

BSI NEWSLETTER

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5th Floor, DF Block, Sector – I, Salt Lake City
Kolkata – 700 064



HEAD QUARTERS, KOLKATA

For Algal Flora of Jharkhand, Dr. R. K. Gupta, Scientist 'D' identified and described following species of euglenoids viz., *Astasia applanata*, *Colacium mucronatum*, *Euglena agilis*, *Euglena convoluta*, *Euglena ehrenbergii*, *Euglena limnophila*, *Lepocinclis acus*, *Phacus caudatus*, *Strombomonas acuminata*, *Trachelomonas armata*, and *T. volvocina*. Further, 47 diatoms, collected from Jharkhand, were photomicrographed under SEM by Dr. Gupta.

Dr. D. Singh, Scientist 'C' prepared the Microphotoplates and SEM plates of *Riccia curtisii*, received from Kolkata University for identification and *Chroococcidiopsis* collected from Larsemann Hills, East Antarctica.

For the project, "Pharmacognosy of Indian Cycads" the micro-morphological features of the pollen grains of 3 species of *Cycas* were studied under Light Microscope (LM) by Dr. A.B.D. Selvam, Scientist 'D'.

For Environment Impact Study (EIS) on Rabindra Sarobar, Kolkata, 15 numbers of wood rotting macrofungi were collected from Rabindra Sarobar area as per the instructions of National Green Tribunal and processed them by Sri M.E. Hembrom. Following 10 numbers of Macrofungi specimens were identified for the project entitled, "Biodiversity assessment through long term monitoring plants in Indian Himalayan landscape", collected by Dr. Vikas Kumar, Dr. D.S. Rawat, Sri A. Banerjee and Sri S. Pandey: 79954 as *Laetiporus sulphureus* (Fomitopsidaceae); 79955 as *Hericium* sp. (Hericeaceae); 79956 as *Daedaleopsis nipponica* (Polyporaceae); 79957 as *Xylobolus subpileatus* (Stereaceae); 79958 as *Hymenochaete xerantica* (Hymenochaetaceae); 79959 as *Fuscoporia senex* (Hymenochaetaceae); 79984 as *Trametes gibbosa* (Polyporaceae); 79985 as *Phellinus acontextus* (Hymenochaetaceae); 79986 as *Inonotus flavidus* (Hymenochaetaceae);

Sri Arvind Parihar, Bot. Asst. incorporated 108 Fungi samples including two Holotype specimens received from Tahir Mehmood, Priyanka Uniyal and Upendra Singh, Research scholars of H.N.B. Garhwal University, Srinagar, Uttarakhand. Holotype Specimens are CAL-1400, *Lactarius kumaonicus* (Russulaceae) and CAL-1401, *Lactarius olivaceopallidus* (Russulaceae).

Dr. S.K. Das, AJCBPDF studied two specimens of algae collected from Neora Valley National Park, West Bengal in connection with the research project entitled, "Biodiversity Assessment through Long-Term Monitoring plots in Indian Himalayan Landscape". Dr. Das for Environmental Impact Assessment study in Rabindra Sarobar lake premises, Kolkata conducted a field tour to the lake premises and collected 10 algal samples on 28.01.2017.

Public service rendered

Dr. A.B.D. Selvam pharmacognostically studied and authenticated seeds of *Sinapis alba* (Brassicaceae), which was received from M/s Imami Limited, Kolkata.

Dr. Kanad Das, Scientist 'D' reviewed a manuscript for the journal *Mycosphere*.

Dr. Monalisa Dey, Scientist 'B' attended 18 B.Sc. students of Narajole Raj College on educational visit to Central National Herbarium on 27.01.2017

Sri M.E. Hembrom, Botanist helped one research scholar from Department of Botany, HNB Garhwal University, Srinagar, Uttarakhand in their macro- & microscopic characterization of various Himalayan fleshy macrofungi.

Meeting attended

Sri M.E. Hembrom, and Dr. S.K. Das, AJCBPDF participated in one day meeting held at HQ., IBRAD, Kestopur, Salt Lake, Kolkata in order to Study for the Mangroves flora under Sunderban Biosphere and develop conservation strategy through community participation.

Dr. Das also participated as an expert committee member in the consultative meeting called by National Green Tribunal, Kolkata on 25.01.2017 for Environmental Impact Assessment study in Rabindra Sarobar lake premises

Publications

Singh, D. and Singh, D.K. 2017. Two new species of *Riccardia* (Aneuraceae, Marchantiophyta) from Eastern Himalaya, India with notes on the genus in Sikkim. *Taiwania* 62(1): 33–42.

CENTRAL NATIONAL HERBARIUM, HOWRAH

Dr. O.N. Maurya, Scientist 'C' conducted a field tour to 'Udaipur wildlife sanctuary', Bettiah, West Champaran Bihar from 13.01.2017 to 23.01.2017 along with Sri Saurabh Sachan and Sri Anand Kumar, Bot. Assts. and collected a total of 57 field numbers along with G.P.S. data and photographs.

Dr. Rajib Gogoi, Scientist 'D' undertaken local tour to Rabindra Sarobar Lake, Kolkata on 19.01.2017 and 28.01.2017 in connection with EIA study of the lake and collected ca 75 field numbers.

Herbarium identification

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

Dr. Maurya identified 9 field numbers collected from Vikramshila Gangetic Dolphin Wildlife sanctuary, Bhagalpur, Bihar.

Sri P.P. Ghosal, Botanist identified 7 species collected from Betla National park, Latehar, Jharkhand.

Public Service rendered

CNH officials identified 18 plant specimens received from Department of Pharmacology, R.G. Kar Medical College, Kolkata; Agricultural & Ecological Research Unit, Indian Statistical Institute, Kolkata; Medical Microbiology, Rama University, Mandhana, Kanpur, UP; Department of Pharmaceutical Sciences, Birla Institute of Technology, Mesra, Ranchi.

Dr. Gogoi reviewed two manuscripts of *Impatiens* for the journals *Phytotaxa* and *Nordic Journal of Botany*.

Dr. V. Sampath Kumar, Scientist 'D' sent the scanned pdf format of the paper, Sedgwick, L.J. 1919. A new Indian *Habenaria*. *Rec. Bot. Surv. India* 6: 352. to Dr. Vatsavaya S. Raju, Retd. Professor, Department of Botany, Kakatiya University, Warangal, Telangana.

Dr. Kumar also provided the information on following type specimens: *Orophea hirsuta*-Type: King's collector 4283 sheets CAL0000004680, 4681, *Uvaria scortechinii* -Type: B. Scortechini 1990 CAL0000004205, 4198, 4199, *Miliusa tristis* Type: Dr. J. Anderson, *Artabotrys cumingianus* var. *reticulatus* - Elmer 13608, *Oxymitra lagunensis* - Elmer 9421, *Oxymitra obtusifolia* - Elmer 9423, *Goniothalamus dolichopetalus* - Whitford & Hutchinson 9268 & 9261, *Goniothalamus trunciflorus* - Whitford 774, *Polyalthia gigantifolia* - Foxworthy *et al.* For. Bur. 13763, *Polyalthia gracilipes* - Escritor Bur. Sci. 20792, *Polyalthia grandifolia* - Elmer 7358, *Polyalthia oblongifolia* - C.B. Robinson Bur. Sci. 9259, *Polyalthia tenuipes* - Foxworthy & Ramos Bur. Sci. 13472, *Uvaria lancifolia* - F.C. Gates 5495, *Uvaria panayensis* - Ramos & Edano. deposited at CAL to Dr. I. M. Turner, RBG, Kew.

Dr. Subir Bandyopadhyay, Scientist 'B' reviewed two manuscripts received from Executive Editor, *Bangladesh Journal of Plant Taxonomy* and Editor in Chief, *Annales Botanici Fennici* and edited a book chapter received by HoO, CNH from Prof. T. Pullaiah, Sir Krishnadevaraya University, Andhra Pradesh.

Dr. Bandyopadhyay replied three queries on typification of names in *Garcinia* from Mr. Shameer P.S, Research Scholar, Jawaharlal Nehru Tropical Botanic Garden and Research Institute, Kerala.

Dr. Bandyopadhyay provided PDF of all the protologues of the names of the Indian taxa published in *Phytotaxa* up to 31.12.2016 to Dr. S. Karthikeyan, Retired Scientist, BSI, Pune; reference of a book on Indian *Rosa* to Dr. Daniel Lemonnier and PDF of 16 pages from *Taxon* 63: 2014 and 2 pages from *Taxon* 47: 1998 to Dr. M. Sanjappa and of 2 pages from *Rumphius, Herb. Amboin.* 1741 to Mr. Shameer P.S, Research Scholar, Jawaharlal Nehru Tropical Botanic Garden and Research Institute, Kerala.

Dr. Bandyopadhyay also identified two specimens of *Bauhinia* received from Dr. T.K. Mandal, University of Animal & Fishery Sciences, Head, Department of Veterinary Pharmacology & Toxicology, Belgachia, Kolkata and Dr. Rahul Nanotkar, Dept. of Veterinary Pharmacology & Toxicology, WBUAFS, Mohanpur Campus and based on his feedbacks the following changes has been made in IPNI: *Cyathostemma acuminatum* King - J. *Asiat. Soc. Bengal*, Pt. 2, *Nat. Hist.* 61(1): 4. 1892 has been replaced by *Cyathostemma acuminatum* King—

J. Asiat. Soc. Bengal, Pt. 2, *Nat. Hist.* 61(1): 11. 1892; *Beilschmiedia gammieana* King ex Hook.f.—*Fl. Brit. India* [J. D. Hooker] 5(13): 125. 1886 [Aug 1886] has been replaced by Lauraceae *Beilschmiedia gammieana* King ex Hook.f. - *Fl. Brit. India* [J. D. Hooker] 5(13): 124. 1886 [Aug 1886].

Dr. Avishek Bhattacharjee, Scientist 'B' sent image of the type of *Acacia lenticularis* Buch.-Ham. ex Benth. to Sri Anup Deshpande, Research Scholar, University of Goa on 26.12.2016 and also sent a specimen of *Pogonatum nudisculum* Mitt. to Dr. A.K. Asthana, Principal Scientist, Bryology Laboratory, National Botanical Research Institute, Lucknow.

Meetings attended

Dr P.V. Prasanna, Scientist 'F' & HoO went to Hyderabad for a meeting with Secretary, MoEF & CC to appraise the land related matter of BSI-DRC, Hyderabad on 06.01.2017 and 07.01.2017.

Training programme conducted

As an ENVIS co-ordinator, Dr. V. Sampath Kumar organised two-day training course on 'Basics of Plant Nomenclature' at CNH Auditorium on 14th and 15th January 2017. Total 62 participants (Asst. Professors, Research scholars and PG students) attended the course from various colleges, universities, and institutions of West Bengal, Bihar, Jharkhand, Orissa and Uttar Pradesh. To the participants the manual on 'Basics of Plant Nomenclature' was provided along with the kit. All the arrangements like stage decoration, food, preparation of Banners, certificates and questionnaires were made with the help of ENVIS staff.

The Training programme was inaugurated by Dr. Paramjit Singh, Director, BSI on 14th January 2017. After a brief one-hour inaugural programme, the power point presentations were made by the resource persons, Dr. V. Sampath Kumar, Dr. Avishek Bhattacharjee, Dr. Subir Bandyopadhyay, Dr. Gopal Krishna and Dr. Sangita Das Chowdhery.

Dr. Sampath Kumar delivered four lectures on plant nomenclature. On 14th January, presented the lecture on "History of the Code of Botanical Nomenclature" and "Author Citation". On 15th January presented the lecture on "Categories and Hierarchy" and "How to describe a new taxon". Also evaluated the Questionnaires on plant nomenclature answered by the participants on the afternoon of the 15th January. The valedictory function was attended by the Director, BSI and Sri Pradeep Kumar, Asst. Acct. Officer, PAO, Kolkata on 15th January. The certificates were issued to the participants and the function ended with the vote of thanks by Dr. K.A. Sujana, Scientist 'D', CBL.

Visitors

Scientists from Birbal Sahni Institute of Palaeosciences, Lucknow from 26.12.2016 to 06.01.2017.

48 students of B. Sc. Botany Hons. from Rishi Bankim Chandra College for Women, Naihati, 24 Pgs.(N) on 03.01.2017.

40 students of B. Sc. Botany Hons. from Siddheswar College, Amarda Road, Balasore, Odisha on 09.01.2017.

Dr. Phatik Tamuli, Darrang College, Tezpur, Assam on 09.01.2017.

21 students of B. Sc. Botany Hons. from Narasinha Dutta College, Howrah on 12.01.2017.

04 students of B. Sc. Botany (Hons.) from Shibpur Dinbhandhu College, Howrah; 20 students of B. Sc. Botany (Hons.) from Asutosh College, Kolkata and Ms. Sushmita Barua from North Eastern Hill University, Shillong, Meghalaya on 13.01.2017.

14 students B. Sc. Botany (Hons.) from Kalyani Mahavidhyalaya, Nadia on 14.01.2017.

Mr. Maroof Hamid from Dept. of Botany, University of Kashmir, Jammu & Kashmir; 45 students of B. Sc. Botany (Hons. and General) from City College, Kolkata and Dr. Moruthi R., Scientist, ICAR, Kolkata on 16.01.2017.

27 students of B. Sc. Botany (Hons.) from Siliguri College, Siliguri, West Bengal and 27 students of B. Sc. Botany (Hons.) from Prabhat Kumar College, Contai, Midnapore, West Bengal on 18.01.2017.

14 students of M.Sc. (Sem. II) from Department of Botany, T.M. Bhagalpur University, Bhagalpur, Bihar; 35 students of B. Sc. Botany (Hons. and General) from Moulana Azad College, Kolkata and 17 students of B. Sc. Botany (Hons.) from Ramnagar College, Purba Medinipur on 19.01.2017.

50 students of B. Sc. Botany (Pass) from Dr. Kanailal Bhattacharyya College, Ramrajatala, Howrah; 26 students of B. Sc. Botany (Hons.) from Ghatal R.S. Mahavidyalaya, Paschim Medinipur and 20 students of XI standard from Islamia Higher Secondary School, Kolkata on 20.01.2017.

12 students of B. Sc. Botany (Hons.) from Raghunathpur College, Purulia; 17 students of B. Sc. Botany (Hons.) from Sarojini Naidu College for Women, Dumdum, Kolkata and Ms. Jaswinder Kaur, Dept. of Botany, University of Allahabad, Allahabad on 24.01.2017.

12 students of B. Sc. Botany (Hons.) from Bhairab Ganguli College, Belgharia, Kolkata on 25.01.2017.

Dr. Mark Watson and his team of RBG, Edinburgh, UK from 24.01.2017 to 27.01.2017.

12 students of B. Sc. Botany (Hons.) from Charuchandra College, Lake Road, Kolkata on 30.01.2017.

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

CENTRAL BOTANICAL LABORATORY, HOWRAH

Dr. Harish Singh, Scientist 'D' & HoO and Dr. P.A. Dhole, Bot. Asst. identified 77 plant species collected from Nuapada district of Odisha; Sri A.C. Halder, Botanist and Sri P.K. Baske, Botanist identified 30 plant species collected from Baudh district of Odisha. Dr. K.A. Sujana, Scientist 'D' and Sri R. Saravanan, Bot. Asst. documented 24 endemic trees of Western Ghats and collected ethnobotanical uses of 28 endemic trees used by Onges and Shompens of Andaman & Nicobar Islands and tabulated. Dr. Monika Mishra studied vegetative and reproductive characters of *Rivina humilis* L. (Phytolaccaceae) counted chromosome no $2n=108$.

Public service rendered

Dr. Harish Singh collected and sent IUCN status of *Oroxylum indicum* to Dr. A. Saklani, Sami Lab, Bengaluru.

Observed National Youth Day

Officials of Central Botanical Laboratory observed National Youth Day and organized a training course in "Digital Payments" in CBL on 12.01.2017. Prepared 6 posters and displayed on display board; delivered a speech and demo on "Digital Payments" in CBL on 12.01.2017.



Dr. Harish Singh explaining about usage of debit and credit cards for online bill payments



Dr. (Ms.) Monika Mishra and Sri Saravanan giving hands on training on mobile banking



Dr. K.A. Sujana demonstrating bill payment using e-wallet



Dr. P.A. Dhole explaining about USSD based mobile banking

Training courses attended

Dr. Harish Singh attended ENVIS training course on “Basics of Plant Nomenclature” in CNH as guest in inaugural and valedictory session. Dr. K.A. Sujana, Dr. P.A. Dhole, Monika Mishra and Sagari Chaudhury also attended the course.

Visitors/students visited

53 students and two teachers from Department of Botany, City College, Kolkata visited ethnobotanical museum, CBL, Howrah.

Publications

Singh, H., Saravanan, R. and Dhole, P.A. 2017. *Physalis pruinosa* L. (solanaceae)- A new addition to the flora of Odisha. *Zoo's print* 32(1): 32–34.

– Dr. Harish Singh
Scientist 'D' & HoO

INDUSTRIAL SECTION INDIAN MUSEUM, KOLKATA

The botanical paintings by Roxburgh are being interpreted with updated nomenclature: In the family Zingiberaceae, *Curcuma rubescens* Roxb.; *C. viridiflora* Roxb.; *C. aromatica* Salisb.; *C. zedoaria* (Christm.) Roscoe; *C. euchroma* Valetton; *Globba sessilifolia* Sims; *G. marantina* L.; *G. orixensis* Roxb. *G. pendula* Roxb.; *Hedychium coccineum* Buch.-Ham. ex Sm.; *H. coronarium* J.Koenig; *H. flavum* Roxb.; *H. gracile* Roxb. and in the family Convolvulaceae 10 species were interpreted: *Ipomoea grandiflora*, *I. multiflora*, *I. muricata*, *I. pes-tigridis*, *I. phoenicea*, *I. pileata*, *I. salicifolia*, *I. sepiaria*, *Lettsomia aggregata*, and *L. argentea*.

Database of Herbarium Specimens

As a part of preparing a database of herbarium specimens at BSIS, 150 numbers of Dicot herbarium specimens were listed and documented.

Updating of nomenclature of digitized Herbarium Specimens at BSIS

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

Public service rendered

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

National Youth Day

Celebrated National Youth Day on 12th January, 2017 and organized a meeting to discuss different methods for digital payments with participants.

Programme attended

Dr. M. Bhaumik, Scientist 'D' & HoO attended training on Basics of Plant nomenclature organized by ENVIS centre on Floral Diversity in collaboration with CNH on 14.01.2017.

Ms. Sudeshna Dutta and Sri B.C. Dey, Sr. Pres. Asstt. represented Botanical Survey of India in 'Vigyan Anyeswan' Science Fair at Santoshpur, Kolkata from 31st December 2016 to 1st January 2017.



Celebrating National Youth Day and discussing about different methods for digital payments



Visitors at BSI's Stall during Science Fair Vigyan Anyeswan at Santoshpur, Kolkata

Visitors/students

Sri Anil Sant, IAS, Joint Secretary. MoEF & CC along with Sri S.K. Rastogi, Chief Engineer and Sri L. Dumdung Superintendent Engineer of CCU, MoEF & CC and other dignitaries visited ISIM to review the renovation work (civil and electrical) undertaken by the NBCC for the project, "Restoration of BSI, ISIM building at Indian Museum campus" on 31st January, 2017.



Sri Anil Sant, Joint Secretary, MoEF & CC, Sri A.K. Rastogi, Chief Engineer, CCU, MoEF & CC during inspection of renovation work at Botanical Gallery, ISIM, Kolkata

Sri M.S. Viraraghavan Retd. IAS and Mrs. Girija Viraraghavan, famous Plant Breeders visited Botanical Gallery and Sir J.D. Hooker's Exhibition on 06.01.2017. 70 nos. of school students of Kishor Bharati School, Barackpore visited botanical gallery and ongoing Sir J.D. Hooker's Exhibition as a collaborative scientific exhibition programme of CWEH, University of Sussex with BSI and attend a lecture on "Rhododendrons of India" delivered by Dr. Manas Bhaumik, Scientist 'D' & HoO, ISIM on 07.01.2017. Mr. Authny and James Sanda, London visited botanical gallery on 23.01.2017.

– Dr. Manas Bhaumik
Scientist 'D' & HoO

ANDAMAN & NICOBAR REGIONAL CENTRE, PORT BLAIR

Dr. T.A.M. Jagadeesh Ram, Scientist 'D' identified 109 specimens of Coenogoniaceae, Gomphillaceae, Pilocarpaceae and Strigulaceae into 16 species. Dr. Sanjay Mishra, Scientist 'B', identified 16 unidentified specimens at PBL. Dr. C.P. Vivek, Bot. Asst. identified 12 herbarium specimens.

Digitization of herbarium specimens

Herbarium sheets Scanned: 308 numbers of family Amaranthaceae, Polygonaceae, Aristolochiaceae, Piperaceae and Myristicaceae.

Herbarium details computerized in EXCEL format: 608 herbarium specimens of families Annonaceae, Dilleniaceae, Magnoliaceae, Ranunculaceae, Scrophulariaceae and Taccaceae were fed in computer in the prescribed format.

Public service rendered

Dr. Lal Ji Singh, Scientist 'D' & HoO performed duties as a Chairperson and Judge in State Level Flower Show -2017 organised by Directorate of Agriculture, Andaman and Nicobar Administration, Port Blair on 10.01.2017.

Dr. Singh performed duties as question paper setter for Forest Training Research Institute, Wimberlignj, South Andaman.

Dr. Jagadeesh Ram reviewed one Research article for the Journal *Cryptogam Biodiversity and Assessment*.

Scientific Audit

Scientific Audit of this office was carried out by Sri Avijit Jana, Sr. Audit Officer and Sri Uttam Das, Asst. Audit Officer, Indian Audit & Accounts Department, Office of the Principal Director of Audit, Scientific Departments, Kolkata from 29.12.2016 to 11.01.2017.



Photo: C.P. Vivek

Scientific Audit team at ANRC, BSI, Port Blair



Photo: G.A. Ekka

Dr. Sanjay Mishra delivering lecture on 'Digital Payments' on the occasion of National Youth Day

National Youth Day, 2017

Observed National Youth Day on 12.01.2017 and organized a lecture on 'Digital Payments' Dr. Sanjay Mishra, Scientist 'B' of this office was the resource person.

Republic Day, 2017

Organized 68th Republic day Flag Hosting celebration at ANRC, BSI, Port Blair on 26.01.2017.

Meeting/function attended

Dr. Lal Ji Singh participated the inaugural Ceremony of Island Tourism Festival-2017 inaugurated by Hon'ble Lt. Governor, Andaman and Nicobar Islands Prof. Jagdeesh Mukhi, at ITF Ground Port Blair on 06.01.2017.

Dr. L.J. Singh and Dr. Sanjay Mishra attended meeting of Town official language implementation committee (TOLIC) held at ICAR- Central Island Agriculture Research Institute, Port Blair on 12.01.2017.

Dr. C.P. Vivek attended the general body meeting of Central Government Employees' welfare co-ordination Committee held on 13.01.2017 in the conference hall of the National Institute of Ocean Technology, Dollygunj, Port Blair.

Dr. Singh participated the opening ceremony of State Level Exhibition–Gyanodaya, 2016–17 in collaboration with Department of Science and Technology, A & N Administration and NCERT, New Delhi at GGSSS, Port Blair on 17.01.2017.

Dr. Singh attended 68th Republic Day Flag Hosting celebration at Netaji Subas Chandra Bose Stadium, Port Blair and reception at Raj Niwas Port Blair on 26.01.2017.

Dr. Singh attended BEATING RETREAT Ceremony at Netaji Subas Chandra Bose Stadium, Port Blair on 29.01.2017.

Visitors/students

Dr. R. Kemp, Additional PCCF, Arunanchal Pradesh visited Museum, Library and Herbarium and Dr. L.R. Blugan, Scientist, State Forest research Institute, Itanagar visited Museum, Library and Herbarium on 09.01.2017.



Photo: G.A. Ekka



Dr. R. Kemp, Additional PCCF, Arunanchal Pradesh and Dr. L.R. Blugan, Scientist, State Forest research Institute, Itanagar at ANRC, BSI, Port Blair

Dr. Mayur D. Nandikar, Principal Investigator, Naoroji Godrej Centre for Plant Research, Shindewadi, visited Museum, Library and Herbarium on 12.01.2017.

Sri Arun Kumar Sen, Sri Sagar Kumar Biswas and Sri Sanatan Ghosh, IBG, Kolkata visited Museum, Library and Herbarium on 14.01.2017.

Sri P. Manoj and Sri Manu Balakrishnan of SCIGENOM Research Foundation, Nedumpura, Kerala visited Museum, Library and Herbarium on 18.01.2017.

Ms. Anupriya (Master in Architecture, College of Engineering, Trivandrum) visited herbarium and library on 24.01.2017.

Ms. Arpita Samadder and Ms. M. Meenu, JNRM College visited library on 31.01.2017.

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

CENTRAL REGIONAL CENTRE, ALLAHABAD

A total of 63 specimens under 33 species were identified in connection with the ongoing projects, 'Flora of Chandraprabha Wildlife Sanctuary, Chandauli, Uttar Pradesh; Floristic Diversity of Kishanpur Wildlife Sanctuary, Lakhimpur Kheri, Uttar Pradesh; Floristic Diversity of Parvati Aranga Wildlife sanctuary and adjoining Tikri forest area, Gonda, Uttar Pradesh. For the project, 'Taxonomic studies on lichenised non Thelotrema Indian Graphidaceae' and Lichens of Terai regions of Uttar Pradesh 12 species under 12 specimens were identified. In addition, 34 earlier collected specimens housed at BSA were also identified.

Completed taxonomic description of 23 species under ongoing projects, 'Flora of Chhattisgarh' Vol. I and 39 species Under 'Flora of Chhattisgarh' Vol. II along with morphometric analysis of 27 species of *Cyperus*.



Handroanthus impetiginosus – Blooming in
CRC, BSI, Garden, Allahabad

Sterculia urens – Blooming in Chandraprabha
Wildlife Sanctuary, Chandauli, Uttar Pradesh

Identification service rendered

Dr. Nitisha Srivastava, Botanical Assistant authenticated two plant specimens of *Phyllanthus amarus* received from A.B. Qayoom, Laboratory of Endocrinology, Department of Biosciences, Barakatullah University, Bhopal, Madhya Pradesh.

Lecture delivered/Programme attended

Dr. G.P. Sinha, Scientist 'E' & HoO delivered Dr. J.P. Srivastava Memorial Lecture at CMP College, Allahabad on the topic Lichenology in India: Present Status and Future Prospects on 30.01.17. Drs. A.N. Shukla and Neelam Gautam, Scientist 'B', Sri V.K. Singh and Dr. Nitisha Srivastava, Bot. Asst. attended the lecture from CRC, Allahabad.

Public service rendered

Dr. G.P. Sinha reviewed two manuscripts on lichens for *Bangladesh Journal of Plant Taxonomy and Cryptogam Biodiversity and Assessment*.

Dr. A.N. Shukla sent 300 identified photographs of plant species and landscapes to Dr. B.K. Sinha, Scientist 'F', Head Quarters, BSI, Kolkata.

Dr. Shukla also sent reply to Dr. P. Subramanian, Drug Standardization Unit (H), CCRH, Ministry of AYUSH, Hyderabad regarding the supply of Medicinal plants in bulk.

Visitors attended

Dr. A.N. Shukla, Scientist 'B' attended 19 students of B.Sc. III from Krishna Coaching Institute, Allahabad.

Training Programme attended

Neelam Gautam attended one day training programme of CDDOs for BEMS web application on 23rd January, 2017 at Indira Paryavaran Bhawan, New Delhi.

National Youth Day

On the occasion of National Youth Day on 12th January, 2017, a training programme was organized in the conference hall of CRC on Digital Payment. Dr. Ashutosh Kumar Verma, Scientist 'B' imparted training to various officials through a power point presentation on "Digital Payment System".

Publication

सिंह, वी. के. एवं सिंह, आर. के. सोनपाठा (ओरोजाइलम इंडिकम): एक पवित्र एवं चमत्कारी औषधीय पादप. *वन संज्ञान* 4(1): 28-31. 2017.

– Dr. G.P. Sinha

EASTERN REGIONAL CENTRE, SHILLONG

During the period two local tours were conducted: to Mawsynram-Balat area by Dr. A.V. Prabhugaonkar, Scientist 'B' on 14th and 15th January 2017 and Cherrapunjee by Sri L.R. Meitei, Bot. Asst. on 14.01.2017; and collected 8 species of ferns *Asplenium tenuifolium*, *Asplenium yoshinagae*, *Dennstaedtia scabra*, *Dryopteris cochleata*, *D. juxtaposita*, *D. sparsa*, *Peranema aspidiodes* and *Polystichum lentum*; 12 species of orchids *Acanthephippium sylhetense*, *Arundina graminifolia* var. *revoluta*, *Bulbophyllum odoratissimum*, *B. helenae*, *Celogyne fuscescens*, *Dendrobium longicornu*, *Eria bambusifolia*, *E. coronaria*, *Goodyera procera*, *Paphiopedilum insigne*, *P. venustum* and *Rhynchostylis retusa* and *Begonia palmata*. During this period identified 10 species for Flora of Eastern Nagaland by Dr. N. Odyuo, Scientist 'D' and Dr. R. Daimary, Bot. Asst., 12 species identified for Flora of Yangoupokpi Lokchao WLS (Manipur) by Dr. A.A. Mao, Scientist 'F' & HoO and Sri L.R. Meitei, 20 species identified for Flora of West & south-West Khasi hills district, Meghalaya with reference to the sacred groves by Dr. Chaya Deori, Scientist 'D' and Sri S.R. Talukdar, Bot. Asst. Dr. N. Odyuo and Dr. D.K. Roy, Bot. Asst. listed 35 taxa of Rosaceae for *Flora of Nagaland* (Vol. I & II) from earlier collection housed in ASSAM.

Bryoflora of Mizoram: Taxonomic description completed for seven species viz., *Lophocolea muricata*, *Saccogynidium irregularospinum*, *Asterella khasyana*, *Asterella multiflora*, *Asterella wallichiana*, *Conocephalum conicum*, *Cyathodium aureonitens*. Three species of *Riccia* viz., *Riccia personii*, *Riccia frostii*, and *Riccia cavernosa* by Dr S.K. Singh, Scientist 'D' under the project Taxonomic Revision of genus *Riccia* (Marchantiophyta) in India. Dr. A.V. Prabhugaonkar undertaken one field visit to Mawsynram-Balat area on 14th and 15th January 2017 to locate the plants of interest. *Citrus letipes*, *Wallichia* sp., *Pinnanga* sp., *Calamus* sp., *Persia* sp. specimens have been further studied for associated fungi. Seven fungi were isolated, photodocumented, 4 identified as *Haplotrichum* sp., *Graphiopsis* sp., *Tritirachium* sp., *Beltraniopsis* sp. attempts are made to culture them. Accession numbers were received from 'National fungal culture collection of India' at 'Agharkar research Institute', Pune for *Pseudotorula goaensis* (NFCCI 4040) and *Pseudocercosporidium subramanianii* (NFCCI 4039). Two fungal records were deposited in online repository's Faces of fungi: *Trichoglossum rasum* Pat. FoF 02878, *Pseudotorulagoaensis* Pratibha and Prabhugaonkar FoF 02876 Mycobank: MB819598. Deposited two sequences generated in 'genbank' and received deposition numbers *Trichoglossum rasum* ITS: KY457226 (ITS1/ITS4); LSU: KY457227 (LROR/LR5 for taxonomy, phylogeny and *ex-situ* conservation of Micro-fungal diversity from north-east India with special emphasis on fungi associated with endemic and threatened plants of Meghalaya.

Dr. M. Murugesan, Scientist 'B' and Sri L.R. Meitei recorded phenological data of flowering and fruiting of 42 plant species viz., *Aesculus assamica*, *Ageratum conyzoides*, *Albizia lucidor*, *Allamanda cathartica*, *Alnus nepalensis*, *Artocarpus heterophyllus*, *Bidens pilosa*, *Bixa orellana*, *Bombax ceiba*, *Bulbophyllum gymnopus*, *Callistemon citrinus*, *Camelia japonica*, *Caryota urens*, *Clerodendrum colebrookianum*, *Coelogyne viscosa*, *Dillenia indica*, *Dysoxylum hamiltonii*, *Elaeocarpus floribundus*, *Epidendrum radicans*, *Eria bambusifolia*, *E. paniculata*, *Eurya acuminata*, *Exbucklandia populnea*, *Garcinia lanceolata*, *Gnetum gnemon*, *Lagerstroemia speciosa*, *Ligustrum robustum*, *Litsea cubeba*, *Micromelum integerrimum*, *Prunus cerasoides*, *Catunaregam spinosa*, *Rauwolfia serpentina*, *Rauwolfia tetraphylla*, *Rhaphidifora decursiva*, *Schima wallichii*, *Solanum americanum*, *Taxus wallichiana*, *Terminalia chebula*, *Thunbergia coccinea*, *Thysanolaena latifolia*, *Tithonia diversiflora* and *Toona ciliata* during this period in Experimental Botanical garden, Barapani.

Approximately 1000 seedlings are subcultured *Cymbidium tigrinum*, Lab to land transferred of *C. tigrinum* (about 100 plants) in greenhouse, Data recorded for *Armodorium senapatianum*, *Cymbidium tigrinum* under the project Micro-propagation of RET Plants of Northeast India by Dr. A.A. Mao and L. Ibemhal Chanu, Bot. Asst.

Under Micropropagation, Phytochemical Screening of Medicinal Plants and Molecular Characterization of Selected Species by Dr. Deepu Vijayan, Scientist 'B', well rooted from *in vitro* raised plants of *Pyrenaria khasiana* was transferred to green house for acclimatization (15 nos.). Subcultured *in vitro* raised *Pyrenaria khasiana* on Woody Plant Medium supplemented with different growth regulator.



Photo: ERC

Pyrenaria khasiana* var. *lakhimpurensis
(Theaceae) – a new variety

Public service rendered

Identified about seven samples of specimens received from various institutions.

National Youth Day

A Training Programme on Digital Payments on the occasion of National Youth Day was held on 12th January 2017 at ERC, BSI, Shillong and was attended by all officers and staffs of ERC.

Visitors/students

Four research scholars, two students, three other visitors from various Institutions, Colleges and Universities visited the Centre.

Publications

Odyuo, N. and D. Kr. Roy. 2017. *Pyrenaria khasiana* R.N. Paul var. *lakhimpurensis* (Theaceae), a new variety from Assam, India. *Taiwania* 62(1): 29-32. (DOI: 10.6165/tai.2016.62.29).

Roy, D.K., Das Talukdar, A., Dutta Choudhury, M., Sinha, B.K., Ningthoujam, S.S., Nath, D. and Roy Choudhury, P. 2017. *Ethnomedicinal Plants Used By the Garo Tribe of South Garo Hills, Meghalaya, India*. In: B. Kshetrimayum (Ed.), *Medicinal Plants and Its Therapeutic Uses*. OMICS Group eBooks, Foster City, USA. Pp. 37-49.

– Dr. A.A. Mao
Scientist 'F' & HoO

NORTHERN REGIONAL CENTRE, DEHRADUN

Dr. Puneet Kumar, Scientist 'B' conducted herbarium consultation tour to Department of Botany, Punjabi University, Patiala (PUN) has been conducted from 26.12.2016 to 02.01.2017 for "Flora of Sechu Tuan Nalla Wildlife Sanctuary, Chamba District, Himachal Pradesh".

Herbarium Specimens Identified

Identified total 61 species and made descriptions for 140 species of plants under the projects on Flora of Uttarakhand Vol. V; Floristic Diversity and Phytosociological study of Simbalbara National Park; Flora of Nandhour Wildlife Sanctuary; Flora of Sonanadi Wildlife Sanctuary; Flora of Sechu-Tuan Nala Wildlife Sanctuary, Himachal Pradesh; Trees of Dehradun city and its vicinity; Revision of family Cyatheaceae and genus *Adiantum* in India.



Photo: R. Manikandan

A panoramic view of Sonanadi WLS



Photo: Dr. Puneet

Aralia cachemirica growing in Sechu Tuan Nala WLS, Himachal Pradesh

Photo: Dr. Manas

Trewia nudiflora flowering in Col. Sher Jung N.P.

Photo: Satish Khatri

Reintroduction of *Phlomoides superba* in its type locality Mohand Pass

Photo: Shamim Ahmad

Collection of *Catamixis baccharoides* cuttings

Meetings/seminar/conference attended/lecture delivered

Dr. S.K. Srivastava, Scientist 'E' & HoO, Convened meeting of Association for Plant Taxonomy to discuss issues of next Executive/Editorial body and the forth election process.

Visitors/students

17 students from Yuvaraja's College, Mysore and 10 students from Manipur. Students from G.B. Pant institute, Almora and 50 students of M.Sc. Botany and Environment Science, K.K. P.G. College, Itawah, Uttar Pradesh visited the centre. Dr. G.P. Sinha, Scientist 'E' & HoO, CRC, BSI visited NRC, BSI on 03.01.2017 and imparted training on collection of lichens to Research Scholars, NMHS.

Publications

Srivastava, A., Kumar, B. and Srivastava, S.K. 2017. On the correct identity and occurrence of *Elaeocarpus ganitrus* Roxb. ex G. Don "Rudraksh" in India. *Indian Forester* 143(1): 76–77.

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

SIKKIM HIMALAYAN REGIONAL CENTRE, GANGTOK

Dr. D.K. Agrawala Scientist 'C' finalized 50 specimens in respect of their identity, label data, finding geo-coordinates and entering in the excel sheet for the project "Red listing of Orchids of Eastern Himalaya as per IUCN criteria".

Dr. Sankararao Mudadla, Scientist 'B' identified three species for the project, "Flora of sacred groves of East Sikkim".

Dr. David Lalsama Biata, Scientist 'B' identified seven species for the project, "Flora of Sikkim–Family Onagraceae".

Sri Sundar Kumar Rai, Bot. Asst., identified eight species from 18 unidentified specimens.

Sri Subash Pradhan, Fieldman, identified six species from six unidentified specimens.

Digitisation of Herbarium specimens

610 herbarium sheets were scanned and meta data of 630 sheets belonging to Vitaceae, Aceraceae, Sabiaceae, Anacardiaceae and Papilionaceae Families were entered into Excel-worksheet.

National Youth Day

Observed National Youth day along with Digital payment programme at SHRC on 12.01.2017.

Meeting/programme attended

Dr. Sankararao Mudadla attended Narakash (Raj basha) meeting at CPWD office, Gangtok on 20.01.2017.

Dr. David Lalsama Biata attended one day training Programme of CDDOS on Budget and Expenditure Management System (BEMS) Web Application hand hold training at New Delhi on 23.01.2017.

Dr. Sankararao Mudadla attended as a member of DPC for sanctioning 2nd, MACP at Directorate of Census Operations, Sikkim on 24.01.2017.



Observed youth day cum Digital payment programme at SHRC, BSI, Gangtok

Visitors/students

Four M.Sc., Botany students from Sikkim University visited this library for literature consultation on 16.01.2017.

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

SOUTHERN REGIONAL CENTRE, COIMBATORE

Dr. C. Murugan, Scientist 'D' and Dr. S. Arumugam, Bot. Asst. identified 60 field numbers of previous collections from Meghamalai WLS, Tamil Nadu. They also identified four field numbers and completed author citations of 4 species of *Carex* in connection with the project Cyperaceae of Tamil Nadu. Under the fragile ecosystems, Dr. M. Palanisamy, Scientist 'D' and Sri S.K. Yadav, Bot. Asst. identified 89 field numbers of seaweeds and collected 6 references in connection with Seaweed Flora of Karnataka coast. Dr. K.A.A. Kabeer, Scientist 'D' and Sri A. Ravi Kiran, Bot. Asst. identified 34 field numbers from previous collection in connection with Floristic studies of Kodaikanal WLS, Tamil Nadu. Dr. J.H. Franklin Benjamin, Scientist 'C' and Sri Rakesh G Vadhyar, Bot. Asst. identified 28 field numbers for Flora of Kanniyakumari WLS. Under the documentation of Phytodiversity for Flora of Kerala, Dr. M.Y. Kamble, Scientist 'D' and Dr. T. Saravanan, Bot. Asst. completed the description of 8 species of the family Bromiliaceae. Sri R.K. Singh, Botanist and Dr. S. Pradeesh, Bot. Asst. completed nomenclature of 20 species of the family Commelinaceae. Dr. C. Murugan determinavited 23 herbarium sheets belonging to the genera *Eugenia*, *Syzygium* and *Phaeanthus* at MH.

Ex-situ conservation

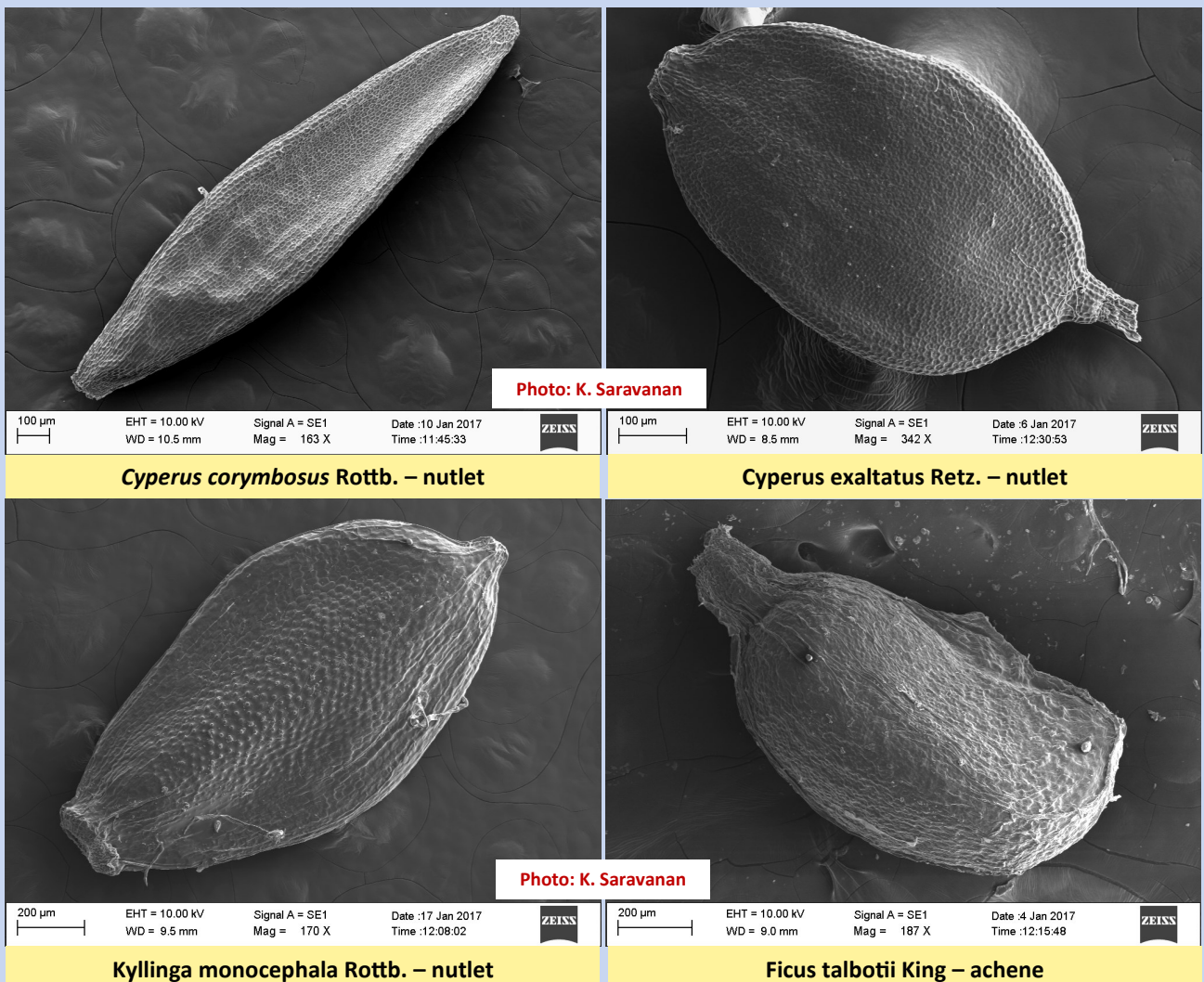
Dr. S. Kaliamoorthy, Scientist 'D' and his team at the National Orchidarium and Experimental Garden (NOEG), Yercaud multiplied 80 samples of orchids and other angiosperms, repotted 6 samples, developed 51 cuttings, transplanted 17 samples and recorded the phenological data of 27 species including 17 orchids and 10 other angiosperms.

Digitisation of Herbarium specimens

A total of 4684 herbarium sheets were barcoded and databasing of 1552 collections of *Ficus* L. (Moraceae) at MH has been completed and updated.

Scanning Electron Microscopy (SEM)

Dr. J.V. Sudhakar, Bot. Asst. micrographed 15 SEM images of achenes of 3 species of *Ficus* i.e. (*Ficus rumphii* Blume, *F. nervosa* B. Heyne ex Roth subsp. *pubinervis* (Blume) Berg. and *F. talbotii* King). Dr Sudhakar, along with Ms. Anantha Lakshmi, Sr. Pres. Asst. also studied the nutlets of 31 species of the tribe Cyperae and Fimbristyledeae from south India.



Public service rendered

During this month, 53 plant specimens were identified for research scholars and students of various institutions. Provided Internship Training on 'Database (e-herbarium) on collections of genus *Ficus* L. (Moraceae) and family Palmae (Arecaceae) to 5 B.Sc. (Botany) students of St. Joseph's college, Trichy, from 26th December 2016 to 5th January 2017.

Sri G.V. Rakesh, Dr. S. Pradeesh and Sri A. Ravi Kiran, Bot. Assts. taken classes on BSI, Museum, MH Collections and Type concept for the UG and PG students of FMN College, Kollam and Yogi Vemana University, Kadapa, Andhra Pradesh.

Conference attended

Dr. M. Palanisamy attended “National Conference on Biodiversity, Biology and Biotechnology of Algae” at CAS in Botany, University of Madras, Guindy campus, Chennai on 9th and 10th January 2017 and delivered a lecture on “Seaweed of South Andaman Islands”. Sri S.K. Yadav also attended the Conference at CAS in Botany, Chennai on 9th and 10th January 2017 and delivered an oral presentation on “Seaweed diversity of Kerala coast – Taxonomic Treatment”.

Visitors

During this month, a total of 101 students / research scholars and 20 scientific personnel / officials visited the museum, herbarium and library of this regional centre whereas 1764 persons in 157 parties visited the NOEG, Yercaud.

Publications

Singh, R.K. and Garg, A. 2017. Plight of the oldest baobab (*Adansonia digitata* L.) tree of India at Jhansi, Allahabad. *Indian For.* 143(1): 67–68.

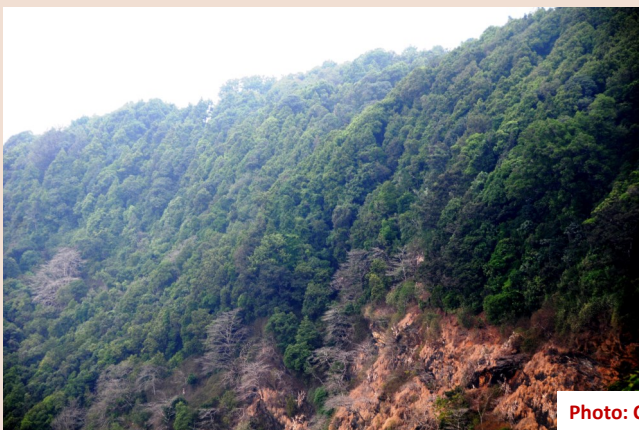
– Dr. C. Murugan
Scientist ‘D’ & HoO

WESTERN REGIONAL CENTRE, PUNE

Sri S.C. Patil, Bot. Asst. conducted field tour from 24.12.2016 to 07.01.2017 under the project “Flora of Pushpagiri Wildlife Sanctuary, Karnataka” and collected 146 field numbers.

Dr. Rashmi Dubey, Scientist ‘D’ conducted field tour from 21.01.2017 to 27.01.2017 under the project “Taxonomic Studies of Microfungi of Sanjay Gandhi National Park along with its 10% peripheral area” in Maharashtra and collected 196 fungal samples from different substrates.

Dr. C.R. Jadhav, Botanist conducted field tour from 21.01.2017 to 02.02.2017 under the project “Floristic survey of Someshwara Wildlife Sanctuary, Karnataka” and collected 150 field numbers.



View of Wet evergreen forests of Someshwara WLS

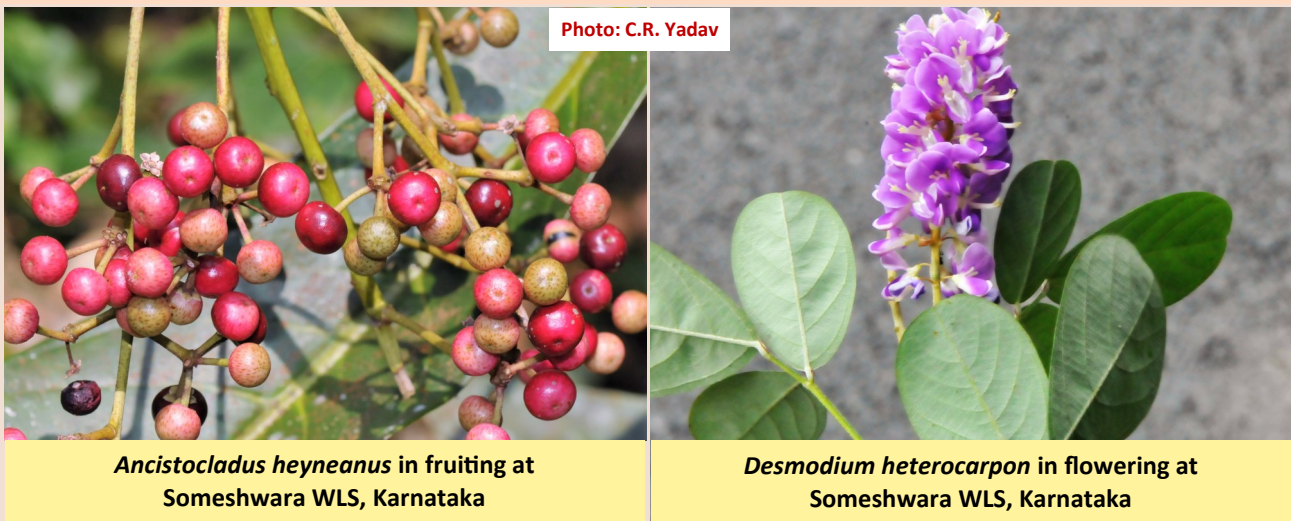


View of Someshwara Temple, Karnataka

Photo: C.R. Yadav

Herbarium specimen identification

Dr. Jeewan Singh Jalal, Scientist ‘D’ identified 21 field numbers of orchids collected from Goa for the project, “An Assessment of Orchid diversity of Central Western Ghats: Goa & Karnataka”. Sri S.C. Patil identified 47 plant species collected from Pushpagiri Wildlife Sanctuary, Karnataka.



Ancistrocladus heyneanus in fruiting at
Someshwara WLS, Karnataka

Desmodium heterocarpon in flowering at
Someshwara WLS, Karnataka

Dr. Rashmi Dubey, Scientist 'D' identified seven fungi species collected from Sanjay Gandhi National Park, Maharashtra.

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

Sri D. Jesubalan, Bot. Asst. identified four Pteridophyte species collected from Pushpagiri Wildlife Sanctuary, Karnataka and studied the spore morphology of one Pteridophyte species under Scanning Electron Microscope (SEM).

Sri D. Tripathi, Senior Project Fellow identified four Pteridophyte species collected from Kudremukh National Park, Karnataka.

Ms. Shreya Sengupta, Senior Project Fellow examined 196 slides of microfungi collected from Biligiri Rangaswamy Temple Wildlife Sanctuary, Karnataka.

Public service rendered

Dr. P. Lakshminarasimhan, Scientist 'E' & HoO provided scanned images of Holotype and Isotype of *Corynandra elegans* to Dr. M. Ahmendullah, former Scientist, Hyderabad.

Dr. P. Lakshminarasimhan provided portraits of eight eminent botanists of India (Dr. H. Santapau, Dr. E.K. Janaki Ammal, Dr. K. Subramanian, Dr. K.M. Matthew, J.F. Duthie, J.S. Gamble, C.E.C. Fischer and N. Wallich) to Dr. K. Ravikumar, Professor & Head, National Herbarium of Medicinal Plants and Repository of Raw Drug, School of Conservation of Natural Resources, Trans Disciplinary University (TDU), Foundation for Revitalisation of Local Health Traditions (FRLHT), Bangalore.

Dr. Lakshminarasimhan reviewed three manuscripts, two for *Journal of Threatened Taxa* (JOTT) and one for *Bangladesh Journal of Plant Taxonomy*.

Dr. J. Jayanthi, Scientist 'D' reviewed one manuscript for *Bangladesh Journal of Plant Taxonomy*.

Dr. Sukumar Bhaktaa, Bot. Asst. identified 15 algal species received from Karunya University, Coimbatore. During this month 13 plant species were identified and issued authentication certificates to students from B. Pharm, M. Pharm. colleges, Ph.D. and P.G. students from different institutions.

Meetings /seminars /programmes attended

Dr. P. Lakshminarasimhan attended the inaugural function on 02.01.2017 as Chief Guest in the National Workshop on "Grass Systematics" held during 02.01.17 to 11.01.17 under Centre for Education, Learning and Research Training in Angiosperm Taxonomy Project organized by Department of Botany, Shivaji University, Kolhapur. Dr. Lakshminarasimhan delivered the inaugural address and also made a presentation on Herbarium Techniques.



Photo: WRC

Dr. P. Lakshminarasimhan as Chief Guest in the Grass Systematic Workshop at Kolhapur University



Dr. P. Lakshminarasimhan delivering inaugural address in the Grass Systematics Workshop

Sri Amit Pandey, Sr. Pres. Asst. and Smt. Shreya Sengupta, SPF attended a workshop on “Computational methods in life sciences” at Ahmednagar organized by the New Arts, Commerce and Science College in association with BCUD, Savitribai Phule Pune University on 10.01.2017 and 11.01.2017.

National Youth Day

Arranged a training programme at WRC, BSI, Pune as per instructions of MoEF & CC & BSI Hqrs, on Digital payments in commemoration of National Youth Day (12.10.17). Sri Suhas Bandu Dhas, Asst. Manager, Nodal Regional Office, Union Bank of India, Pune gave a presentation to all officers and staff on 25.01.2017.

Visitors/students

A total of 19 Post Graduate students and Asst. Professor from Dept. of Applied Botany, Kuvempu University, Karnataka, visited WRC office and museum on 09.01.2017.

During this month eight research students from different parts of Maharashtra such as Phursungi, Pune, Solapur & Kolhapur visited WRC for herbarium and library consultation.

Publication

Bhattacharjee, B., Mukherjee, S.K. and Lakshminarasimhan, P. 2016. Taxonomic account of an Indian endemic, monotypic genus *Adenoon* Dalzell with a note on lectotypification of *Adenoon indicum* Dalzell. *Tropical Plant Research* 3(3): 649-653.

Neelima, A.M. and Kumar, S. 2016. *Paramparik Gyan Ankeeya Pustakalay* (Traditional Knowledge Digital Library) - *Rakshan ka Bharateeya Tantra. Vanaspati vani* 25: 101-103.



Photo: A.D. Pandey

Presentation on Digital payments by Dr. P. Lakshminarasimhan at WRC, BSI, Pune

Dr. P. Lakshminarasimhan

Scientist 'E' & HoO



PLANT OF THE MONTH

Pterygota alata (Roxb.) R.Br. (Malvaceae) is a tall tree, commonly known as Buddha coconut tree due to its coconut like woody fruit. It is native to East and Southeast Asia, but commonly grown in many tropical Botanic Gardens. It can be planted as Avenue tree for its cylindrical straight trunk without any branches up to 10 meters.

Photo: D.L. Sirodhkar

अण्डमान निकोबार द्वीप समाचार

1910 पोर्ट ब्लेयर, अण्डमान, 11 जनवरी 2017 web: www.bsi

वनस्पति सर्वेक्षण के वैज्ञानिक द्वारा अंडमान द्वीपसमूह से अदरक (जिन्जर) की नई जाति की खोज

पोर्ट ब्लेयर, 10 जनवरी (विश्वभारत) की नई जाति की खोज अण्डमान द्वीपसमूह से की है। जिसका वैज्ञानिक नामकरण जिन्जीबर प्सोडोस्क्वार्टरुम की रूप में किया गया है। इन द्वीपों की जटिल वास्तु संरचना में खोज करने वाले वैज्ञानिकों ने अपनी विशेषता धारण करने वाले इन द्वीपों में नई जाति की खोज की है। यह वैज्ञानिक एवं वैज्ञानिक, भारतीय वनस्पति सर्वेक्षण की खोज में काम कर रहे हैं। नई जाति की खोज विशाल जंगल के लिए एक नई खोज है जो कि नई एवं विभिन्न अण्डमान के व्यापक और महान खोजों का



परिणाम है। इस नई जाति (जिन्जीबर प्सोडोस्क्वार्टरुम) का वैज्ञानिक विशेषण एवं विस्तृत वर्णन 'इन्टरनैशनल जर्नल ऑफ़ टैक्सोनॉमिकल एंड प्लांट जिनैटिक्स' में टैक्सोनॉमिकल एवं वैज्ञानिक नामकरण के माध्यम से किया गया है। यह नई जाति अब तक जंगल में जिन्जीबर जातियों से मिली है। इसमें नई जाति की खोज का, जंगल से एक नया वैज्ञानिक एवं वैज्ञानिक, जिन्जीबर जाति एवं एक नया वैज्ञानिक एवं वैज्ञानिक, जंगल से एक नया वैज्ञानिक एवं वैज्ञानिक, अदरक (जिन्जीबर) की खोज में 443 जातियाँ विश्व के विभिन्न वैज्ञानिकों द्वारा टैक्सोनॉमिक, वैज्ञानिक एवं टैक्सोनॉमिकल जानकारी से 20 जातियाँ भारत में और 67 जातियाँ इन द्वीपों में पायी जाती हैं।



New Ginger species with medicinal properties found in Andamans



Scientific paper
A scientific paper providing details of the new species, authored by Mr. Singh and BSI director Paramjit Singh, was recently published in international botanical journal *Nordic Journal of Botany*.
Like other species of Ginger, this new species is edible and can be propagated vegetatively from the rhizome. The planted rhizomes were successfully vegetatively propagated at the BSI garden at Port Blair after transplantation.
Species belonging to genus *Zingiber* are monocotyledonous flowering plants whose rhizomes are widely used as a spice or a traditional medicine. Commonly used species of *Zingiber* (*Zingiber officinale*) known for its aromatic smell is cultivated widely across India.

The fresh extract of tuberous roots is used to treat abdominal pain by tribals
Scientists of the Botanical Survey of India (BSI) have found a new species of *Zingiber* (commonly referred as Ginger) from the Andaman and Nicobar Islands. The species *Zingiber pseudosquaratum*, new to science, belonging to genus *Zingiber*, was already used by the local Particularly Vulnerable Tribal Groups (PVTGs) of the Andamans for its medicinal values.
During an expedition to north and middle Andaman, one of local guides, who was a Nicobarese, shared his traditional knowledge about this species, which was so far hidden from science.
After collecting and systematically analysing the species, scientists found that the new species indeed possesses ethno-medicinal uses.
"The fresh extract [juice] of fleshy tuberous roots is used to treat abdominal pain and anti-helminthic troubles by Nicobarese and certain other tribal communities," Lal Ji Singh, taxonomist and one of the scientists behind the discovery, told *The Hindu*.
"This pseudo stem of the new species is predominantly red in colour. Flowers have a vermilion tinge and dehiscent fruit [fully mature fruits] are lens shaped. Inflorescence buds are urceolate in shape. The species has got tuberous root," Mr. Singh said. The morphological features of this species makes it distinct from other species belonging to the genus *Zingiber*.
141 species
As per scientific information available, there are 141 species of genus *Zingiber* are distributed throughout tropical Asia, including China, Japan and tropical Australia. Of these, 29 are reported from India, which include seven (latest being *Zingiber pseudosquaratum*) from Andaman and Nicobar Islands. Most of the species of these Gingers are endemic to India.
The tribes of the Andaman and Nicobar Islands have interesting usage of other species of *Zingiber*. For instance, Shompen and Nicobar tribes use various plant parts of another species of *Zingiber* (*Hornstedtia finlayi*) as herb repellent and, transpiration. Rhizome extracts and leaf pest are applied on body during extracting honey from honeycomb.



BSI scientists discover new species of ginger in isles



PORT BLAIR, JAN 10—/ Scientists of the Botanical Survey of India (BSI), Regional Centre here has discovered a new species of ginger in the Andaman and Nicobar Islands. According to information, the species, *Zingiber pseudosquaratum*, new to science, belonging to genus *Zingiber*, has been used by the PVTGs (Particularly Vulnerable Tribal Groups) of these islands for years owing to its medicinal values.
After collecting and systematically analysing the species found in the North and Middle Andaman region, scientists have found that the new species indeed possesses ethno-medicinal uses.
"The fresh extract of fleshy tuberous roots is used to treat abdominal pain and anti-helminthic troubles by Nicobarese and certain other tribal communities. The pseudo stem of the new species is predominantly red in colour. Flowers have a vermilion tinge and fully mature fruits are lens shaped. Inflorescence buds are urceolate in shape. The species has got tuberous root and the morphological features of the species makes it distinct from other species belonging to the genus *Zingiber*," according to BSI.
In a study published in the *Nordic Journal of Botany* authored by Dr. Lal Ji Singh and Director of BSI, Dr. Paramjit Singh, researchers said that the species can be distinguished by the presence of a small red coloured pseudostem, urceolate or prolate inflorescence bud, very long underground peduncle, orange red (vermillion) lens shaped dehiscent fruit, red coloured seeds covered by a white aromatic aril. Like other *Zingiber* species may also have medicinal potential. Indian taxonomist Dr. Singh said, "Zingibers have been found beneficial as a drug/ remedy for various health problems. The discovery of new species can open new avenues for research and enhance availability of potential," says Dr. Singh.
Species belonging to genus *Zingiber* are monocotyledonous flowering plants whose rhizomes are widely used as a spice or a traditional medicine. Commonly used species of *Zingiber* (*Zingiber officinale*) known for its aromatic smell is cultivated widely across India. As per scientific information, there are 141 species of genus *Zingiber* are distributed throughout tropical Asia, including China, Japan and tropical Australia. Of these, 29 are reported from India, which include seven (latest being *Zingiber pseudosquaratum*) from Andaman and Nicobar Islands.

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