

# BSI NEWSLETTER

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CGO Complex, 3<sup>rd</sup> MSO Building, Block – F  
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Kolkata – 700 064



## HEAD QUARTERS, KOLKATA

For the ongoing projects such as “Studies on wild mushrooms of Sikkim”, “Wood rotting fungi of Rajmahal hills”, “Studies on the Macrofungi of AJCBIBG” , “Hot spring Algae of Rajgir and Mungar, Bihar”, “Revision of the family Metzgeriaceae in India”, “Liverworts and Hornworts Flora of Darjeeling District, West Bengal”, identification, drawings, microphotographs and descriptions were made by the scientific officials of Cryptogamic section.

Dr. R.K. Gupta, Scientist ‘D’ submitted the manuscript, “Algae of India: A Checklist of Indian Diatoms, (Vol. 4) along with index to Botanical name for publication.

Dr. Kanad Das, Scientist ‘D’ compiled the text, plates, tables for submission of the final report on “Studies on the Macrofungi of AJCBIBG”.

### Public service rendered

Dr. A.B.D. Selvam, Scientist ‘D’ evaluated a Ph.D. thesis, “Mode of Action of *Phyllanthus amarus* Schum & Thonn. collected from in and around Kolli hills, Namakkal district, Tamil Nadu, India” by Mr. P. Subramaniam, University of Madras.

Dr. Kanad Das reviewed a manuscript for the journal *Mycological Progress*.

### Publications

Chakraborty, D., Vizzinni, A. and Das, K. 2018. Two new species and a new record of the genus *Tylopilus* (Boletaceae) from Indian Himalaya with morphological details and phylogenetic estimations. *MycoKeys*.  
Doi: 10.3897/mycoKeys.33.23703.

Gupta, R.K. 2018. Collection preservation and identification of algae *In*: Maity, D. (ed.), Taxonomy: Theory and Practice. *Proceeding of first international workshop under Taxonomy Training Centre*, pp. 272–277. AICOPTAX, MoEF & CC, Govt. of India. Ruby Das, Hooghly.

Selvam, A.B.D. 2018. Protocols for Identification of Endangered Indian Medicinal Plants. *In*: Maity, D. (ed.), Taxonomy: Theory and Practice. *Proceeding of first international workshop under Taxonomy Training Centre*, pp. 265–271. AICOPTAX, MoEF&CC, Govt. of India. Ruby Das, Hooghly.



## CENTRAL NATIONAL HERBARIUM, HOWRAH

One botanical exploration tour was conducted for the project, Flora of Betla National park, Latehar, Jharkhand (ca 100 km<sup>2</sup>) by Sri P.P. Ghoshal, Botanist from 24th March to 3rd April 2018 in different forest blocks of Baresand, Maromar, Saidhup and Betla forest ranges. A total of ca. 300 specimens under 120 field numbers have been collected. Dr. Pushpa Kumari, Scientist 'D' and Sri Shyam Biswa, Bot. Asst. visited National History Museum, London to digitize the Indian specimens housed at BM.

### Herbarium identification

Dr. V.P. Prasad, Scientist 'D' corrected the identity of six Cyperaceae specimens. Dr. Vinay Ranjan, Scientist 'D' and Sri Anant Kumar, Bot. Asst. identified specimens of 17 field numbers belonging to 10 species collected from Neora Valley National Park, Darjeeling district, West Bengal. Dr. O.N. Maurya, Scientist 'C' identified specimens of 20 field numbers collected from Vikramshila Gangetic Dolphin Wildlife sanctuary, Bhagalpur, Bihar. Sri P.P. Ghoshal identified specimens of eight field numbers collected from of Betla National park, Latehar, Jharkhand. Dr. Avinash Bharati, Scientist 'B', Identified 28 specimens collected for the project, 'Indicator flora of eco-sensitive zone of Nakti dam Bird Sanctuary, Jamui district, Bihar'.

### Public Service rendered

Dr. G. Krishna, Bot. Asst. identified/authenticated plant samples (Tech-II) sent or brought from different institutes/organizations viz., Kalyani University, Visva Bharati University, Gujarat Ayurvedic University Jamnagar, Shakomato Tea Estate, Assam, Darsanlal Jagdishprasa Pvt. Ltd., Gurunanak Institute of Pharmaceutical Science & Technology, NSHM Knowledge campus.

Dr. Subir Bandyopadhyay, Scientist 'B' reviewed two manuscripts for the journal *Nelumbo* and one manuscript for the journal *Rheedeia*.

Dr. V. Sampath Kumar, Scientist 'D' reviewed an article for the *Journal of Economic and Taxonomic Botany* and sent the corrections and suggestions to the Managing editor of the journal. Similarly, for *Journal of Threatened Taxa (JoTT)*, review was made and sent it to the editors.

Dr. K. Karthigeyan, Scientist 'D' reviewed one article received from *Rheedeia*.

### Meeting attended/workshop organised

Dr. A. Bharati attended a meeting with technical experts of CSICO, HP, Z-COM, GS computers, Vortex Company, D-link, Sea Info Tech. and Ruckus regarding establishment of Wi-Fi infrastructure in the CNH building.

Hindi workshop organized by Central National Herbarium on 11.04.2018, which was attended by th administrative and scientific officials.

### Visitors/students

Sri Suman Karmakar from Dept. of Botany, Jangipur College, Murshidabad for consulting the genus *Habenaria* in General Herbarium on 02.04.2018.

Dr. Sahabuddin Ahmed and Ms. P. Patwari, Asst. Prof., Dept. of Botany from Mangaldai College, Assam on 02.04.2018.

Four students of B.Sc. (Botany Hons.) from HMM College for Women, Dakshineswar Kolkata on 06.04.2018 on educational tour.

Three students of B.Sc. (Botany Hons.) on educational tour from Ramsaday College, Howrah on 10.04.2018.

Dr. Moritz von Brescivs from Germany in consulting Wallich Correspondence in Type Herbarium II on 13.04.2018.

13 students of M.Sc. (Botany) on educational tour from Lady Brabourne College, Kolkata on 27.04.2018.

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

## INDUSTRIAL SECTION INDIAN MUSEUM, KOLKATA

The botanical paintings by Roxburgh are being interpreted with updated nomenclature. Under this project, two members of Poaceae – *Andropogon sorghum* Roxb. and *A. tridentatus* Roxb. were interpreted and eight members viz., *Eulaliopsis binata* (Retz.) C.E.Hubb., *Panicum brevifolium* L., *P. miliaceum* L., *P. repens* L., *Saccharum officinarum* L., *S. procerum* Roxb., *S. spontaneum* L. and *Thysanolaena latifolia* (Roxb. ex Hornem.) Honda have been described.

### Database of Herbarium Specimens

As a part of preparing a database of herbarium specimens at BSIS, 115 numbers of Dicot herbarium specimens were listed and documented.

### Public service rendered

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

### Exhibition/training/meeting attended

Sri S.K. Sharma, Sr. Presv. Asst. attended the exhibition on the Botanical Heritage of India from 31st March to 6th April 2018 at Botanical Garden of Indian Republic, Noida.

A training programme was organized on e-Auction, e-Tendering, Smart Payment/e-Wizard Systems on 18.04.2018 at ISIM under e-Governance programme launched by the MoEF & CC, New Delhi.

Dr. M. Bhaumik, Scientist 'D' & HOO

attended the Head of the Office meeting on 23.04.2018 at CNH, Howrah to discuss progress and forthcoming annual Action Plan programme.

### Visitors/students

Dr. E. Gajalakshmi and Sri P.S. Das, both Asstt. Lib. Inform. Officer, National Library, Kolkata and Prof. Dr. P.T. Balaram, Bisva Bharati University, Shantiniketan visited Botanical Gallery on 12.04.2018.

### Publications

Datta, S., Sinha, B.K., Bhattacharjee, S. and Seal, T. 2018. Management of Invasive Alien Species (IAS) of West Bengal via bioprospecting for a potential source of food supplement. *Internatl. J. Food Sci. Nutrit.* 3 (2): 89–94.

Bhaumik, M. 2018. 'Botanical tour to Di'Ering WLS, Arunachal Pradesh'. In: S.K. Borthakur, A. Bawri and N. Nath (eds.). *Advances in Botanical Research in North east India*, pp. 1–23. EBH Publishers, Guwahati. ISBN: 978-93-86302-52-6.



Photo: ISIM

BSI officials attending the training programme on e-Auction, e-Tendering, Smart Payment/e-Wizard Systems at ISIM, BSI, Kolkata

– Dr. Manas Bhaumik  
Scientist 'D' & HoO

## ANDAMAN & NICOBAR REGIONAL CENTRE, PORT BLAIR

Total 211 numbers of herbarium specimens belonging to the families Araceae, Arecaceae and Pandanaceae were scanned.

### Public service rendered

Dr. C.P. Vivek, Bot. Asst. associated with Andaman Nicobar Tribal Research Institute (ANTRI), Port Blair for the ethnomedicinal study among Jarawa Tribes at Tirur Region, in South Andaman from 16th to 20th 2018.

### Function/meeting(s)/seminars organised/attended

Organized the valedictory function, Green Skill Development Programme: Advanced Course on 07.04.2018. Sri D.M. Shukla, PCCF (Wild life), Department of Environment and Forests, Andaman and Nicobar Administration was the chief guest for the valedictory function.

Dr. C.P. Vivek attended the executive committee meeting held at the office of the DFO, Baratang as representative of ANRC, BSI on 09.04.2018, for assessing carrying capacity of the Lime Stone Caves at Baratang. Dr. Vivek prepared the list and other details of mangrove species reported from the said area.

Dr. Lal Ji Singh, Scientist 'D' & HOO facilitated the inspection of ongoing work (executed by CPWD) of ANRC, BSI by Er. A.K. Rastogi, Chief Engineer, CCU Division, MoEF & CC, New Delhi from 11th to 15th April 2018.

Dr. Singh attended thesis seminar on "Biology and Molecular Characterization of Mackerels of Andaman with special emphasis on *Rastrelliger kanagurta* Cuvier" at School of Life Science, Department of Ocean Studies and Marine Biology, Pondichery University, Brookshabad Campus, Port Blair on 16.04.2018.

### Visitors /students

Ms. Sangeeta Rani Das and Ms. T.M. Rajeswari, M.Sc. student, JNRM visited herbarium and library for consultation on 03.04.2018.

Er. A.K. Rastogi, Chief Engineer (CCU), MoEF&CC, New Delhi visited office and Garden on 11.04.2018.

Ms. Karthika Devi and Ms. Dhana Laxmi, M.Sc. student, JNRM visited herbarium and library for consultation on 11.04.2018.

Dr. N. Unnamalai, Director, along with four Principal scientist of Sri AMM Murugappa Chettiar Research Centre - MCRC, Chennai visited garden on 12.04.2018.

Sri Chanchal Chattrjee, BSI Headquarter, Kolkata along with 15 members visited office on 18.04.2018.

Sri Tapan Mandal, Retd. IAS visited office on 17.04.2018.

Ms. C. Dayani, National Centre for Biological Science, Bangalore visited herbarium for consultation on 21.04.2018.

Sri Akshay Surendra, M.Sc. student, National Centre for Biological Science, Bangalore visited herbarium for consultation on 24.04.2018.

Sri Sandeep Mukherjee, Under Secretary, Department of Personnel & Training, Govt. of India, New Delhi visited on 25.04.2018.



Photo: C.P. Vivek

Sri D.M. Shukla, PCCF (Wild life) addressing during valedictory function GSDP-Advanced Course



Photo: G.A. Ekka

Sri Tapan Mandal, Retd. IAS at Herbarium, BSI, ANRC

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



## ARID ZONE REGIONAL CENTRE, JODHPUR

Specimens more than 100 field numbers has been identified during the period under report, which were collected for various projects.



Photo: AZRC

Trainee Forest Guard of Rajasthan Forest department  
Jodhpur at AZRC Botanic Garden, Jodhpur



Dr. P. Harikrishna delivered lecture on Herbarium  
Techniques to Trainee Forest Guards



Photo: AZRC

Dr. C.S. Purohit delivered lecture on Rare and  
threatened plants of Arid Zone Region to Trainees



Trainee Forest Guard of Rajasthan Forest department  
Jodhpur visited to AZRC Herbarium, Jodhpur

### Lecture delivered

Dr. C.S. Purohit, Scientist 'B' delivered a lecture on Rare and threatened plants of the Arid Zone Region to 70 Forest guard trainees of Rajasthan forest department, Jodhpur division at Conference Hall, BSI-AZRC, Jodhpur on 06.04.2018.

Dr. P. Harikrishna, Bot. Asst. delivered a lecture on Herbarium Techniques to 70 Forest guard trainees of Rajasthan forest department, Jodhpur division at Conference Hall, AZRC, BSI, Jodhpur on 06.04.2018.

### GSDP: Advance Course for Para-taxonomists

Organized valedictory function of GSDP-Advance course and certificate distribution to GSDP trainees on 04.04.2018 at Conference Hall, AZRC, BSI, Jodhpur.

### Visitors/Students

Sri Poona Ram, Forest Range Officer, Sri Manak Lal Forest Range Officer and 70 Forest guard trainees of Rajasthan forest department, Jodhpur division visited BSI, AZRC, Jodhpur on 06.04.2018.

– Sri Vinod Maina  
Scientist 'D' & HoO

## CENTRAL REGIONAL CENTRE, ALLAHABAD

Dr. Arti Garg, Scientist 'D' conducted a tour to the Birbal Sahni Institute of Palaeosciences, Lucknow during 2nd to 6th April 2018 in connection with the project, 'Studies of fossil and living plants with reference to the impact of climate change on flora of Gangetic Plains and Central India'. Completed pollen analysis through SEM and LM studies for five species of the genus *Ludwigia* L. and compared the living pollen with the pollen grains recovered from fossil sediments of 65 mya.

Documentation of 334 species completed for the project, 'Floristic diversity of Kishanpur Wildlife Sanctuary, Lakhimpur Kheri, U.P.'

Recorded phenological data of 38 species for 'Ex-situ conservation of Endemic, economic and threatened plant species in the associated garden of CRC and documentation of phenological data on flowering and fruiting every month.'

Dr. Nitisha Srivastava, Bot. Asst. studied epidermal biology of leaves of *Rauwolfia serpentina* (L.) Benth. ex Kurz. and *R. tetraphylla* L.

### Herbarium specimen identification

A total of 83 specimens were identified in connection with the project, 'Identification of old unidentified specimens of BSA'.

### Meeting attended

Dr. G.P. Sinha, Scientist 'E' & HoO attended TOLIC meeting on 26.04.2018 at Aayakar Bhawan, Allahabad.

### Public services rendered

Sri Vineet Singh, Bot. Asst. authenticated four specimens received from a Research Scholar, Govt. D.B. Girl's P.G. College, Raipur, Chhattisgarh.

Dr. Nitisha Srivastava authenticated two specimens received from an Assistant Professor of Dr. Radhabai Govt. Navin Girls College, Raipur, Chhattisgarh.

Two M.Sc. Botany students of Ewing Christian College (ECC), Allahabad were permitted to do scientific work for their M.Sc. dissertation on 'Diversity of Stomata and Trichomes in Family Rubiaceae and Euphorbiaceae' from 18th to 26th April 2018 under the supervision of Dr. Sheo Kumar, Scientist 'E'.

### Visitor

Lt. Colonel Ana of Indian Army, Old Cant., Allahabad visited the Garden and was provided with three medicinal herbaceous plant species.

### Publication

Singh, P., Tandon, P.K. and Singh, K.P. 2018. Heavy metals accumulation of epiphytic foliose lichens as biomonitors of air quality in Srinagar city of Garhwal hills, Western Himalaya (India). *Curr. Res. Environ. Appl. Mycology* 8(2): 282–289.



Photo: Dr. Sheo Kumar

Flowering of *Alpinia zerumbet* in CRC Garden

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



## DECCAN REGIONAL CENTRE, HYDERABAD

Dr. L. Rasingam, Scientist 'D' & HoO, Dr. Sankararao Mudadla, Scientist 'B' and Sri S. Nagaraju along with the Project Fellows and Project Assistants carried out one field tour for the project, 'Non Detrimental Findings (NDF) studies on Red Sanders (*Pterocarpus santalinus* L.f.)' to Chittoor East Forest Division from 11th to 21st April 2018 for the assessment of Red sanders.



Dr. L. Rasingam enumerating Red sanders tree at Chittoor East Forest division



Sri S. Nagaraju enumerating Red sanders at Chittoor East Forest division

### Identification of herbarium specimens

Dr. G. Swarnalatha studied and identified nine micro lichen specimens.

Dr. J. Swamy identified three specimens from BSID general herbarium.

### Digitisation of Herbarium specimens

300 herbarium sheets were scanned belonging to various families at BSID.

### Public service rendered

Dr. L. Rasingam identified one specimen for Centre for Pharmaceutical Sciences, JNTU, Hyderabad.

Dr. G. Swarnalatha identified one lichen specimen for Sri Lingaraj Nayak, Research Scholar, Assam Down Town University.

Dr. J. Swamy Identified four specimens for two Pharmacy colleges of Andhra Pradesh and Telangana.

### Meeting/programme attended

Dr. L. Rasingam and Dr. Sankara Rao Mudadla pursued the land allotment matters with the State Principal Secretary, Government of Andhra Pradesh, Department of Environment, Forest, Science and Technology, at State Secretariat, Velugapudi, Vijayawada and PCCF, Andhra Pradesh Forest Department, Guntur on 23.04.2018.

### Publication

Prameela, R., Swamy, J. and Venkaiah, M. 2018. *Typhonium inopinatum* Prain (Araceae): An Addition to the Flora of Andhra Pradesh, India. *Ann. Pl. Sci.* 7(4): 2147–2149.



Photo: DRC

Dr. M. Sankararao during field work at Srikalahasti, Chittoor East Forest division

– Dr. L. Rasingam  
Scientist 'D' & HoO



## EASTERN REGIONAL CENTRE, SHILLONG

Field tour conducted for Flora of West an South-West Khasi hills district, Meghalaya with reference to the sacred groves by Dr. Chaya Deori, Scientist 'D' and Dr. S.R. Talukdar, Bot. Asst. from 31st March to 5th April 2018 and identified 63 species for Flora of West and South-West Khasi hills district, Meghalaya with reference to the sacred groves.

Taxonomic Revision of genus *Riccia* (Marchantiophyta) in India by Dr. S.K. Singh, Scientist 'D' consulted literature pertaining to study of genus *Riccia*, studied six samples of *Riccia* taken on loan from NBRI, Lucknow and identified namely *Riccia crystalline* and *Riccia fluitans*.

Fungi isolated, identified up to genus level, for six species viz., *Selenosporella aristata*, *Cylindrocladium* sp., *Matsushimo mycesindicus*, *Varicosporium* sp., *Beltraniella* sp. and *Subulispora* sp. and re examined three aquatic fungi: *Speirospisedato spora*, *Setosynnemaisthmo sporum* and *Yuccamyces purpureus* and conducted one local tour for Taxonomy phylogeny and ex-situ conservation of Micro-fungal diversity from Northeast India with special emphasis on fungi associated with endemic and threatened plants of Meghalaya by Dr. Ashish V. Prabhugaonkar, Scientist 'B'.

Observed and recorded phenological data of flowering and fruiting of 72 plant species viz., *Aesculus assamica*, *Allamanda cathartica*, *Alpinia malaccensis*, *Amomum pterocarpum*, *Baccaurea ramiflora*, *Bixa orellana*, *Bombax ceiba*, *Bulbophyllum delitescens*, *B. scabratum*, *B. umbellatum*, *Callistemon citrinus*, *Caryota urens*, *Catunaregam spinosa*, *Cephalantheropsis obcordata*, *Citrus medica*, *Clerodendrum chinense*, *Coelogyne flaccida*, *C. micrantha*, *C. punctulata*, *C. schultesii*, *C. stricta*, *C. viscosa*, *Cymbidium devonianum*, *C. eburneum*, *C. lancifolium*, *Dendrobium anceps*, *D. aphyllum*, *D. densiflorum*, *D. fimbriatum*, *D. hookerianum*, *D. jenkinsii*, *D. lindleyi*, *D. lituiflorum*, *D. nobile*, *D. ochreatum*, *D. palpebrae*, *D. ruckeri*, *D. sulcatum*, *D. wardianum*, *Dillenia indica*, *Dracaena angustifolia*, *Elaeocarpus floribundus*, *Eria amica*, *E. arunachalensis*, *E. paniculata*, *E. lasiopetala*, *Erythrina stricta*, *Erythrodes hirsuta*, *Esmeralda cathcartii*, *Eurya acuminate*, *Exbucklandia populnea*, *Ficus oligodon*, *Gastrochilus calceolaris*, *G. distichus*, *Gnetum gnemon*, *Goodyera procera*, *Iris laevigata*, *Kaempferia rotunda*, *Mahonia pycnophylla*, *Melastoma malabathricum*, *Mucuna macrocarpa*, *Otochilus fuscus*, *Panisea uniflora*, *Phaius flavus*, *P. tancarvilleae*, *Phalaenopsis mannii*, *Pholidota articulata*, *P. convallariae*, *Rauvolfia serpentina*, *Renanthera imschootiana*, *Rhynchostylis retusa* and *Vanda bicolor* which are available in the garden which are available at EBG, Barapani by Dr. M. Murugesan, Scientist 'B' and Sri L.R. Meitei, Bot. Asst.

### Public service rendered

Identified about 14 samples of specimens received from various institutions.

### Workshop/meeting attended

Dr. A.A. Mao attended Global Rhododendron Conservation Consortium Workshop at Oak Spring Garden Foundation, Virginia, USA, from 16th to 18th April 2018.

Dr. S.K. Singh attended Governing Body meeting of Meghalaya State Medicinal Plants Board in Office Chamber of Chief Secretary to the Govt of Meghalaya & Chairman, State Medicinal Plants Board Shillong on 17.04.2018.

### Visitors/students

One professor, five lecturers, 13 research scholars, 60 students and 20 other visitors from various Institutions, Colleges and Universities visited the Centre.

### Publications

Deb, C.R., Rout, G.R., Mao, A.A., Nandi, S.K., Singha, Nilasana R.K., Vijayan, D., Langhu, T., Kikon, Z.P., Pradhan, S., Mohd. Tariq and Swain. D. 2018. *In vitro* propagation of some threatened plant species of India. *Curr. Sci.* 114(3): 567–575.

Pratibha, J., Mao, A.A. and Prabhugaonkar, A. 2018. Two novel species of *Neosporidesmium* from India. *Mycobiota* 8: 9–14.

– Dr. A.A. Mao  
Scientist 'F' & HoO

## NORTHERN REGIONAL CENTRE, DEHRADUN

Identified total 47 species and made description for 16 species of Angiosperm in connection with the projects, Flora of Himachal Pradesh Vol. I, Flora of Sechu-Tuan Nala Wildlife Sanctuary, Chamba District, Himachal Pradesh, Flora of Binsar Wildlife Sanctuary, Floristic Diversity of Sukhna Lake Wildlife Sanctuary, Trees of Dehradun city, Revision of Genus *Adiantum* L. in India.

### Digitization of Herbarium specimens

Scanned and digitized 125 specimens of the family Rubiaceae and of Pteridophytes.

### Public services rendered

Identified four species for visitors from different institutes/Universities.

### Meetings/workshop attended

Dr. Kumar Ambrish, Scientist 'D' & HoO attended a consultation Meeting on proposed Dehradun Research and Academic Consortium' on 28.04.2018 at Wildlife Institute of India.

### Inauguration of Green House

Sri C.K. Mishra, Secretary, MoEF & CC, New Delhi and Director, BSI visited the centre. Hon'ble Secretary, MoEF & CC, New Delhi inaugurated the green house at Botanical Garden NRC on 26.04.2018.

### GSDP valedictory function

GSDP Valedictory function was organized at center on 12.04.2018.

### Publication

Panwar, G.S., Manikandan, R., Kumar, P. and Srivastava, S.K. 2018. High Attitude Medicinal Plant diversity and Conservation strategies in Uttarakhand: An overview. *Ind. Forest.* 144 (3): 286–296.

– Dr. Kumar Ambrish  
Scientist 'D' & HoO



Photo: Devraj

Sri C.K. Mishra, Secretary, MoEF & CC, New Delhi  
inaugurating the green house at NRC, BSI, Dehradun

## SOUTHERN REGIONAL CENTRE, COIMBATORE

Dr. J.H. Franklin Benjamin, Scientist 'C' and Sri Rakesh G Vadhyar, Bot. Asst. conducted a botanical exploration to Kanniyakumari WLS, Tamil Nadu from 16th to 27th April 2018 and collected 163 field numbers of plants.



Panoramic view of Muthukuzhivayal Kanyakumari WLS



Silver cascade falls near Kanyakumari WLS



Dr. C. Murugan, Scientist 'D' & HoO and Dr. S. Arumugam, Bot. Asst. conducted a tour to Meghamalai WLS, Tamil Nadu from 19th to 28th April 2018 and collected specimens of 108 field numbers. They also completed identification for 65 field numbers of plants.



*Anoectochilus elatus* (Orchidaceae)



*Carex baccans* (Poaceae)

Dr. S. Kaliamoorthy, Scientist 'D' and Dr. T.S. Saravanan, Bot. Asst. conducted one day field trip to Manjakuttai, Yercaud on 25.04.2018 and introduced six plants in the National Orchidarium and Experimental Gardens (NOEG), Yercaud.



*Carex myosurus* (Poaceae)



*Carex phacota* (Poaceae)

### Identification of herbarium specimens

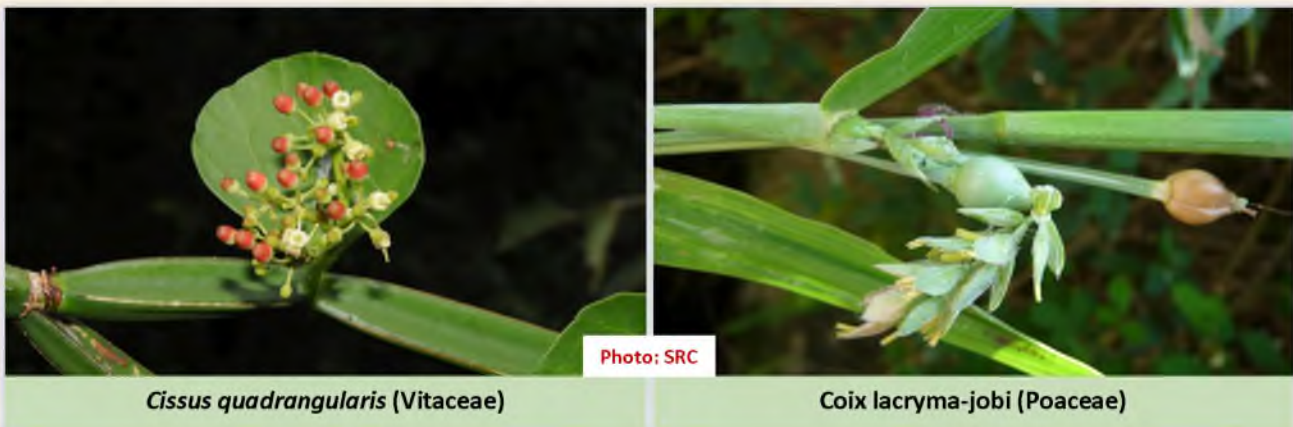
Dr. C. Murugan, Scientist 'D' & HoO and Dr. S. Arumugam, Bot. Asst. completed identification for 65 field numbers pertaining to Meghamalai WLS, Tamil Nadu. Dr. R. Manikandan, Scientist 'D' and Ms. R. Mehala Devi, Sr. Pres. Asst. completed identification for 52 field numbers pertaining to North Cauvery North WLS, Tamil Nadu.

Dr. M. Palanisamy, Scientist 'D' and Dr. S.K. Yadav, Bot. Asst. completed identification for 341 field numbers of seaweed specimens from Goa coast and collected six references pertaining to the study area. In connection with documentation of Phytodiversity, Dr. R. Manikandan, Sri R.K. Singh, Botanist and Ms. R. Mehala Devi updated nomenclatural citations, distribution data and description of one species in the family Caprifoliaceae for Flora of Kerala.

### Ex-situ conservation

Dr. S. Kaliamoorthy and Dr. M.Y. Kamble, Scientist 'D' and his team multiplied 147 samples belonging to 14 taxa, developed 33 seedlings of 5 taxa, 66 cuttings of 6 taxa and recorded the phenological data of 31 plants, including 20 orchids and 11 other angiosperms at the National Orchidarium and Experimental Gardens (NO&EG), Yercaud.





*Cissus quadrangularis* (Vitaceae)

*Coix lacryma-jobi* (Poaceae)

### Scanning Electron Microscopy (SEM)

Ms. R. Mehala Devi and Ms. M. Ananthalakshmi, Sr. Pres. Asst. studying the correlation of SEM images of the tribe Cyperae and Fimbristyledeae from South India. Dr. S. Kaliamoorthy and Dr. T.S. Saravanan collected pollinia of 26 species of orchids for SEM study.

### Public service rendered

Identified 71 plant species for the students / research scholars of various institutions.

A total of 65 digital images of herbarium specimens were provided to various researchers.

Nine Type specimens received from various authors, were deposited in type section.

Dr. M.Y. Kamble and Dr. T.S. Saravanan delivered lectures on “Role of BSI and Flora of India” and “Overview of BSI and conservation methods” respectively to 40 trainees from Karnataka Forest Academy, Gungaragatti, Dharwad on 02.04.2018 during their visit to BSI, NO&EG, Yercaud.

Dr. C. Murugan conducted a public viva-voce examination on Ph.D. thesis, “Pharmacognosy, Phytochemical profile and Pharmacological studies on Selected species of *Capparis* L. (Capparaceae)” by A. Jacintha Tamil Malar on 06.04.2018 at Research Centre for Plant Sciences, St. Mary’s College (Autonomous) Thoothukudi, Tamil Nadu.

### Meetings/conference/programme attended/workshop conducted

A Scientific review meeting of ongoing projects was held at SRC, BSI, Coimbatore on 03.04.2018 under the chairmanship of Dr. C. Murugan. All the scientific personnel attended and presented the progress status of respective projects.

An interview was conducted at SRC, BSI, Coimbatore on 18.04.2018 for the selection of one JRF and one filed assistant under the project, “Reinvestigation on flora of Gulf of Mannar Biosphere Reserve after Tsunami”.

Dr. M. Palanisamy attended the meeting held at Bharathiar University, Coimbatore 25.04.2018 to frame out the M.Phil. Syllabus of Botany for the academic year 2018-2019 onwards.

Research scholars attended a Ph. D viva-voce of title “Studies on conservation strategies, phytochemical analysis and hypolipidemic effect of *Caralluma diffusa*, an endangered medicinal herb of Madukkarai hills, Western Ghats of Coimbatore, Tamil Nadu” on 21.04.2018 in Kongunadu Arts and Science College, Coimbatore.

One day Hindi workshop was conducted at this centre on 13.04.2018 under the chief guest Mr. B. Kavettirangan, BSNL, Coimbatore. All the officials of the centre attended the workshop.

### Visitors/students

During this month, 43 scientific personnel / officials / students / scholars visited the museum, herbarium and library of this regional centre whereas 452 persons in 32 parties visited the NOEG, Yercaud.

– Dr. C. Murugan  
Scientist ‘D’ & HoO



## WESTERN REGIONAL CENTRE, PUNE

Dr. C.R. Jadhav, Botanist identified 20 field numbers for the project, “Floristic survey of Someshwara Wildlife Sanctuary, Karnataka.

Dr. Priyanka Ingle, Scientist ‘B’ identified 15 field numbers for the project, “Floristic diversity of Wan Wildlife Sanctuary, Maharashtra”.

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

Smt. A.M. Neelima conducted SEM studies of capsules and pollinia of three orchids for the project, “Seed morphology and cyto-taxonomy of some selected orchids of Northern Western Ghats”.

Dr. Sukumar Bhakta, Bot. Asst. identified 11 algal samples for the project, “Biodiversity assessment of microalgae from thermal springs of Maharashtra”.

Dr. A. Benniamin, Scientist ‘D’ identified eight species for the project, “Ferns of Karnataka”.

Sri D. Jesubalan, Bot. Asst. identified four field numbers for the project, “Pteridophytic flora of Pushpagiri Wildlife Sanctuary, Karnataka with 10% periphery”.

Sri D. Tripathi, Senior Project Fellow identified four species for the project, “Pteridophyte flora of Kudremukh National Park, Karnataka”.

Dr. Rashmi Dubey, Scientist ‘D’ processed 29 dry samples, nine water samples and SEM studies of two species for the project, “Taxonomic Studies of Micro fungi of Sanjay Gandhi National Park along with its 10% peripheral area”.

Smt. Shreya Sengupta, Senior Project Fellow identified nine micro fungi for the project, “Microfungi of Biligiri Rangaswamy Temple wildlife Sanctuary, Karnataka”.

### Public service rendered

During this month 22 plant specimens identified and issued authentication certificates to students from B. Pharm, M. Pharm. colleges, Ph.D. and P.G. students from different institutions.

### Functions/meetings/seminar attended/lecture delivered

Dr. P. Lakshminarasimhan, Scientist ‘E’ & HoO and Dr. Rashmi Dubey attended the inaugural function of “Vigyanik Rajbhasha Samelan” on 03.04.2018 at Agharkar Research Institute, Pune organized jointly by Agharkar Research Institute, National Chemical Laboratory and NCCS.

Dr. Priyanka Ingle attended the “Vigyanik Rajbhasha Samelan” and presented a paper on the topic ‘*Wan Vanyajiv Abhayaranya ke jangali khadya paudhe*’ during 3rd to 4th April 2018 at Agharkar Research Institute, Pune.

Dr. P. Lakshminarasimhan attended the meeting to discuss the Draft Notification dated 27.02.2017 declaring the Ecologically Sensitive Areas (ESA) of the Western Ghats a Meeting under the Chairmanship of Sri A.K. Mehta, Additional Secretary on 11.04.2018 at MoEF & CC office, New Delhi

Dr. P. Lakshminarasimhan attended a meeting at Central National Herbarium, BSI, Howrah on 28.04.2018 convened by Director, BSI to final Annual Action Plan Programme of BSI, WRC, Pune (2018–2019).

### Visitors

About 45 Sketching enthusiasts from Urban Sketchers Pune (USP) visited BSI, Pune premises for sketching Moti Mansion (Heritage Building) on 22.04.2018, during the World Heritage Day weekend.

– Dr. P. Lakshminarasimhan  
Scientist ‘E’ & HoO

