BSLNEWSLETTER

The monthly electronic newsletter of Botanical Survey of India

June 2018 Volume 5 Number 6















Botanical Survey of India
CGO Complex, 3rd MSO Building, Block – F
5th Floor, DF Block, Sector – I, Salt Lake City
Kolkata – 700 064



HEAD QUARTERS, KOLKATA

For the ongoing projects such as "Studies on wild mushrooms of Sikkim", "Wood rotting fungi of Rajmahal hills", "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. M.E. Hembrom, Botanist prepared ArcGIS map for two species *Coralloderma* sp. (Meruliaceae), and *Kretzschmaria deusta* (Hoffm.) P.M.D. Martin (Xylariaceae).

Dr. D. Singh, Scientist 'D' prepared the database of 37 general liverwort specimens of CAL herbarium. Sri Arvind Parihar, Bot. Asst. accessioned and incorporated three specimens of macrofungi received from Sanjit Debnath, Tripura University, Agartala, Tripura.

Public service rendered

Dr. Monalisa Dey, Scientist 'B' reviewed two research manuscripts for *Journal of Bryology*. Dr. Dey also served as an external examiner in M.Sc. Botany, 2nd Semester practical examination at Vidyasagar University, Midnapore on 08.06.2018.

Dr. A.B.D. Selvam, Scientist 'D', pharmacognostically studied and authenticated a wood sample as wood chips of *Aquilaria malaccensis* Lam. (Thymelaeaceae), which was received from Customs (Preventive), Air Intelligence Unit, N.S.C.B.I. Airport, Kolkata. Dr. Selvam also pharmacognostically studied and authenticated a plant sample as seeds of *Triticum aestivum* L. (Poaceae), which was received from Dr. Debleena Basu, Research Scholar, Indian Institute of Technology, Kharagpur, West Bengal.

Dr. Monalisa Dey acted as a panel member in the selection committee for selection of candidates for the Green Skill Development Programme, Advanced course (Parataxonomist) held on 20.06.2018 at Central National Herbarium.

Lecture delivered

Dr. Kanad Das, Scientist 'D' delivered a lecture as a resource person during in service training of Botanical Assistants "Relevancy of morpho-taxonomy in the era of molecular phylogeny: case studies with Indian mushrooms" organized at Central National Herbarium, Howrah on 28.06.2018.



Dr. Paramjit Singh, Director, BSI on the occasion of the celebration of World Environment Day 2018 at Vigyan Bhawan, New Delhi (left) and at Botanical Garden of Indian Republic, BSI, Noida (right)

CENTRAL NATIONAL HERBARIUM, HOWRAH

Dr. O.N. Maurya, Scientist 'C' has undertaken a field tour to Udaipur Wildlife Sanctuary, West Champaran from 18th to 27th June 2018 and collected 50 field numbers.

Dr. Avishek Bhattacharjee, Scientist 'B' has undertaken two field tours in different places of Rajasthan from 11th to 23rd June 2018 in connection with the project "Preparation of Non Detriment Findings (NDF) report on the Indian Rosewood Tree (*Dalbergia sissoo* and *Dalbergia latifolia*) in India".

Herbarium identification

Dr. Vinay Ranjan, Scientist 'D' and Sri Anant Kumar, Bot. Asst. identified 15 field numbers and 10 species collected from Neora Valley National Park, Darjeeling district, West Bengal.

Sri P.P. Ghoshal, Botanist identified 13 species collected from of Betla National Park, Latehar, Jharkhand.

Public Service rendered

Dr. Shyam Biswa authenticated of plant samples (Tech-II) sent or brought from different institutes/ organizations viz., Malda college, West Bengal; Department of Pharmaceutical Technology, Jadavpur University, Kolkata; Apollo College of Pharmacy, Durg, Chattishgarh; Department of Pharmaceutical Sciences, BIT, Mesra, Ranchi, Jharkhand.

Dr. Subir Bandyopadhyay, Scientist 'B' provided PDF of 12 pages from *Phytotaxa* 351(1) of a paper, 'New synonyms, lectotypifications and taxonomical notes on the genus *Flemingia* (Phaseoleae, Papilionoideae, Leguminosae) from Thai-Indochinese floristic region by Do *et al.* to Sandip Kisan Gavade, Shivaji University, Kolhapur; of 17 pages [Ohashi, H. & K. Ohashi. *Grona*, a genus separated from *Desmodium* (Leguminosae Tribe Desmodieae). *J. Jap. Bot.* 93(2): 104–120] to Dr. M.V. Krishnaraj, Assistant Professor, Department of Botany, Baselius College, Kottayam, Kerala and of five pages from *Indian J. Forest.* 40(4) to Dr. Jaideep Mazumdar, Krishna Chandra College, Hetampur, Birbhum, West Bengal.

Training organised

Two weeks training programme for Botanical Assistants at Central National Herbarium, BSI, Howrah organized by Central National Herbarium from 22nd June 2018 onwards to 05th July 2018.

World Environment Day 2018

World Environment Day was attended by Scientific officials on 05.06.2018 at Acharya Jagadish Chandra Bose Indian Botanic Garden, Botanical Survey of India, Howrah.



Celebration of World Environment Day at Acharya Jagadish Chandra Bose Indian Botanic Garden, BSI, Howrah

Visitors

Sri Santhosh Sathinala, Botanical Artist visited to Central National Herbarium on 01.06.2018.

Sri Kharaf Singh Gautam and other officials from PAO, MOEF & CC, New Delhi, visited to Central National Herbarium on 05.06.2018.

Sri Sandeep Mukherjee, Under Secretary, DoPT visited to Central National Herbarium on 24.06.2018.

Dr. Ravikiran S. Pagare, Assistant Professor, School of Science, Sandip University, Nasik, Maharashrta, consulted herbarium from 27th to 29th June 2018.

Publication

Raju, V.S. and Sampath Kumar, V. 2018. *Polytrias indica* (Poaceae: Andropogoneae): The name, species identity and its distribution in India. *J. Threatened Taxa* 10(7): 11969–11972 http://doi.org/10.11609/jott.3436.10.7.11969-11972.

Dr. P.V. PrasannaScientist 'F' & HoO

ANDAMAN & NICOBAR REGIONAL CENTRE, PORT BLAIR

Herbarium sheets Scanned: 370 numbers of family Cyperaceae.

Herbarium details computerized in EXCEL format: 50 herbarium specimens of family Cyperaceae were fed in the computer in a prescribed format.

Meeting/conference/exhibition/workshop organized/attended

Dr. Lal Ji Singh, Scientist 'D' & HoO attended the exhibition organized by Govt. of India during celebration of World Environmental Day-2018 at Vigyan Bhawan, New Delhi from 1st to 5th June 2018.



Hon'ble Minister Dr. Harshvardhan, MoEF & CC discussing with Dr. Lal Ji Singh about the Eco-friendly biodegradable and re-usable straw displayed in the

Dr. Singh also attended State Environment Ministers Conference at Vigyan Bhawan, New Delhi on 04.06.2018.

Dr. Singh organised quarterly meeting of Departmental Rajbhasha implementation committee on 20.06.2018.

Dr. Singh attended one day workshop on Marine Biotechnology, Biodiversity and Fisheries (WMBBF-2018) at National Institute of Ocean Technology, Ministry of Earth Science, Govt. of India, Port Blair on 28.06.2018.



Dr. Lal Ji Singh delivered a lecture at National Institute of Ocean Technology, Port Blair

Two days Hindi workshop was organized on 28.06.2018 and 29.06.2018.

Public service rendered

Dr. Lal Ji Singh delivered an invited lecture on Plant Diversity of Andaman and Nicobar Islands for one day workshop on Marine Biotechnology, Biodiversity and Fisheries (WMBBF-2018) at National Institute of Ocean Technology, Ministry of Earth Science, Govt. of India, Port Blair on 28.06.2018.

As requested *Areca triandra* Roxb. (05 numbers), *Bentinckia nicobarica* (Kurz) Becc. (05 numbers), *Garcinia dhanikhariensis* S.K. Shrivastava (05 numbers), *Knema andamanica* (Warb.) de Wilde ssp. *andamanica* (05 numbers) and *Pinanga manii* Becc. (fivenumbers) were provided to Botanical Garden of Indian Republic, Noida.

World Environment Day 2018

The ANRC, BSI, Port Blair, observed the World Environment Day on 05th June, 2018 on the theme "Beat Plastic Pollution". A function was organized at the main office Haddo. The Chief Guest of the function, Dr. C. Sivaperuman, Officer-in-charge, ANRC, ZSI, Port Blair.

As a part of the function, Dr. T.A.M. Jagadeesh Ram, Scientist 'D' welcomed the gathering and in the introductory speech he explained the significance of the day and the hazardous effects of plastics on land and water bodies and how it affects the life forms.

On the occasion, a drawing competition for school students was organized. Students form different school were participated in the competition.





Dr. Jagadeesh Ram delivering lecture during celebration of World Environment Day at ANRC, BSI, Port Blair

Drawing competition during the celebration of World Environment Day on 05.06.2018 at ANRC, BSI, Port Blair

International Yoga Day 2018

Celebrated the International Day of Yoga on 21st June, 2018 at the seminar hall. The theme of the day was "Yoga for harmony and health".

The resource person, Dr. Sanjay Mishra, Scientist 'B', displayed the practices in accordance with common Yoga protocol for International Day of Yoga. All the officers and staff of BSI participated in the practice. The information brochures and CD's were distributed to the participants.



The common Yoga protocol for International Day of Yoga-2018 at ANRC, BSI, Port Blair

Visitors

Ms. V. Suhasini, Ph. D. Entomology (Agriculture), Annamalai University visited Library for consultation on 25.06.2018 and 26.06.2018.



Dr. (Mrs.) Nandita Chatterjee Member, Central Administrative Tribunal Calcutta Bench, Kolkata at Herbarium and Garden of ANRC, BSI, Port Blair on 27.06.2018

Dr. (Mrs.) Nandita Chatterjee Member, Central Administrative Tribunal Calcutta Bench, Kolkata visited office and garden on 27.06.2018.

- **Dr. Lal Ji Singh** Scientist 'D' & HoO

ARID ZONE REGIONAL CENTRE, JODHPUR

Total specimens of 112 Field numbers were identified during the period under report.

Photo: AZRC

World Environment Day 2018

Celebrated World Environment Day on 05.06.2018. On this occasion Prof. N.S. Shekawat, Retd. Professor, Dept. of Botany, JNV University was invited as Chief Guest and Dr. Mahendra Singh Rathore, Senior Veterinary Doctor, Govt. Veterinary Polyclinic Ratanada, Jodhpur invited as Guest and Sri Chaina Ram, Principal Senior, Shaheed Bhagat Singh Secondary School, Chandipole, Jodhpur along with 28



Plantation programme at AZRC, Jodhpur on 05.06.2018

students were also invited. Plantation programme was conducted and for school children quiz competition was organized. On this occasion Sri Ravi Prasad, Botanical Asst. delivered a lecture on Beat the plastic pollution.

Visitors

N.S. Shekawat, Retd. Professor, Dept. of Botany, JNV University visited museum on 05.06.2018.

Dr. Mahendra Singh Rathore, Senior Veterinary Doctor, Govt. Veterinary Polyclinic Ratanada, Jodhpur visited museum on 05.06.2018.

Sri Chaina Ram, Principal Senior, Shaheed Bhagat Singh Secondary School, Chandipole, Jodhpur along with 28 students are visited museum on 05.06.2018.

Publication

Kumar, R., Sharma, S. and Diwedi, M. 2018. *Ceropegia mizoramensis* and *C. murlensis* (Asclepiadaceae)-Two new species from Northeast India with phytogenic and morphological evidence support. *Taiwania* 63(2): 163–170.

Sri Vinod MainaScientist 'D' & HoO

CENTRAL REGIONAL CENTRE, ALLAHABAD

For the project 'Studies of fossil and living plants with reference to the impact of climate change on flora of Gangetic Plains and Central India', five species of *Ludwigia* L. in India were palynologically described and their palaeopalynological relationships with fossil pollen 'copropolinitis', were drawn.

A total of 20 specimens were identified in connection with the project 'Identification of old unidentified specimens of BSA'.

Phenological stages (criteria-wise) of 149 plant species of the Associated Botanical Garden of CRC, Allahabad were recorded during June 2018.

Total 11 lichen loan specimens of LWG were authenticated by Dr. Pushpi Singh.

Miscellaneous service

Dr. Arti Garg and Dr. A.N. Shukla assisted the Head of Office in preparation of the detailed report on Ecosensitive zones (6 zones) of Uttar Pradesh, Madhya Pradesh and Chhattisgarh.

Sri Vineet Singh and Dr. Nitisha Srivastava compiled and submitted data on Flagship/Umbrella/Keystone/Indicator plant species of Uttar Pradesh.



Habenaria commelinifolia (Orchidaceae) at Patalkot in Madhya Pradesh

Interview for Parataxonomist Course Master Trainers under Green Skill development Programme (GSDP) was conducted on 22.06.18.



World Environment Day procession of leaning plastic near Prayag Railway Station, Allahabad



Saplings plantation in CRC garden during celebration of World Environment Day at CRC, BSI, Allahabad

World Environment Day 2018

World Environment Day was celebrated on 5th June at CRC with 70 participants from IAS aspiring students of Pant Hostel, University of Allahabad and from Department of Rural Technology, University of Allahabad. Picking of polythene from garbage in c. 2 sq. km area along road sides were done and certificates were distributed to all the participants.

Publications

Tiwari, A.P., Lawand, P.R., Shukla, A.N. and Magesh, C.R. 2018. Three new distributional records of Rubiaceae for Chhattisgarh. *Indian J. Forestry* 41(1): 31–33.

Tiwari, A.P., Shaikh, Mujaffar and Shukla, A.N. 2018. *Molineria jashpurica* sp. nov. (Hypoxidaceae) from Central India. *Nordic J. Bot.* DOI:10.1111/njb.01744.

Dubey, K., Dubey, K.P. and Shukla, A.N. 2018. *Adansonia digitata*, as Sacred Tourism. Sustainable Tourism. In: Pawan Kumar *et al.* (eds.), Biodiversity and Conservation of Kalp Vriksha, pp. 63–66. Uttar Pradesh Biodiversity Board.

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

DECCAN REGIONAL CENTRE, HYDERABAD

Dr. G. Swarnalatha, Bot. Asst. studied and identified 10 macro lichen specimens.

Public service rendered

Dr. J. Swamy, Bot. Asst. assisted Ms. Priyanka Giranje, JRF, Naoroji Godrej Centre of Plant Research (NGCPR), Shirwal, Satara, Maharashtra to collect live specimens of *Ledebouria hyderabadensis* in Rangareddy district on 15.06.2018.

Meeting/programme attended

Dr. L. Rasingam, Scientist 'D' & HoO and Dr. J. Swamy, Bot. Asst. received Sri C.K. Misra, Secretary, MOEF &CC at Tirupathi airport and later attended a meeting with Forest Department officials, Andhra Pradesh at Tirupathi in connection with the NDF Studies on Red sanders on 10.06.2018.



Participants receiving certificate during celebration of World Environment Day at DRC, BSI, Hyderabad



Celebration of International Yoga Day 2018 at DRC, BSI, Hyderabad

World Environment Day 2018

Scientists and staff of Deccan Regional Centre were participated in a week long World Environment Day celebrations from 29th May to 5th June 2018.

International Yoga Day 2018

Scientists and staff of Deccan Regional Centre were participated international Yoga Day celebration on 21.06.2018.

Publications

Rasingam, L. and Swamy, J. 2018. A new species of *Tripogon* (Poaceae: Chloridoideae: Tripogoninae) from Nallamala forests, Telangana, India. *Phytotaxa* 351(4): 296–300.

Rasingam, L., Swamy, J. and Sankara Rao, M. 2018. Clarke's Morning Glory *Ipomoea clarkei* Hook.f. (Convolvulaceae): addition to the flora of Eastern Ghats. J. Threatened Taxa 10(6): 11827–11829.

- **Dr. L. Rasingam** Scientist 'D' & HoO

EASTERN REGIONAL CENTRE, SHILLONG

During this period one field tour was conducted by Dr. N. Odyuo, Scientist 'D', combined tour to Nagaland for Floras of Eastern Nagaland by Dr. N. Odyuo and Dr. R. Daimary, Bot. Asst. and Flora of Nagaland (Vol. I & 2) by Dr. A.A. Mao, Scientist 'F' & HoO, Dr. N. Odyuo and Dr. D.K. Roy, Bot. Asst. from 19th May to 8th June, 2018.

For taxonomic revision of Genus *Riccia* (Marchantiophyta) in India by Dr. S.K. Singh, Scientist 'D' identified four samples of *Riccia* belonging to 3 species from Kerala send by M.C. Nair. Inking made of two species of *Riccia* namely *Riccia huebeneriana* and *Riccia personii*.

During this period identified 10 species and described 26 species for Flora of West & 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., Flora of Eastern Nagaland by Dr. N. Odyuo & Dr. R. Daimary and Flora of Nagaland (Vol. I & 2) by Dr. A.A. Mao, Dr. N. Odyuo and Dr. D.K. Roy.

For Micropropagation, Phytochemical Screening of Medicinal Plants and Molecular Characterization of Selected Species of NE India by Dr. Deepu Vijayan, Scientist 'C' transferred in vitro raised plants of *Pyrenaria khasiana* to green house for acclimatization (100 nos.). Collected and processed the rhizome samples of *Zingiber bipinianum*, *Zingiber kangleipakense* and *Zingiber rubens* for qualitative and quantitative phytochemical analysis. Extracted genomic DNA from *Pyrenaria chirapunjeana*, *Rhododendron johnstoneanum*, *R. formosum*, *sonerila squarrosa*, *S. maculata*, *osbeckia capitata*, *Bulbophyllum odoratissimum*, *Melastoma* sp. And the extracted DNA was quantified on 0.8% agarose gel and documented.

Following fungi were isolated from samples collected during field visit to Ukhrul, during May 2018 viz., Brachysporiella gayana, Cladorrhinum sp., Codinaea sp., Cordana triseptata, Dictyosporium sp., Haplographium sp., Helicomyces sp., Laterispora sp. (new species under consideration), Mariannea sp., Menisporopsis profusa, Phaeoisariella sp., Physalidiella elegans, Pleurothecium recurvatum, Rhexoacrodictys sp., Rhodotorula sp., Tetraploa sp., Zanclospora sp. by Dr. Ashish V. Prabhugaonkar, Scientist 'B'.

Observed and recorded phenological data of flowering and fruiting of 73 plant species viz., Aerides multiflora, A. odorata, Aesculus assamica, Allamanda cathartica, Alpinia malaccensis, Amomum pterocarpum, Arundinan graminifolia, Baccaurea ramiflora, Bixa orellana, Bulbophyllum affine, leopardinum, Callistemon citrinus, Carallia brachiata, Caryota urens, Caulokaempferia secunda, Citrus medica, Clerodendrum chinense, Coelogyne prolifera, C. punctulata, C. schultesii, C. stricta, Crepidium khasianum, Cymbidium aloifolium, C. devonianum, C. eburneum, C. lancıfolium, C. macrorhizon, Dendrobium fimbriatum, D. hookerianum, D. jenkinsii, D. moschatum, D. stuposum, Dienia ophrydis, Dillenia indica, Dracaena anqustifolia, Eria lasiopetala, Erythrina stricta, Erythrodes hirsuta, Esmeralda cathcartii, Eurya accuminata, Exbucklandia populnea, Ficus oligodon, Globba racemosa, Gloriosa superba, Gnetum gnemon, Hedychium longipedunculatum, Hoya lobbii, Hygrochilus parishii, Iris laevigata, Kaempferia parviflora, Liparis nervosa, Liparis plantaginea, Luisia teretifolia, Mahonia pycnophylla, Melastoma malabathricum, Micromelum integerrimum, Micropera rostrata, Mucuna macrocarpa, Nepenthes khasiana, Otochilus fuscus, Panisea uniflora, Papilionanthe teres, Phaius tancarvilleae, Pholidota articulata, P. convallariae, P. imbricata, Pothos chinensis, Sterculia hamiltonii, Rauvolfia serpentina, Renanthera imschootianalfe, Rhynchostylis retusa, Tacca integrifolia and Thunia alba which are available in the garden, Barapani by Dr. M. Murugesan, Scientist 'B' and Sri L.R. Meitei, Bot. Asst.

Public service rendered

Identified about 60 samples of specimens received from various institutions.

World Environment Day 2018

World Environment Day celebrated at ERC, BSI, Shillong on 05.06.2018. All the officials participated in cleaning plastic waste programme in office and BSI Residential campus.

Workshop/training attended

Dr. A.A. Mao attended one day workshop on Biodiversity of North east India as a resource person at Emanuel College, Dimapur, Nagaland on 08.06.2018 and delivered two lectures.

Dr. Dilip Kumar Roy, Dr. Ranjit Doimary, Dr. Satya Ranjan Talukdar, Laishram Ricky Meitei and L. Ibemhal Chanu, Bot. Assts. attending 2 week in-service training programme of Botanical Assistants from 22nd June to 5th July 2018 at Central National Herbarium, BSI, Howrah.

Visitors/students

Two teachers, six research scholars and four students various Institutions, Colleges and Universities visited the Centre.

Publication

Bhat, N.A., Jeri, L., Roy, D.K. and Kumar, Y. 2018. Petrosaviaceae, a new family record for India. *Bangladesh J. Plant Taxonomy* 25(1): 113–117.

- Dr. A.A. Mao Scientist 'F' & HoO

NORTHERN REGIONAL CENTRE, DEHRADUN

Described total 15 species of Angiosperms and Pteridophytes 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, Revision of Genus *Adiantum* L. in India.

Digitization of Herbarium specimens

Scanned and digitized 97 specimens of the family Rubiaceae and of Pteridophytes.



Scientists, research scholars and staff of NRC taking part in *Parthenium* removal on the day of World Environment Day



Distribution of indigenous plants by Dr. Kumar Ambrish to nearby peoples on the day of World Environment Day

World Environment Day 2018

Organized World Environment Day on 05.06.2018 in the office along with GSDP students of Parataxonomists course on the theme "Beat the plastic pollution" with various activities.

Function/meetings/workshops/training attended/organized

Dr. Prashant K. Pusalkar, Scientist 'D' coordinated one-day institutional visit cum training in plant collection and herbarium technique for 36 Forest Rangers (Maharashtra, Gujarat, Karnataka Batch) from Ranger's College, Haldwani, Uttarakhand on 12.06.2018.

Dr. Kumar Ambrish, Scientist 'D' & HoO Chaired as Guest of Honor in the Book release function of Wealth of Medicinal Plant resources and conservation on 14.06.2018 in Dehradun.

Dr. Kumar Ambrish and Dr. B.S Kholia, Scientist 'D', atttended meeting at Uttarakhand secretariat and coordinated with the ICAR-Indian Institute of Soil and Water Conservation (ICAR-IISWC) for International Yoga Day.

Dr. Kumar Ambrish and Dr. B. S Kholia attended half yearly meeting of TOLIC at Survey of India for the upliftment of official language.

Dr. Kumar Ambrish and Dr. G.S. Panwar, Scientist 'C' attended the video conferencing with Dr. Anandi Subramanian, Senior Economic Advisor, MoEF & CC regarding the GSDP course on Plant tissue culture & it's Application.

Dr. K.S. Dogra, Scientist 'C' attended the Punjab Biodiversity Board Meeting at Chandigarh on 24.06.2018 in connection with status of RET species in Punjab and about the fungal infection on the heritage Banayan tree (*Ficus benglensis*).

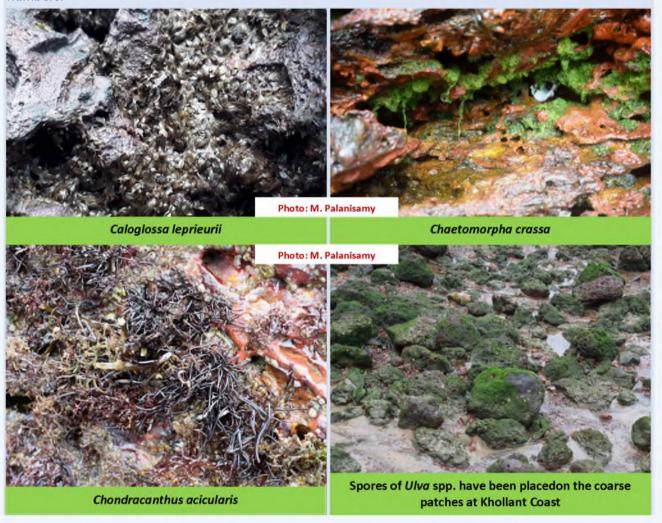
Publication

Dogra K.S., Kumar, A. and Jalal, J.S. 2018. *Habenaria plantaginea* Lindl. (Orchidaceae) – An addition to the flora of Chandigarh. *Indian J. Forestry* 41(1) 95-96.

Dr. Kumar Ambrish
 Scientist 'D' & HoO

SOUTHERN REGIONAL CENTRE, COIMBATORE

Dr. R. Manikandan, Scientist 'D' and Ms. R. Mehala Devi, Sr. Pres. Asst. undertook a botanical exploration to Cauvery North WLS, Tamil Nadu from 6th to 15th June 2018 and vouched 200 field numbers of plants. They also collected 5 live plants for *ex-situ* conservation and completed identification for specimens of 22 field numbers.





Dr. M. Palanisamy, Scientist 'D' undertook a botanical exploration to Goa coast from 19th to 26th June 2018 and vouched 83 field numbers of marine macro algae. Dr. Palanisamy and Dr. S.K. Yadav, Bot. Asst., completed identification for specimens of 26 field numbers of algal specimens and collected 8 references pertaining to the study area.

Identification of herbarium specimens

Dr. C. Murugan, Scientist 'D' and Dr. S. Arumugam, Bot. Asst. completed identification of 50 field numbers from Meghamalai WLS, Tamil Nadu. Dr. K.A.A. Kabeer, Scientist 'D' and Mr. A. Ravi Kiran, Bot. Asst. completed identification for 26 field numbers from Kodaikanal WLS, Tamil Nadu. Dr. J.H. Franklin Benjamin, Scientist 'C' and Sri Rakesh G. Vadhyar, Bot. Asst. completed identification for 35 field numbers from Kanniyakumari WLS, Tamil Nadu. In connection with documentation of Phytodiversity, Dr. C. Murugan and Dr. S. Arumugam, completed identification for 10 field numbers for Cyperaceae of Tamil Nadu.

Ex-situ conservation

Dr. S. Kaliamoorthy and Dr. M.Y. Kamble, Scientist 'D' and his team multiplied 62 samples belonging to 19 taxa, developed nine seedlings of four taxa, 51 cuttings of five taxa and transplanted two samples of *Cycas revoluta* and recorded the phenological data of 30 plants, including 19 orchids and 11 other angiosperms at the National Orchidarium and Experimental Gardens (NOEG), Yercaud.

Public service rendered

Identified 66 plant species for the students / research scholars of various institutions.

Ten digital images of Phyllanthaceae were provided to K. Raja Kullayiswamy, Indian Institute of Science, Bangalore. Incorporated isotype of *Euphorbia venkatarajui* and *Euphorbia belagaviensis* in Type section.

Two digital images of *Knoxia* sp. were sent to P. Lakshminarasimhan, Scientist 'E' & Head of Office, Western Regional Centre, Pune.

Three gift specimens of Orchids received from Sri M. Balachandar, Research Scholar, Bharathiar University were accessioned.

Meetings/conference/programme/training attended

An Interview was conducted for the selection of trainees to participate in the MoEF & CC, New Delhi sponsored Green Skill Development Program – Tissue Culture on 14.06.2018.

This centre observed the World Environmental Day and International Yoga Day on 05.06.2018 and 21.06.2018 respectively. All the officials of this centre actively involved in the program.

The first Quarterly meeting of the Official Language (Hindi) Implementation Committee was held in the office on 14.06.2018. On this occasion, various issues, pertaining to improvement of Hindi language in official works were discussed.

World Environmental Day 2018

This centre observed the World Environmental Day on 05.06.2018. All the officials of this centre actively involved in the programme.









Celebration of World Environment Day at SRC, BSI, Coimbatore on 05.06.2018

International Yoga Day 2018

This centre observed the International Yoga Day on 21.06.2018. All the officials of this centre actively involved in the program.

Visitors/students

During this month, 20 scientific personnel/officials/students/scholars visited the museum, herbarium and library of this regional centre whereas 152 persons in 49 parties visited the NOEG, Yercaud.

Publications

Kabeer, K.A.A, Sasikala, K. and Murugesan, M. 2018. An Overview of the Indian Grasses and Their Significance. *Eco-Chronicle* 12(2): 51–57.

Kaliamoorthy, S. and Saravanan, T.S. 2018. *Ledebouria hyderabadensis* M.V. Ramana, Prasanna & Venu (Hyacinthaceae): A new record for Tamil Nadu. *Indian J. Forestry* 41(1): 57–60.

Palanisamy M., Yadav, S.K. and Kabeer, K.A.A. 2018. Seaweed resources of India and its economic importance. *Eco Chronicle* 12(3): 83–91.

Singh, R.K. and Garg, A. 2018. Notes on the typification of *Ceropegia odorata* Nimmo ex J. Graham. *Indian J. Forestry* 41(1): 35–38.

Singh, R.K. and Garg, A. 2018. Taxonomy of the Indian Endemic Herb-Solanum purpureilineatum Sabnis & Bhatt (Solanaceae). *Indian For.* 144(4): 336–342.

- Dr. C. Murugan Scientist 'D' & HoO

WESTERN REGIONAL CENTRE, PUNE

Dr. A. Benniamin, Scientist 'D' submitted the report for the project, "Ferns of Karnataka".

Dr. C.R. Jadhav, Botanist identified specimens of 30 field numbers for the project, "Floristic survey of Someshwara Wildlife Sanctuary, Karnataka.

Dr. Priyanka Ingle, Scientist 'B' identified specimens of 12 field numbers for the project, "Floristic diversity of Wan Wildlife Sanctuary, Maharashtra".

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

Dr. Rashmi Dubey, Scientist 'D' identified 16 water samples for the project, "Taxonomic Studies of Micro fungi of Sanjay Gandhi National Park along with its 10% peripheral area".

Ms. Shreya Sengupta, Senior Project Fellow identified five micro fungi for the project, "Microfungi of Biligiri Rangaswamy Temple wildlife Sanctuary, Karnataka".

Public service rendered

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

Meeting/seminars/programmes attended

Collaborated and participated in organizing the Jeevidhata Festival 2018 and various environmental programs were organized from 3rd to 6th June 2018 on the occasion of World Environment Day. Various activities were conducted such as Plastic Collection Drive (at Mutha river bed and Taljai hill), Photo shooting competition and Exhibition on Biodiversity jointly with Maharashtra State Forest Department, Pune Municipal Corporation, Biospheres, Modern College and Samarth Bharat.

Green Skill Development Programme 2018

Conducted interview on 20.06.2018 for the selection of students under the GSDP course, "Parataxonomy including People's Biodiversity Register".

Conducted the interview on 22.06.2018 for selection of candidates under the GSDP course, "Community based conservation of Mangrove Ecosystem".

World Environment Day 2018

World Environment Day was observed at WRC, BSI, Pune on 05.06.2018. This year's theme was "Beat plastic pollution". An awareness lecture was delivered by Sri Chandrakant Gavhane, Professor, BJS College, Wagholi, on the topic 'Garbage to Energy'. Sri Gavhane has explained the method of operation of the 'CBG Garbage machine' invented by him, which under patent registration process. Sri Chandrakant Gavhane has planted *Adansonia madagascarensis* in the BSI campus to mark the occasion of World Environment Day 2018, which was gifted by Sri B.P. Engineer, Horticulturist to BSI. A poster competition was organised for the UG students on the theme plastic eradication. A total of nine posters were displayed by students from various colleges and was judged by Sri Chandrakant Gavhane. A quiz competition for UG students were organised during post lunch session. A total of 19 students from various colleges participated in the event. Eight students from Symbiosis International University, Pune has participated in essay writing competition. A total of 28 participants from outside BSI attended the event. In addition a plastic collection campaign was organised at BSI campus. During the event the usage of plastic materials were replaced with the following: plastic water bottles were replaced with glasses and water cans with earthen pots, bottles and *khullars*. Plastic dustbins were replaced with cane bins as well as the plastic bags used for collecting litter in the garden were replaced with gunny bags. Flex banner was replaced with Cloth banners.

International Yoga Day 2018

"International Yoga Day" was also observed at WRC, BSI, Pune on 21.06.2018.



Visitors/students

Sri Chandrakant Gavhane, BJS College, Wagholi visited the museum of WRC and also was a chief guest in the World Environment Day celebration on 05.06.2018.

Publications

Jalal, J.S. 2018. Orchids of Maharashtra. Botanical Survey of India, Kolkata.

Lakshminarasimhan, P., Bandyopadhyay, S. and Gupta, C. 2018. *Alchemilla purohitii*, a new name for *A. sojakii* K.M. Purohit & Panigrahi (Rosaceae). *Harvard Papers in Botany* 23 (1): 17–18.

World Env. Day celebrated befittingly by BSI Regional Centre

PORT BLAIR. JUNE 6/--/ The Botanical Survey of India, Andaman and Nicobar Regional Centre observed the World Environment Day on Tuesday on the theme "Beat Plastic Pollution". A function was organized at the main office Haddo. Dr. C. Sivaperuman, Officer-in-charge, Zoological Survey of India, Andaman and Nicobar Regional Centre, Port Blair addressed the gathering and encouraged the students to protect the biodiversity and environment of these islands from plastic pollution. He emphasized that the students and the gathering to minimize the use of plastics. He also stated that these Islands are being gifted with Coastal. Marine, Mangrove and Tropical Rain forest ecosystems and possesses a number of endemic species. He stressed that it is our duty to protect these ecosystems from various ill effects of plastic pollution which directly or indirectly harm the biodiversity, if failing we may lose a number of endemic species. Dr. Jagadeesh Ram T.A.M., Scientist-D & In-charge, Botanical Survey of India. Andaman and Nicobar Regional Centre, Port Blair welcomed the gathering and in the introductory speech he explained the significance of the day and the hazardous effects of plastics on land and water bodies and how it affects the life forms. He also highlighted the various activities undertaken by BSI towards the protection and preservation of flora of these Islands.

the various activities undertaken by BSI towards the protection and preservation of flora of these Islands. A drawing competition for school students was organized. Students form Government School Haddo, Carmel School, Sagaritara School, RGT School, GBMS School, etc. were participated in the competition. Officers and staffs members of the centre and local people were also participated and showed keen interest for conservation of Biodiversity. Dr. C.P. Vivek proposed vote of thanks and Mr Gautam Anuj Ekka moderated the programme.

द्वीप समाचार

176 पोर्ट क्लेयर, सोनवार वर जुलाई 2018 web www.and.nic

वनस्पति सर्वेक्षण में हिन्दी कार्यशाला

पोर्ट ब्लेयर, 1 जुलाई। भारतीय वनस्पति सर्वेक्षण, अण्डमान एवं निकोबार क्षेत्रीय केन्द्र, पोर्ट ब्लेयर के मुख्य कार्यालय में गत 28 एवं 29 जून, 2018 को



प्रथम त्रैमासिक दो दिवसीय हिन्दी कार्यशाला का आयोजन किया गया।

कार्यशाला का उद्घाटन करते हुए कार्यालयाध्य व उप निदेशक एवं वैज्ञानिक 'डी' डॉ. लाल जी सिंह, ने समस्त अधिकारियों व कर्मचारियों से हिन्दी का अधिकाधिक प्रयोग करने का आग्रह किया। विभाग के हिन्दी अधिकारी एवं वज्ञानिक 'बी' डॉ. संजय मिश्रा कार्यशाला के मुख्य वक्ता थे, जिन्होनें राजभाषा में सरकारी पत्र लेखन में कर्मचारीयों को प्रशिक्षित किया।

कार्यशाला का शुभारम्भ हिन्दी अनुवादक श्री प्रकाश होरों के स्वागत भाषण के साथ हुआ तथा परिरक्षण सहायक श्री गौतम अनुज एक्का ने धन्यवाद ज्ञापन किया।



Hon'ble Prime Minister Sri Narendra Modi releasing the Book 'Plant Discoveries 2017' on the occasion of World Environment Day 2018 at Vigyan Bhawan, New Delhi on 05.06.2018

Thanks to all the scientists and staff of regional centres and units of BSI for contributing to this Newsletter

© Botanical Survey of India Published by The Director, BSI, Kolkata Compiled and Edited by Dr. V. Sampath Kumar Scientist 'D', CNH, BSI, Howrah