



सत्यमेव जयते
भारत सरकार

Government of India

पर्यावरण, वन और जलवायु परिवर्तन मंत्रालय
Ministry of Environment, Forest & Climate Change
भारतीय वनस्पति सर्वेक्षण / Botanical Survey of India



भारतीय वनस्पति सर्वेक्षण
BOTANICAL SURVEY OF INDIA

DO. No.: BSI - 8/1/PA/2019/1218

Date: 30.12.2022

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 **December 2022**.

Department: Botanical Survey of India

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

Scientists of BSI reported **three taxa as new to science viz. *Schoenorchis mishmensis*** (Orchidaceae) from Mishmi Hills, Arunachal Pradesh; *Gastrochilus pseudocalceolaris* (Orchidaceae) from Mt. Yingyushang, Nagaland and *Ardisia anamalaiana* (Primulaceae) from the Western Ghats, India. Besides, they have also reported **four taxa as new records to various flora viz *Russula indosenecis* and *R. pseudosenecis*** as new records to Asia; *Neanotis tubulosa* (Rubiaceae) to the flora of Andhra Pradesh and *Strophanthus caudatus* to the flora of Odisha.

In addition, BSI scientists conducted 8 field/ local tours and collected around 709 field nos. of specimens. Towards digitization, BSI completed metadata of **5524** herbarium specimens. During the month, **399060** visitors visited the official websites of BSI. (166713 visitors referred BSI official website, 129914 visitors referred BSI archives, and 102433 visitors visited the Indian Virtual Herbarium)

Important events / programmes organized / attended:

1. Under the **Mission LiFE** campaign of the Government of India, BSI organized a sensitization programme and mass rally on 10th December 2022 at the AJCB - Indian Botanic Garden, Howrah and all its regional centres.
2. Botanical Survey of India, APRC, Itanagar, in collaboration with G.B. Plant National Research Institute of Himalayan Environment and Sustainable Development & ZSI, Itanagar organized **International Mountain Day** programme on 11th December, 2022.
3. BSI, ISIM, Kolkata celebrated **World Soil Day** on 5th December 2022, and **National Pollution Prevention Day** 12th December, 2022 by organizing Gallery visit, popular talk, documentary film show and extempore speech competition with College students. The Museum also participated in the "**Damodar Mela**" from 7th -13th December at Amta Howrah, wherein the activities of BSI and importance of biodiversity, environment and plants were disseminated to the villagers.
4. BSI declared the result of **33 Junior Research fellows**, by conducting written test exam on 4th December at all its regional centres and subsequent interview on 19th & 20th December, 2022 by the expert committee.
5. Under the **DST-SERB funded scheme**, BSI organized a **SERB High End Workshop on "Plant Identification to Biodiversity Assessment (*Karyashala*)"** at BSI-Central National Herbarium, Howrah from 12th-18th December, 2022. Under this workshop, **25 young researchers** were selected from all over the country and a series of lecture and *Hands on Trainings* were organized by the Eminent Scientists and Professors to train and develop the skills of plant identification, biodiversity conservation, herbarium methodology etc. Besides, another **DST-SERB funded "SERB Vritika Research internship workshop is going on from 6th December 2022 to 3rd January 2023** at BSI-Central National Herbarium, Howrah, with an aim to provide a short term training programme on Plant Taxonomy and Threat Assessment of plants to **5 selected interns**.

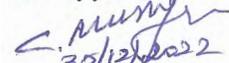
Important scientific publications:

During this month **12** research publications 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,

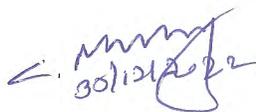

30/12/2022
C. Murugan
Director (I/C)

To

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

List of Publications for December, 2022**Research Papers published: 12**

1. GHOSH A., B. BUYCK, K. DAS, I. BERA AND D. CHAKRABORTY 2022. Two new Asian species of *Russula* sect. *Ingratae* with unique basidiospore features for subg. *Heterophyllidiae*. *European J. Taxonomy* 847: 104-12
2. GOGOI, K., PRANAB MEGA AND KRISHNA CHOWLU. 2022. *Schoenorchis mishmensis* sp. nov. (Orchidaceae) from Mishmi Hills, Lower Dibang Valley district, Arunachal Pradesh. *Phytotaxa*. 575 (1): 97-103.
3. DEY, S, L. PHOM, A. BHATTACHARJEE, MOAAKUM AND K. ESHUO 2022. *Gastrochilus pseudocalceolaris*, a new species of epiphytic orchid from India. *Phytotaxa* 574 (4): 295–300.
4. KUMAR, S. AND P. GUPTA 2022. Impact of over cultivation of Makhana, *Euryale ferox* Salisb. *International J. Biological Innovations*, 4(2): 313-321. E-ISSN: 2582-1032, <https://doi.org/10.46505/IJBI.2022.4208>.
5. KUMAR, S., AND PRATIBHA GUPTA 2022. Wetlands of Maldah District, West Bengal (India). *International J. Biological Innovations* 4(2): 385 – 395.
6. MAHESH, Y., L. RASINGAM AND M.V. RAMANA 2022. *Neanotis tubulosa* (G.Don) Mabb. (Rubiaceae) – A new Distributional Record for Andhra Pradesh, India, *Indian Forester* 148(11): 1160-1161.
7. MISHRA, A. P., A. SRIVASTAVA, A. BHANDARI, P. KUMAR, G. S. PANWAR AND A.A. MAO 2022. Site suitability analysis for the critically endangered *Aconitum heterophyllum* in Alpine regions of Uttarakhand using Analytic Hierarchy Process. *Indian Forester*, 148(12): 1215-1222. DOI: 10.36808/if/2022/v148i12/163188
8. RAVICHANDRAN, V., MURUGESAN MARUTHAKKUTTI AND SELVA SINGH RICHARD PAULRAJ 2022. *Ardisia anamalaiana* (Primulaceae), a new species from southern Western Ghats, India. *Nordic J. of Botany*.doi: 10.1111/njb.03646. Published 8 December 2022. 2022: e03646
9. SENGUPTA, S., A. NIPUN, S. SABITA, J. DUTTA, M. ULAGANATHAN, , K. KARTHIGEYAN, P. MUKHERJEE, , P. JAISANKAR, AND MA. BANDYOPADHYAY 2022. Standardised *Sonneratia apetala* Buch.-Ham. fruit extract inhibits human neutrophil elastase and attenuates elastase-induced lung injury in mice. *Frontiers in Pharmacology* 13:1011216 DOI: 10.3389/fphar.2022.1011216.
10. SINGH R.K., R.K. ARIGELA AND K.A. SUJANA 2022. *Strophanthus caudatus* (L.) Kurz, a new record for the flora of Odisha state. *Indian Forester* 148(9):953-954.
11. STEN, L. AND D. VIJAYAN 2022. Phytochemical Screening, Antioxidant Activity and UHPLC Fingerprinting of Methanolic Extract of the Fruits of *Quercus semiserrata* Roxb. *Asian J. Res. Botany*. 8(2):10-20
12. TYAGI, V.C., J. SWAMY, N. DIKSHIT AND A.K. ROY 2022. Digital Herbarium of range Grasses and Legumes. *Forage Res.* 48(2): 146-151.


 30/12/2022