शिवाजी विवि के प्रो एसआर यादव, वरिष्ठ वैज्ञानिक डॉ पी लक्ष्मीनारायणन, पीजी बॉटनी के अध्यक्ष प्रो एके सिंह ने किया, टीएनबी कॉलेज के प्राचार्य डॉ डीएन झा ने

पौधे खतरे में हैं, तो जीव भी खतरे में हैं, उन्होंने आज के दौर में इंटरनेट के जरूरी किये जानेवाले शोध की जम कर मुखालफत की, उन्होंने कई शोधार्थियों द्वारा शोध के लिए तैयार किये गये पावर प्वाइंट प्रेजेंटेशन में सुंदर-सुंदर पौधे संलग्न किये हुए देखा है, शोधार्थियों को यह पढ़ने पर कि क्या उन्होंने इन पौधों को देखा है, तो वे यह बताते हैं कि आज कल तो यह इंटरनेट पर आसानी से मिल जाता है, यह बहुत ही दुख की बात है कि जिन पौधों को छात्र देखा नहीं है, उस पर वे शोध कर लेते हैं, पादा वर्गीकरण के लिए फिलह स्टडी वेबट जरूरी है, कम से कम टीएनबीयू के पौधों बॉटनी विभाग के गार्डन में छात्र अवश्य जाएं और पौधों को पहचानें, इससे पूर्व अधीनस्थ सचिव डॉ हरिंदर कुमार चौधिया ने विश्व प्रवेश कराया, डॉ मनोज कुमार ने संचालन किया.

संशोधित करने प्रो परमजीत सिंह,

अतिथियों का स्वागत किया, भारतीय वनस्पति सर्वेक्षण, कोलकाता के निदेशक डॉ परमजीत सिंह ने पादा वर्गीकरण में आने संस्थान की प्रतिबद्धता को रेखांकित किया, उन्होंने कहा कि मनुष्यों में जन्म के साथ ही वर्गीकरण का रिश्ता हो जाता है, तिलकमाजी भागलपुर विश्वविद्यालय के विज्ञान के डीन प्रो केएलबी सिंह ने कहा कि

सारांश

पौधों की सही पहचान हो, मिले संरक्षण

- टीएनबी कॉलेज में आयोजित राष्ट्रीय कार्यशाला में बोली वैज्ञानिक डॉ संगीता
- आज मंदार पर्वत पर वैज्ञानिक व छात्र करेंगे पौधों की पहचान

वरीय संवाददाता, भागलपुर



कार्यशाला में जानकारी देते प्रोफेसर.

■ फोटो | प्रभात खबर

टीएनबी कॉलेज में चल रही आठ दिवसीय कार्यशाला के दूसरे दिन कॉलेज के प्रशाल में कार्यशाला हुई, जबकि पीजी बॉटनी विभाग में प्रयोग किया गया. कार्यशाला का विषय पौधा वर्गीकरण में क्षमता विकास का प्रशिक्षण कार्यक्रम है. बॉटनिकल सोसाइटी ऑफ इंडिया, कोलकाता के वैज्ञानिक डॉ संगीता दास चौधरी ने पौधों के जड़, तना, पत्ती, फूल, फल के विभिन्न प्रकार पर चर्चा की. उन्होंने कहा कि कोई फूल नर होते हैं, कोई मादा होते, तो कोई दोनों होते हैं. नर फूल में बुनकेसर होता है और मादा फूल में जयांग होता है. कोई

फूल ऐसा है, जो नर फूल रहते हुए भी निष्फल हो जाता है. वीएसआइ वरिष्ठ वैज्ञानिक डॉ वी संपत कुमार ने पौधों के प्राचीन काल से लेकर आधुनिक वर्गीकरण की विस्तृत चर्चा की. वर्गीकरण के प्रत्येक सिस्टम

के गुण व दोष पर प्रकाश डाला. उन्होंने इस बात पर जोर डाला कि कोई भी सिस्टम हो, सबका मुख्य उद्देश्य है पौधों का संरक्षण व सही पहचान. आयोजन सचिव डॉ एचके चौरसिया ने अतिथियों को मोमेंटो देकर सम्मानित किया. उन्होंने

कहा कि जिस समय वे आइएससी में पढ़ते थे, उस समय इस तरह बतानेवाले शिक्षक मिले होते, तो आज वे जरूर टेक्सोनामिस्ट होते. उन्हें यह आत्मविश्वास है कि वर्कशॉप से एक या दो छात्र टेक्सोनामी में वैज्ञानिक बनेंगे. हर्बेरियम टेक्निक पर प्रायोगिक कक्षा का आयोजन पीजी बॉटनी में चार घंटे तक चला. सभी प्रतिभागी को एक-एक कर प्रयोग के नये-नये तरीके से अवगत कराया गया.

प्रायोगिक कक्षा का संचालन बीएसआइ के उक्त दोनों वैज्ञानिक के साथ-साथ डॉ देवेन्द्र सिंह, बॉटनिस्ट आनंद कुमार व गोपाल कृष्ण ने किया. कार्यशाला का आयोजन टीएनबी कॉलेज के वनस्पति विज्ञान विभाग, टीएमबीयू के पीजी वनस्पति विज्ञान विभाग, बॉटनिकल सोसाइटी ऑफ इंडिया की ओर से किया गया है. रविवार को वैज्ञानिकों के साथ सभी प्रतिभागी मंदार पर्वत पर पौधों की पहचान करेंगे.

टीएमबीयू के साथ बीएसआइ मिल कर करेगा काम

भागलपुर. टीएनबी कॉलेज के बॉटनी विभाग में शुक्रवार को आठ दिवसीय राष्ट्रीय कार्यशाला का समापन हुआ. कार्यशाला का आयोजन पौधा वर्गीकरण में क्षमता निर्माण का प्रशिक्षण कार्यक्रम विषय पर किया गया था. भारतीय वनस्पति सर्वेक्षण की ओर से विश्वविद्यालय के साथ परस्परिक शोध के आदान-प्रदान के लिए एमओयू पर हस्ताक्षर के लिए कुलपति को प्रस्ताव सौंपा गया. समापन समारोह में कुलपति प्रो रमा शंकर दुबे व प्रतिकुलपति प्रो एके राय ने शिरकत की. चार दशक से अधिक वनस्पति विज्ञान के क्षेत्र में सराहनीय कार्य करने के लिए स्रातकोत्तर वनस्पति विज्ञान विभाग के पूर्व विभागाध्यक्ष डॉ एसके वर्मा व टीएनबी कॉलेज के वनस्पति विज्ञान विभाग के पूर्व विभागाध्यक्ष डॉ अवध किशोर को प्रशस्ति चिह्न प्रदान किया गया. भारतीय वनस्पति सर्वेक्षण, कोलकाता की ओर से कार्यशाला के आयोजन के लिए आयोजन सचिव डॉ हीरेंद्र कुमार चौरसिया को प्रशस्ति चिह्न दिया गया. वरिष्ठ वैज्ञानिक डॉ पी नरसिम्हन को सम्मानित किया गया.

भागलपुर, 21 फरवरी 2015

दैनिक जागरण | 9

पौधों की पहचान पर बॉटनी के वैज्ञानिकों का मंथन



संमेलन का उद्घाटन करते कुलपति ।

जासं, भागलपुर: पौधों की पहचान आधुनिक समय में संकट में है। बॉटनी की पढ़ाई से भी छात्रों का मोह कम हो रहा है। पौधों की पहचान को कायम रखने के लिए टीएनबी कॉलेज में शुक्रवार को दिन भर देश के वैज्ञानिकों का मंथन हुआ। आठ दिवसीय राष्ट्रीय कार्यशाला के जरिए पौधों के वर्गीकरण में क्षमता निर्माण को बढ़ाने के लिए बॉटनी के विद्वानों ने अपने विचारों को रखा। कुलपति प्रो. रमाशंकर दुबे, भारतीय वनस्पति सर्वेक्षण कोलकाता के निदेशक डॉ. परमजीत सिंह, प्रतिकुलपति प्रो. एकेराय, साइंस के डीन प्रो. केएलबी सिंह, शिवाजी विधि कोलहापुर के बॉटनी हेड प्रो. एसआर यादव, वरिष्ठ वैज्ञानिक डॉ. पी. लक्ष्मीनारासिम्हन, पीजी बॉटनी के हेड प्रो. एकेसिंह ने संयुक्त रूप से दीप जलाकर वर्कशॉप का उद्घाटन किया। प्राचार्य प्रो. डीएन झा एवं आयोजन सचिव प्रो. एच के चौरसिया ने आगत अतिथियों का स्वागत किया। आयोजन सचिव प्रो. हीरेंद्र कुमार चौरसिया ने पादप वर्गीकरण के क्षेत्र में हो रहे बदलाव की विस्तार से चर्चा की। निदेशक

डॉ. परमजीत सिंह ने पादप वर्गीकरण के विकास में संस्थान की प्रतिबद्धता को रेखांकित किया। साइंस के डीन प्रो. केएलबी सिंह ने शोध के इंटरनेट तक ही सीमित रहने पर गहरी चिंता जताई। कहा कि बॉटनी के शोध में फील्ड स्टडी बेहद जरूरी है। अन्यथा छात्र पौधों की सही तरीके से पहचान नहीं कर पाएंगे। सभी वक्ताओं ने मानव अस्तित्व को बचाने के लिए पौधों को बचाने की जोरदार वकालत की। पृथ्वी पर करीब 1.7 मिलीयन पादप का वर्गीकरण हो चुका है। इसके बावजूद बड़ी संख्या ऐसे पादप बचे हुए हैं जहां तक वैज्ञानिकों की पहुंच नहीं हो पाई है। समारोह का संचालन राजनीतिशास्त्र के शिक्षक प्रो. मनोज कुमार ने मनमोहक अंदाज में किया। इस अवसर पर डॉ. ज्योतिंद्र चौधरी, शिक्षक संघ के नेता प्रो. डीएन राय, प्रो. केसी मिश्रा, प्रो. फारुक अली, प्रो. लक्ष्मीधर झा, प्राचार्य प्रो. मीना रानी यादव, प्रो. जनादिन शर्मा, प्रो. एके चौधरी आदि मौजूद थे। वक्ताओं ने बॉटनी के शिक्षक सह आयोजन सचिव प्रो. एच के चौरसिया की प्रतिभा की जमकर तारीफ की।

4 | दैनिक जागरण भागलपुर, 26 फरवरी 2015

भागलपुर जागरण

पौधों को उजाड़े तो खुद उजड़ जाओगे



आनंद कुमार वीजी प्रसाद



टीएनबी कॉलेज के बॉटनी विभाग में संमेलन के दौरान प्रोजेक्टर पर समझाते वैज्ञानिक। जागरण

वैज्ञानिकों से बातचीत

टाइमर की तरह बॉटनी की पढ़ाई भी मर रही है। पौधों की पहचान के तरीकों को छात्र भूल रहे हैं। ग्रुप फोरेस्ट का धरण हो रहा है। सबसे पुराना साइंस टेक्सोनामी उपेक्षित हो रहा है। नई पीढ़ी से नेजर से भाग रही है। बॉटनी के लिए यह संकट का समय है।
डॉ. बीएस खोसिया देहरादून

पौधों के प्रति लोगों में जागरूकता आई है। बॉटनी का महत्व बढ़ा है। एंगलैंड और अमेरिका की तरह भारत में भी बॉटनी के शोध को बढ़ावा देने की जरूरत है। बिना टेक्सोनामी के नॉलेज के बॉटनी की पढ़ाई में निपुणता नहीं हासिल हो सकती है।
डॉ. पी लक्ष्मी नरसिम्हन उपनिदेशक बीएसआइ कोलकाता

विधि का सिलेबस ऐसा बनाया गया है जिसमें बेसिक साइंस पर कम जोर दिया गया है। फिनालों में बेसिक साइंस की उमेका हो रही है। बच्चे जल्दी जाँच चाह रहे हैं। फील्ड स्टडी की कमी से गुणवत्ता में गिरावट आ रही है।
डॉ. कनाद दास, पश्चिम बंगाल

एक पौधे को काटने में पांच मिनट का समय लगता है। लेकिन एक पौधे के विकास में 50 साल का समय लग जाता है। पौधों से लगाव पैदा करने की जरूरत है। बॉटनी का क्रेज पहले से बढ़ा है।
प्रो. पुष्पा कुमारी युवा वैज्ञानिक बीएसआइ कोलकाता

शेवाल से खेती में आएगी क्रांति

अलग की बिना घरती फट जाएगी। समुद्र सूख जाएगी। अलग यानी शेवाल से खेती में क्रांति आ जाएगी। शेवाल का उपयोग खेती के लिए खरदान से कम नहीं है। बिहार एवं झारखंड में खेतीबारी में शेवालके प्रयोग को बढ़ाने की जरूरत है।
प्रो. आरके गुप्ता, वैज्ञानिक कोलकाता

खास बातें

- बॉटनी के वर्कशॉप में तैयार हो रहे भविष्य के वैज्ञानिक
- भागलपुर में भी खुल सकता है बॉटनिकल सर्वे ऑफ इंडिया का सेंटर
- प्लांट टेक्सोनामी की अलग से हो पढ़ाई
- प्लांट टेक्सोनामी के ज्ञान में दूर प्रतिभागी

A glimpse of celebration of the 125th Anniversary of BSI at Asutosh Birth Centenary Hall, Indian Museum, Kolkata

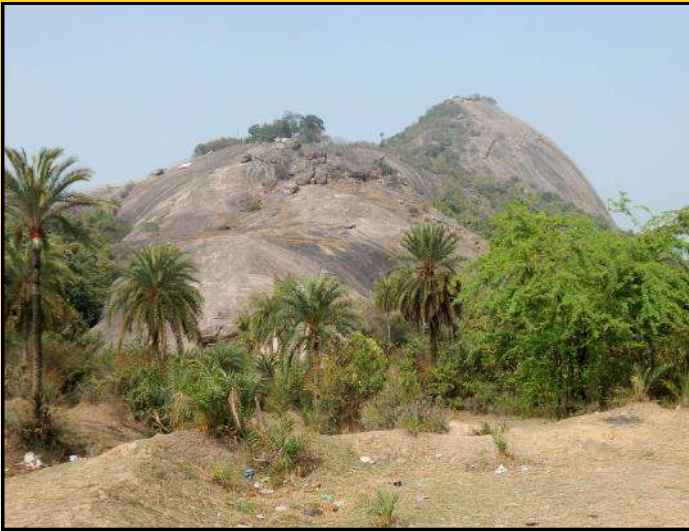


A glimpse of celebration of the 125th Anniversary of BSI at Asutosh Birth Centenary Hall, Indian Museum, Kolkata



A glimpse of 'Capacity Building Training Course In Plant Taxonomy' at T.N.B. College, Bhagalpur





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