

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 / 655

Date: 03.08.23

Madam,

In reply to OM no. 24011/08/2019 – GC dt. 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 July, 2023.

Department: Botanical Survey of India

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

Scientists of BSI described new species of *Impatiens karuppusamyi* P.S.S. Richard & V. Ravichandran (Balsaminaceae), *Xerocomellus himalayanus* D. Chakr & A. Ghosh (Boletaceae), *Asystasia venui* A Kumar *et al.* (Justiciaceae: Acanthaceae); new records to India viz. *Asplenium austrochinense* Ching (Aspleniaceae); *Cyanoboletus macroporus* Sarwar, Naseer & Khalid (Boletaceae); *Actinidia callosavar. strigillosa* C. F. Liang in K. M. Feng; *Acanthoheliospora scopula* (Peck) Rossman & W.C. Allen, in Rossman, Allen & Castlebury (Tubeufiaceae); *Acrogenospora ellipsoidea* D.M. Hu, L. Cai & K.D. Hyde, (Acrogenosporaceae); *Angustimassarina acerina* Jayasiri, Thambug.R.K. Schumacher & K.D. Hyde, (Amorosiaceae). New additions viz. *Huperzia herteriana* (Kümmerle) T. Sen & U. Sen (Lycopodiaceae) to Mizoram and *Cymbidium lancifolium* Hook (Orchidaceae) to Western Himalaya.

Scientists of BSI conducted 12 field / local tours and 2 Herbarium Consultation Tours and collected 133 field nos. of specimens. Towards digitization, BSI completed metadata of 5208 herbarium specimens. During this month, 407960 visitors visited the official websites of BSI.

1. Important events / programmes organized / attended:

1. Plant Discoveries 2022 was released by Hon'ble Minister MoEFCC Shri Bhupendra Yadav, Hon'ble Minister of State, Shri Ashwini Choubey and Shri C.P. Goyal, DG Forest & Special Secretary Ministry of Environment, Forest & Climate Change, Government of India during the inaugural session of 108th Foundation Day of Zoological Survey of India at Kolkata on 1st July 2023.
2. Shri Pravir Pandey, IA&AS, Finance Advisor, Ministry of Environment, Forest & Climate Change, visited AJC Bose Indian Botanic Garden and Central National Herbarium Howrah on 1st July 2023. Dr. A. A. Mao, Director, Botanical Survey of India briefed him on the various activities of BSI.
3. Mr. John Jackson, Head of Science Policy and Communication, Natural History Museum, London has visited the AJC Bose Indian Botanic Garden and Central National Herbarium, Botanical Survey of India, Howrah, on 4th July, 2023 and delivered a talk on "Global Challenges: Where do we go next?".
4. Prof. Lars Chatrou, University of Ghent, Belgium and Dr. Ana Rita Simões, Royal Botanic Gardens, Kew, England visited Botanical Survey of India on 10th July, 2023 and delivered talk on "Molecular Techniques for Plant Taxonomy including Molecular Markers and DNA Extraction" at Central National Herbarium.
5. Botanical Survey of India celebrated "Van Mahotsav" on 14th July, 2023 followed by a plantation drive and introduced 500 saplings of endemic and threatened plants. On this occasion a booklet on the AJC Bose Indian Botanic Garden was released by the Director, BSI.
6. BSI organized Heads of office meetings on 29th July, 2023 at ERC, Shillong. The Director, BSI and the Heads of the Office from all the regional centers and Section In-charges attended this meeting for reviewing the annual programme of research activities.

During this month 23 research papers have been published by BSI scientists in various International and National research journals. Besides 9 book chapters have been published. (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: The proposal have already communicated in the Ministry separately.
9. List of cases in which ACC directions have not been complied with: NIL

With regards,

Sincerely yours,

07/08/2023
A. A. MAO

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 July, 2023

Research Papers: 23

1. ANUSUBA, V, M. MURUGESAN, M. U. SHARIEF, B. KARTHIK AND R. THARANI. 2023. A Checklist of the Orchids in Nilgiri Biosphere Reserve, India in Biological Forum – An International Journal 15(5): 1274–1292. 2023
2. ARIGELA, R.K., R. KUMAR, P.K. DEROLIYA, M.K. VITTAPU, T. KATHULA AND R.K. SINGH. 2023. Avifauna and its interactions with the plants at Botanical Survey of India, Arid Zone Regional Centre, Jodhpur, Rajasthan, India: Avifauna and its interactions with the plants at BSI, AZRC, Jodhpur, Rajasthan, India. Annales Universitatis Paedagogicae Cracoviensis Studia Naturae 8: 1–29.
3. CHORGHE ALOK R., SUMAN HALDER & R.N. KULLOLI. 2023. Taxonomy, Typification and distribution of *Thyrsiazea* (Poaceae). *Phytotaxa* 603 (1): 089–094.
4. DAS, K.; A. GHOSH, D. CHAKRABORTY, S. DATTA, I. BERA, R. LAYOLA MR, F. BANU, A. VIZZINI, K. WISITRASSAMEEWONG. 2023. Four Novel Species and Two New Records of Boletes from India. *Journal of Fungi* 9, 754. <https://doi.org/10.3390/jof9070754>
5. DUBEY RASHMI AND AMIT DIWAKAR PANDEY. 2023. New records of litter fungi from Sanjay Gandhi National Park (SGNP), Maharashtra, India. *J. Mycopathol. Res.* 61(2): 227–229.
6. GNANASEKARAN, G., A.F.J. KING, S.M. KASIM, AND W. ARISDASON. Taxonomy of *Lepidagathis hamiltoniana* (Barleriaceae: Acanthaceae), an endemic species of India in *Rheedea* 33(2): 74–82.
7. HARI KRISHNA, P AND R. KUMAR, 2023. Angiosperm diversity of Bassi Wildlife Sanctuary, Chittorgarh District, Rajasthan, India, *Indian Forester*, 149(4): 422–434. DOI: 10.36808/if/2023/v149i4/165480.
8. JALANDER, V AND J. SWAMY 2023. *Tripogon borii* (Poaceae: Chloridoideae)- A new distributional record from Telangana, India. *Bioinfolet* 20 (2, A): 177–179.
9. KOTTAIMUTHU, R. 2023. A new combination in *Ocotea* Aubl. and note on the nomenclatural status of recently proposed two new names in Lauraceae. *Phytotaxa* 600(1): 52–54.
10. KUMAR, A., G. KRISHNA, AND A. BHATTACHARJEE. 2023. *Asystasia venui* (Justicieae: Acanthaceae): A new species from West Bengal, India. *Phytotaxa* 600 (4): 239–247. [IF: 1.050]
11. M. PREMKUMAR, AND R. MANIKANDAN. 2022. *Euryops chrysanthemoides* (Asteraceae), naturalized in Tamil Nadu, India. *Journal of Non-Timber Forest Products*, 29(4), pp.171–173. <https://doi.org/10.54207/bsmps2000-2023-GBV2HB>
12. M. SINGH., S. K. SINGH., J. P. JOSHI., H. NEGI., R. P. JOSHI. 2023. *Cymbidium lancifolium* Hook. (Orchidaceae): New discovery from the Western Himalaya. *Indian Forester*. 149(5): 578–580.
13. MIR, A. H., R. BORAH, N. V. KHARBULI, K. U. LASUSHE, C. DEORI, G. CHAUDHURY, K. UPADHAYA AND H. CHOUDHURY. 2023. Orchid Diversity in Community Managed Subtropical Forests in Khasi Hills of Meghalaya, Northeast India. *J. Pl. Sc. Res.* 39(1): 163–175.
14. MONDAL, S, CHAKRABORTY, K., CHAKRABORTY, S., SARKAR, S., SARDAR, S. AND A. BHATTACHARJEE. 2023. *Geodorum laxiflorum* (Orchidaceae) relectotypified. *Nordic J. Bot.* 2023: e03908. doi: 10.1111/njb.03908 [IF: 0.931]
15. RICHARD, P.S.S. AND V. RAVICHANDRAN 2023. *Impatiens karuppusamyi* (Balsaminaceae), a New Species from the Southern Western Ghats, India. *Annales Botanici Fennici* 60(1):131–135. DOI: 10.5735/085.060.0121.
16. SONI, ASHISH K. AND VINEET K. RAWAT. 2023. Extended distribution of *Leptogramma stegnogramopsis* (C.F. Reed) Fraser-Jenk. and *Asplenium aethiopicum* (Burm. F.) Bech. In Arunachal Pradesh with five new records to the Pteridophyte Flora of Manipur, North-eastern India. *Indian Fern J.* 40(1): 89–99
17. SONI, ASHISH K., MAL SAWMLIANA AND VINEET K. RAWAT. 2023. *Huperzia herteriana* (Kümmerle) T. Sen & U. Sen (Lycopodiaceae): A addition to the Pteridophyte Flora of Mizoram, North East India. *Indian Fern J.* 40(1): 66–70
18. SONI, ASHISH K., VINEET K. RAWAT AND ABHINAV KUMAR. 2023. *Asplenium austrochinense* Ching (Aspleniaceae): An addition to the Pteridophyte Flora of India from Arunachal Pradesh. *Indian Fern J.* 40(1): 59–65
19. SONI, ASHISH K., VINEET K. RAWAT AND ABHINAV KUMAR. 2023. *Cystopteris Bernh.* (Woodsiaceae): A new generic record for the Pteridophyte Flora of North-eastern India from Arunachal Pradesh. *Indian Fern J.* 40(1): 109–114
20. SONI, ASHISH K., VINEET K. RAWAT AND ABHINAV KUMAR. 2023. Seven new additions to the Pteridophyte Flora of Arunachal Pradesh, North-eastern India. *Indian Fern J.* 40(1): 71–88
21. SONI, ASHISH K., VINEET K. RAWAT AND ABHINAV KUMAR. 2023. Two new records for the Pteridophyte Flora of North-eastern India from Arunachal Pradesh. *Indian Fern J.* 40(1): 100–108
22. SWAMY J, RASINGAM L, JALANDER V AND RAMANA P.V. 2022, *Exacum petiolare* Griseb. (Gentianaceae): A New Distributional Record to the Flora of Telangana, India. *Int. J. Recent Sci. Res.* 13(03): 516–517. <http://dx.doi.org/10.24327/ijrsr.2022.1303.0108>
23. SWAMY, J., L. RASINGAM, P.V. RAMANA AND V. JALANDER. 2022. Two New Additions to the Flora of Telangana, India, *Bioinfolet* 19(1): 61 – 64.

9 Book Chapters:

1. S, NISHA NANDHINI AND STALIN NITHANIYAL. Isolation of toxin producing Cyanobacteria from aquatic samples with *Oscillatoria*. In Thajuddin Nooruddin *et al.* (Eds): Protocols for Cyanobacteria Sampling and Detection of Cyanotoxin. Springer, Cham. ISBN (978-981-99-4513-9),(2023)
2. S, NISHA NANDHINI, KALLINGIL GOPI DIVYA AND STALIN NITHANIYAL. 2023. Isolation of toxin producing Cyanobacteria from aquatic samples with *Lyngbya*. In Thajuddin Nooruddin *et al.* (Eds): Protocols for Cyanobacteria Sampling and Detection of Cyanotoxin. Springer, Cham. ISBN (978-981-99-4513-9).
3. S. NISHA NANDHINI AND STALIN NITHANIYAL. 2023. Isolation of toxin producing Cyanobacteria from aquatic samples with *Raphidiopsis*. In Thajuddin Nooruddin *et al.* (Eds): Protocols for Cyanobacteria Sampling and Detection of Cyanotoxin. Springer, Cham. ISBN (978-981-99-4513-9).
4. S. NISHA NANDHINI AND STALIN NITHANIYAL. 2023. Isolation of toxin producing Cyanobacteria from aquatic samples with *Planktothrix*. In Thajuddin Nooruddin *et al.* (Eds): Protocols for Cyanobacteria Sampling and Detection of Cyanotoxin. Springer, Cham. ISBN (978-981-99-4513-9).
5. NITHYA, S.P., R. MANIKANDAN, W. ARISDASON, AND R.MEHALADEVI. 2021. International Botanical Congress and Code – A Glimpse. In: Krishnaveni, C., Kanchana, M., Tamil Selvi, K.S., Uma, E. & Sunitha Kumari, K. (Eds.), Taxonomy of Angiosperms: Field to Laboratory. *Blue Hill Publishers*, Coimbatore. Pp. 25–33.
6. MEHALADEVI, R., R. MANIKANDAN, W. ARISDASON, AND S.P. NITHYA. 2021. International Botanical Congress and Code – A Glimpse. In: Krishnaveni, C., Kanchana, M., Tamil Selvi, K.S., Uma, E. & Sunitha Kumari, K. (Eds.), Taxonomy of Angiosperms: Field to Laboratory. *Blue Hill Publishers*, Coimbatore. Pp. 35–37.
7. MANIKANDAN, R. AND W. ARISDASON. 2021. Herbarium Techniques. In: Krishnaveni, C., Kanchana, M., Tamil Selvi, K.S., Uma, E. & Sunitha Kumari, K. (Eds.), Taxonomy of Angiosperms: Field to Laboratory. *Blue Hill Publishers*, Coimbatore. Pp. 51–57.
8. ANANTHA LAKSHMI, M., R. MANIKANDAN AND W. ARISDASON. 2021. Herbarium: Record-keeping and Retrieval Systems. In: Krishnaveni, C., Kanchana, M., Tamil Selvi, K.S., Uma, E. & Sunitha Kumari, K. (Eds.), Taxonomy of Angiosperms: Field to Laboratory. *Blue Hill Publishers*, Coimbatore. Pp. 59–64.
9. ANANTHA LAKSHMI, M., R. MANIKANDAN AND C. MURUGAN. 2021. Botanical Interest in India – A pictorial view. In: Krishnaveni, C., Kanchana, M., Tamil Selvi, K.S., Uma, E. & Sunitha Kumari, K. (Eds.), Taxonomy of Angiosperms: Field to Laboratory. *Blue Hill Publishers*, Coimbatore. Pp. 163–170.