

ए.ए. माओ
निदेशक
A. A. Mao
Director



सत्यमेव जयते

भारत सरकार
पर्यावरण वन एवं जलवायु परिवर्तन मंत्रालय
भारतीय वनस्पति सर्वेक्षण
GOVERNMENT OF INDIA
MINISTRY OF ENVIRONMENT, FOREST
& CLIMATE CHANGE
BOTANICAL SURVEY OF INDIA

DO. No.: BSI – 8/1/PA/2019 /1844

Date: 31.03.2023

Madam,

In reply to OM no. 24011/08/2019 – GC dtd. 25.03.2019 regarding monthly DO letter from Secretary (MoEF&CC) to the Cabinet Secretary, I am furnishing herewith the following major achievements of Botanical Survey of India for the month of **March, 2023**.

Department: Botanical Survey of India

1. Important policy decisions taken, major achievements during the month:

Scientists of BSI reported **(4) four** taxa as new to science viz. *Russula boddingii*, *R. pseudoflavida* and *Russula emend* from Sal dominated forests of tropical India and *Avrainvillea visakhapatnamensis*, from the coastline of Andhra Pradesh. They have also reported **one** taxon of Orchidaceae viz. *Nervilia* as a new addition to the flora of Arunachal Pradesh.

Scientists of BSI conducted **8** field / local tours and collected **402** field nos. of specimens. Towards digitization, BSI completed metadata of **3029** herbarium specimens. During this month, **4, 66, 578** visitors visited the official websites of BSI (**1,62,906** visitors referred BSI official website, **74,491** visitors referred BSI archives, and **2,29,181** visitors visited the Indian Virtual Herbarium).

Important events / programmes organized / attended:

1. Sri Bhupender Yadav, the Hon'ble Minister, Ministry of Environment, Forest & Climate Change inaugurated the **Flower Show** at the Botanic Garden of Indian Republic (BGIR), Noida on 28.02.2023. The flower show was open to the public until March 5, 2023.
2. BSI, Kolkata signed an MoU with **National Digital Library of India (NDLI)**, IIT Kharagpur on 7th March 2023, to promote reading, research, and the spirit of enquiry among the students and to promote literacy, reading and research among the underserved population of India, with a special focus on the girl child.
3. Under Mission LiFE program, BSI and all its regional centres organized 17 awareness programmes and exhibitions, in which more than 1326 people were sensitized.
4. BSI, APRC, Itanagar participated in the Research, Innovation, Initiative Gathering (#RIIG) on circular bio-economy at Itanagar on March 25, 2023 and showcased the achievements of BSI to #G20 countries delegates in the auspicious presence of Hon'ble CM Sri Pema Khandu.
5. BSI, CNH Howrah organized a webinar on 1st March 2023 on the Mission LIFE. Dr. Viveca Mellagard, Royal, Botanical Garden, Kew, UK and Mrs. Kanika Mukherjee, SURTA Kolkata jointly delivered a talk on '**Reviving natural dye in West Bengal and the scope of natural dye research in West Bengal**' and Dr Adrien RIEUX and Dr Olivier Pruvost, from Cirad (French Agricultural Research Centre for International Development), France delivered a talk on '**Improving our understanding of crop pathogen emergence and evolution using herbarium specimens**'.
6. BSI and all its regional centres celebrated World Wildlife Day 2023 on 3rd March 2023 with a slogan-writing competition on the theme "Partnerships for Wildlife Conservation in online mode."
7. BSI, CNH Howrah and BSI, CBL Howrah jointly participated in Acharya Prafulla Chandra Roy Smarak **Vigyan Mela O Pradarshani**, at Belgachia Kolkata held from 16th – 18th March, 2023
8. BSI, AZRC, Jodhpur participated and won the third prize in the '**VRIKSHA UTPADAK MELA**', organized by Arid Forest Research Institute, Jodhpur on 17th March 2023. BSI publications, Museum artifacts were exhibited in the event and provided information to visitors about plant resources of the Arid and semi arid areas.
9. BSI and all its regional centres observed **World Taxonomist Appreciation Day** on 19th March 2023 to express the gratitude to all taxonomists for their dedication to revealing the secrets of numerous species on earth.
10. Dr. Umeshkumar L. Tiwari, Scientist D and Dr. Sudhir Kr. Yadav, Botanist of BSI, HQ, Kolkata conducted a **Green Audit** at Behrampore College, Murshidabad, W.B. under the Mission LiFE campaign on March 17, 2023 and highlighted the need to nudge individuals' actions and undertake simple acts in their daily lives to address climate change.

During this month **13** research publications consisting of 8 research publications, 2 books and 3 book chapters have been published by BSI scientists in various International and National research journals (*Annexure 1*).

2. **Important policy matter held up on account of prolonged inter-ministerial consultations: NIL**
3. **No. of cases of 'Sanction for prosecution' pending for more than 3 months: NIL**
4. **Particulars of cases in which there has been a departure from the Transaction of Business Rules or established policy of the government: NIL**
5. **Status of ongoing Swachhta Abhiyaan (Progress under Special Campaign):** Under outreach activities, regular cleaning drives and public awareness campaigns are organized in BSI.
6. **Status of Rationalization of Autonomous Bodies: NIL**
7. **Information on the specific steps taken for utilization of the space technology based tools and applications in governance and development: NIL**
8. **Vacancy position of senior level appointments in the Ministry/ Department, including Autonomous Bodies/ PSUs:** Communicated in the Ministry separately.
9. **List of cases in which ACC directions have not been complied with: NIL**

With regards,

Sincerely yours,

A. A. MAO 31/03/2023

To

Ms. Nameeta Prasad, JS, (CS-II), MoEF&CC, New Delhi – 3



सी.जी.ओ कॉम्प्लेक्स, तृतीय एम.एम.ओ भवन, ब्लॉक-एक (पाँचवा तल), डी एफ ब्लॉक, सेक्टर 1, साल्ट लेक सिटी, कोलकाता-700 064 फोन : 033-23344963

CGO Complex, 3rd MSO Building, Block F (5th Floor) DF Block, Sector 1, Salt Lake City, Kolkata -700064 Phone : 033-23344963
E-mail : aamao2008@gmail.com

List of Publications for March, 2023**Research Papers published: 8**

1. ARON SANTHOSH KUMAR Y., PALANISAMY M. AND S.VIVEK 2023. Systematic account of the genus *Avrainvillea* Decne. and a novelty from Indian coastline. *Regional Studies in Marine Science* 60: 102868.
2. BASU P., G.G. SATPATI, SEVILAY ÖZTÜRK AND R.K. GUPTA 2023. Taxonomic and Ecological Aspects of Thermophilic Cyanobacteria from some Geothermal Springs of Jharkhand and Bihar, India. *Egypt. J. Bot.* 63(1): 315–331.
3. DATTA, S., M. BHAUMIK AND K. PAGAG-2022. The Wood Collection of Industrial Section Indian Museum (ISIM), BSI, Kolkata. *International Journal of Bioresource Science* 9 (02): 75-78.
4. GHOSH A., BUYCK B., CHAKRABORTY D., HEMBROM M. E., BERA I. AND DAS K. 2023. — Three new species of genus *Russula* Pers. from Sal dominated forests of tropical India based on morphotaxonomy and multigene phylogenetic analysis. *Cryptogamie, Mycologie* 44 (3): 27-50.
5. JALANDER, V., SWAMY, J., SRINIVAS, D. AND RAMANA, P.V., 2022. A note on the extended distribution of *Arthraxon santapaui* (Poaceae: Andropogoneae) in Telangana, India. *Indian Journal of Forestry*, 45(2):92-94.
6. KHYANJEET GOGOI, KRISHNA CHOWLU AND JEEWAN SINGH JALAL. 2022. The genus *Nervilia* (Orchidaceae) in Arunachal Pradesh (India) with a new addition for the flora of this state. *Rhichardiana*. 7 (3): 78-102.
7. YADAV, S.K. 2022. Seaweeds: Are these weeds or resources? 9 (2): 39-45, 2022. *International Journal of Bioresource Science* 9 (2): 69-73.
8. YADAV, S.K. 2022. Diversity and Distribution of Seaweeds in the West Bengal Coast, India. *International Journal of Bioresource Science* 9 (2): 129-138.

Books: 2

1. AGRAWALA, D.K., R. GOGOI, S.S. DASH, J.S. JALAL, G. KRISHNA, A. KUMAR, N. ODYUO, H.N. SHARMA, P.K. BHARDWAJ, L. HEPUNI, A. KAR. B.B.T. THAM, L.R. MEIREI in A.A. MAO & P.K. MUKHARJEE (eds.) FLORA OF MANIPUR- A PICTORIAL GUIDE 2023. Botanical Survey of India, Kolkata & Institute of Bio- resources & Sustainable Development, Imphal. ISBN: 978-81-958726-7-1. 638 pp.
2. HARIKRISHNA, P., ARIGELA R.K., AND REDDY, C.S. 2022. Floristic Diversity and Landscape of Aravallis, Rajasthan (India). Scientific Publishers, Jodhpur. ISBN: 978-81-960879-3-7.

Book Chapters: 3

1. K. KARTHIGEYAN 2022. Diversity and Conservation of mangroves in Sundarban Biosphere Reserve, India. In: Skand Kumar Mishra (ed.), Biosphere Reserves Botanic Gardens, Zoological Parks, Museums, Biodiversity of India- Identification, Conservation & Management (vol. 1), Govt. M.S. Golwalkar College, Rewa, M.P. India ISBN: 978-81-928063-9-6. Pp. 24 – 26.
2. PRASAD, R. AND MEENA, K.L. 2023. Need of special conservation efforts for the Critically Endangered species *Commiphora wightii* (Arn.) Bhandari in Sariska Tiger Reserve, Rajasthan (India) In: Mishra, P.C., Das, M.T. and Hansdash, S. (Edition) Abstract Book of International Conference on Emerging Technology for Environmental Sustainability (Etes-2023). Dept. of Environmental Science, Fakir Mohan University, Balasore, Odisha. Pp. 82.
3. PANDA, S.P., R. SARAVANAN, R. PRASAD AND M.E. HEMBROM. 2023. The Prestine Ecosystem of Mangroves of Bhitarkanika Wildlife Sanctuary of Odisha, India In: Mishra, P.C., Das, M.T. and Hansdash, S. (Edition) Abstract Book of International Conference on Emerging Technology for Environmental Sustainability (Etes-2023). Dept. of Environmental Science, Fakir Mohan University, Balasore, Odisha. Pp. 80-81.