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निदेशक
A. A. Mao
Director



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 / 489

Date: 01.04.2024

Madam,

In reply to OM no. 24011/08/2019–GC dated. 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, 2024**.

Department: Botanical Survey of India

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

Scientists of BSI reported *Boesenbergia ashioi* Suparna Debnath *et.al.* (Zingiberaceae), a new species from Northeast India; *Impatiens brahmagiriana* T.S. Saravanan & S. Kaliyamoorthy (Balsaminaceae): A new species from the southern Western Ghats of India; *Styopodium* Kütz. (Algae) - A new generic record for India from the Bay of Bengal; one new species of Boletoid fungi from India, including many new records and solved many nomenclatural problems for the Flora of India.

Scientists of BSI conducted 11 field / local tours 6 Herbarium consultation tour and collected 815 field nos. of specimens. BSI prepared metadata of **10729** herbarium specimens. During this month, **283,030** visitors visited the official websites of BSI (1,16,543 visitors referred official website, 76,193 visitors referred archives, and 90,294 visitors visited Indian Virtual Herbarium).

Important events / programs organized / attended:

- All the offices of Botanical Survey of India celebrated the International Women's Day on March 8, 2024, to acknowledge the achievements, strength, and resilience of women in this institution.
- Two days' Workshop on 'Plants Identification and Herbarium Methodology (Flowering and Non-flowering Plants)' was jointly organized by the EIACP Programme Centre, BSI and Central National Herbarium, Howrah, on March 9–10, 2024, at CNH Auditorium, Howrah. In this workshop, Dr. A.A. Mao, Director, BSI, inaugurated the newly renovated EIACP PC RP centre on March 9, 2024. Two new pamphlets, viz., 'Medicinal Plant Diversity in Arunachal Pradesh' and 'The Lantern Flowers of India: Genus *Ceropegia* L.' were also released by the Director, BSI.
- International Conference organized by The Orchid Society of India (TOSI) along with Botanical Survey of India and CSIR-National Chemical Laboratory at CSIR-NCL from 15th to 17th March, 2024.
- The Botanical Survey of India, Arunachal Pradesh Regional Centre, Itanagar, organized a two-day workshop titled "Taxonomy and Ecology of Floral Elements of the Eastern Himalayan Region and Hands-on Training on Systematics of different plant groups." on 19th & 20th March, 2024 with participation of various esteemed institutions across Itanagar, including Rajiv Gandhi University, Dera Natung Government College, the National Institute of Technology Arunachal Pradesh, GB Pant National Institute of Himalayan Environment, North Eastern Regional Centre etc.
- Director, BSI and Dr. Sandeep Chauhan, Scientist 'F' made exposure tour to Singapore Botanical Garden to take new ideas and knowledge on scientific and engineering aspects of Singapore Botanic Garden *w.e.f.*, 19th to 23rd March, 2024 for the upcoming BGIR Garden.
- Director, BSI delivered presidential lecture and chaired Inaugural session in the International Conference cum workshop on Resource Development of Medicinal & Floricultural Orchids- Lab Techniques to Entrepreneurial Venture and Orchid show during 15th March, 2024 to 17th March, 2024 at CSIR in collaboration with BSI & NCL, Pune.
- Director, BSI attended as a Chief Guest in Technical session orientation programme on People Biodiversity Register (PBR) during 9th March, 2024 to 11th March, 2024 at 8th Northeast Green Summit at Arunachal Pradesh Legislative Assembly, Itanagar.
- Botanical Survey of India, High Altitude Western Himalayan Regional Centre (HAWHRC) has celebrated the International Day of Forests on March 21, 2024. Forests, known as Earth's lungs, are vital for a balanced environment.

During this month **20** research papers and **1** book got published by BSI scientists in International and National publications apart from participating in scientific lectures and publishing seminar abstracts. (**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: -NA-**

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 to the Ministry separately.

9. **List of cases in which ACC directions have not been complied with: NIL**

With regards,

Sincerely yours,


A. A. MAO 01/04/2024

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



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PUBLICATION OF MARCH, 2024

1. ABHILASH PRADHAN, DINESH THAKUR AND KUMAR AMBRISH. 2024. An endangered wild kiwifruit *Actinidia callosa* var. *strigillosa* C.F. Liang (Actinidiaceae) from India. *Current Science*. Vol. 126 (5):539-541.
2. ARON SANTHOSH KUMAR. Y., M. PALANISAMY AND VIVEK.S. 2024. *Styopodium* Kütz. - A new generic record for India from the Bay of Bengal. *Journal of Threatened Taxa* 16(3):24916–24922.
3. ASHAJYOTHI, M., S. MAHADEVAKUMAR, Y. N. VENKATESH, P.V.S.R.N. SARMA, C. DANTESWARI, A. BALAMURUGAN, G. PRAKASH, V. KHANDELWAL, C. TARASATYAVATHI, A. R. PODILE, IM. S. KIRANKUMAR AND S. CHANDRANAYAKA. 2024. Comprehensive genomic analysis of *Bacillus subtilis* and *Bacillus paralicheniformis* associated with the pearl millet panicle reveals their antimicrobial potential against important plant pathogens. *BMC Plant Biology*, 24:197. <https://doi.org/10.1186/s12870-024-04881-4>
4. BARMAN, R. D., SAHA, T., SINGH, D., SWAMY, J., SARKAR, G., & MASTAKAR, V. K. 2024. Canopy Management of the Great Banyan Tree in Acharya Jagadish Chandra Bose Indian Botanic Garden, Howrah, India. *Journal of Experimental Agriculture International*, 46(5), 26–33. <https://doi.org/10.9734/jeai/2024/v46i52352>.
5. DAS, K., S. DATTA, U. SINGH, A. GHOSH AND D. CHAKRABORTY. 2023. Multigene molecular phylogeny and morphological evidence reveal one new species and three new records of Boletoid fungi from India. *Nelumbo* 65(2): (01–18) 2023.
6. DEBNATH, S AND D. VIJAYAN. 2024. Diversity, phytogeographical distribution, endemism and conservation status of Zingiberaceae in India. *Plant Science Today*. <https://doi.org/10.14719/pst.2708>
7. DEBNATH, S., S. PATIL AND D. VIJAYAN. 2024. *Boesenbergia ashihoi* (Zingiberaceae), a new species from northeast India. *Nordic Journal of Botany*. e04319. doi: 10.1111/njb.04319
8. DEROLIYA, P.K., P. KUMAR, S.K. SINGH AND P. GHOSH. Additions to the Flora of Rajaji National Park, Uttarakhand (INDIA). *Indian Forester* 150 (2): 164-171. DOI: 10.36808/if/2024/v150i2/169937.
9. DEVI R.S., S. KUMAR AND R.K. SINGH. 2024. Lectotypification of three names in *Aeschynomene* (Fabaceae), a new species from Odisha, India and a new combination in *Ctenodon*. *J. biodivers. conserv.* 8(1): 49–62.
10. DOGRA K. S., K. AMBRISH AND B. MEENA. 2023. Note on the distribution of *Senna septemtrionalis* (Fabaceae) in Himachal Pradesh, India. *Journal of Non-Timber Forest Products*, 30(1), pp.32-34. <https://doi.org/10.54207/bsmps2000-2023-9O5M9B>
11. DUTTA, SUCHANDRA RANJIT, HENSAL SALVADOR RODRIGUES, PRAMODACHANDRA PRAFUL HARVEY, KIRAN GANGADHAR CHAKRAL, PRIYANKA INGLE AND RAKHEE DANGI. 2024. Sympatric speciation in *Dipcadisaxorum* at Kanheri Caves, Borivali, Maharashtra India. *Phytotaxa*, 637(1): 087-096.
12. GUPTA, PRATIBHA (2024). New Records of Cyanoprokaryotes and Algae from India on *Ficus bengalensis* L. (Great Banyan Tree) in Acharya Jagadish Chandra Bose Indian Botanic Garden, Howrah, West Bengal, India. *Tropical Plant Research* 11(1): 1 - 8.

13. KOTTAIMUTHU, R., Y. MAHESH AND HAREKRISHNA SWAIN, 2024. A new name replaces illegitimate *Gentianella grandis* (Adams) Glenny (Gentianaceae). *Phytotaxa* 640(1): 71–72.
14. MAHADEVAKUMAR, S., Y. N. VENKATESH, P.V.S.R.N. SARMA, C. DANTESWARI, J. JOY, S. CHANDRANAYAKA, AND T.S.S.K. PATRO 2024. Molecular detection of Candidatus phytoplasma aurantifolia associated with virescence and phyllody of *Zinnia peruviana* – a new record for India. *Journal of Phytopathology* 172(2): e13284. <https://doi.org/10.1111/jph.13284>
15. SARAVANAN, T. S. AND S. KALIAMOORTHY (2024). *Impatiens brahmagiriana* (Balsaminaceae): A new species from the southern Western Ghats of India. *Taiwania*. 69(1):99–103. DOI: 10.6165/tai.2024.69.99.
16. SEAL, TAPAN, BASUNDHARA PILLAI AND KAUSIK CHAUDHURI. 2024. Effect of cooking methods on total phenolics and antioxidant activity of selected wild edible plants. *Research Journal of Pharmacognosy and Phytochemistry*, 16(1):9-6. doi: 10.52711/0975-4385.2024.00003.
17. SINGH R.K. 2024. Nomenclatural and taxonomic notes on *Eugenia* (Myrtaceae) from India. *Phytotaxa* 638(3): 268–276.
18. SINGH R.K. AND S. KUMAR. 2024. *Phoenix lallani* R. Kr. Singh, a replacement name for *Phoenix andamanensis* S. Barrow (Arecaceae). *J. Biodivers. Conserv.* 8(1): 91–93.
19. SINGH R.K. AND S.KUMAR. 2024. Nomenclatural novelties in *Combretum* (Combretaceae) from Madagascar. *J. Biodivers. Conserv.* 8(1): 83–90.
20. SINGH, R.K., P.K. DEROLIYA AND S. KUMAR. 2024. Lectotypifications and two replacement names in *Pilea* (Urticaceae). *J. Biodivers. Conserv.* 8(1): 63-74.

BOOKS PUBLISHED:

1. BHATTACHARJEE, A., R. LAYOLA M.R, S. SARDAR, T. SHIL, F. BANU, S. BANDYOPADHYAY, B. MALLICK, O. CHAKRABORTY, R. SHAW, S. SENGUPTA, S. CHAKRABORTY, S. CHAKRABORTY, P.S. KUSHWAHA, T. SEAL AND A. A. MAO. 2024. Non-detriment Findings (NDFs) of *Aquilaria malaccensis* Lam. (Agarwood) in India. Botanical Survey of India, Kolkata. [ISBN: 978-81-965332-3-6]