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

Date: 03.10.2023

DO. No.: BSI – 8/1/PA/2019 /1136

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 September, 2023.

Department: Botanical Survey of India

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

Scientists of BSI reported new records for India and various states which includes *Gloriosa simplex* L. (Colchicaceae): A new distributional record for India; *Loxostigma puhoatense* (Gesneriaceae): a new addition to Indian flora; *Zeuxine agyokuana* (Orchidaceae), a new record for Arunachal Pradesh; New distributional record of *Herpysma longicaulis* (Orchidaceae) from Manipur; *Crepidium mackinnonii* (Duthie) Szlach (Orchidaceae): A new record for Rajasthan, India; *Ipomoea rubens* Choisy (Convolvulaceae) an addition to the flora of Telangana state.

Scientists of BSI conducted 17 field / local tours and 1 Herbarium Consultation Tours and collected 769 field nos. of specimens. BSI completed metadata of 2543 herbarium specimens. During this month, 357932 visitors visited the official websites of BSI (137780 visitors referred official website, 125256 visitors referred archives, and 94896 visitors visited Indian Virtual Herbarium).

Important events / programmes organized / attended

- Hindi Pakhwada was organized at the different regional centres and units of BSI including Headquarter throughout September. Many events like essay competition, speech competition, noting and drafting, recitation, quiz competition etc., were organized.
 - All the regional centres/ units of Botanical Survey of India celebrated World Ozone Day 2023 on 16th September, 2023 by organizing awareness campaign on the theme: Montreal Protocol - Fixing the ozone and reducing climate change. Essay writing competition, Drawing, Quiz, and Extempore competition were also arranged by various centres of BSI.
 - Organized a workshop on 'Coconut craft making' on 02.09.2023, at BSI, ISIM Heritage Gallery. Sri Rathindranath Pramanick, Master Craftsman, National Awardee acted as a resource person and trained students of Govt. Art & Craft college, Kolkata.
 - Participated on 26th National Exhibition organized by Central Calcutta Science and Culture organization for youth at Salt lake Kolkata w.e.f. 24th to 27th August 2023 jointly with Central National Herbarium and Central Botanical Laboratory.
 - Under Special Campaign 3.0 of Swachh Bharat Abhiyan, BSI participated in Preparatory Phase and weeded out old records at various office which tolls upto 914 old record and files.
 - Under 'Mission Life Initiative', 1606 people visited selfie stand and took pledge in Industrial Section Indian Museum (ISIM) and celebrated Zero Emission Day on 21.09.2023 by organizing an awareness rally.
 - The Botanical Survey of India, Sikkim Himalayan Regional Centre, Gangtok, established and inaugurated a medicinal plants garden and organized awareness program at Kendriya Vidyalaya Gangtok on 8th September, 2023.
- 2 Botanical Assistants and 2 Senior Preservation Assistants joined as New recruits. During this month 32 research papers, 2 books and 2 book chapters got published by BSI scientists in International and National publications. (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,


03/10/2023
A. A. MAO

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

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List of Publication for September, 2023:

1. ARIGELA, R.K., P.H. KRISHNA, AND C.S. REDDY, 2023. *Euphorbia hypericifolia* L. (Euphorbiaceae), an Overlooked Invasive alien species from Telangana State, India, *Indian Forester*, 149 (8) : 885-886, 2023. DOI: 10.36808/if/2023/v149i8/164685.
2. BHADRA RUMA, SAIKAT NASKAR, ALTHAF A. KABEER AND PARIGI V. PRASANNA. 2023. "Effective Lectotypification of Three Names in *Poa* (Poaceae), Proposed by N.L. Bor". *Annales Botanici Fennici*, 60(1): 197-201.
3. CHOUDHARY, D., PRASAD, R AND MEENA, K.L. 2023. *Crepidium mackinnonii* (Duthie) Szlach (Orchidaceae): A New Record for Rajasthan, India. *Indian Forester* 149(8): 889–890. DOI: 10.36808/if/2023/v149i8/169704.
4. DEBTA, M.R., A. SHENOY AND A.A. MAO.2023. *Loxostigma puhoatense* (Gesneriaceae): a new addition to Indian flora. *Nelumbo*. 65(1).
5. GANTAIT, S., K. KARTHIGEYAN, S. L. MEENA, AND D.K. AGRAWALA.2023. Bibliography and Abstracts of Papers on Flora of Gujarat. EIACP (Flora), Botanical Survey of India, Kolkata. pp. 240. ISBN: 987-81-962640-0-0.
6. GHOSHAL, P.P. 2023. Interesting observation of Mahua (*Madhuca longifolia* var. *latifolia* (Roxb.) A.Chev) seed oil extraction in Betla National Park, Latehar, Jharkhand. *EIACP Newsletter* 28(1): 9–10.
7. HAJONG, S., D.L. BIATE., B. SHARMA., J. UCHOI., S.P. AHLAWAT AND K.C. BHATT (2023). Rice germplasm: History or rice germplasm collection and conservation in North Eastern India. In P.K. Barua, J. Das and S.K. Chetia (eds) *Rice Genetic Resources of North East India: Collection, conservation and utilization*. SM Press, Jorhat Pp 66-73.
8. HALDER, A.K., ARISDASON, W. & MAITY, D. 2023. A review on the typification of *Gentiana phyllocalyx* C.B. Clarke (Gentianaceae), *Pleione* 17(2): 211–214.
9. HAMEED, S. S., S.P. PANDA AND M. U. SHARIEF. 2023. Is *Hyphaene dichotoma* (White) Furtado, an indigenous 'Branching Palm' species under habitat threat? *Eco. Env. & Cons.* 29 (October Suppl. Issue): S381- S383.
10. HEMBROM M.E., A. PARIHAR, AND S.P. PANDA. 2023. Wood-rotting Fungi of Valmiki National Park, Bihar (India). *Biological Forum* 15 (5a):450-455.
11. HEMBROM, M. E., PARIHAR, A. AND PANDA, S. P. 2023. Wood rotting fungi of Valmiki National Park, Bihar (India). *Biological Forum- An International Journal*. 15(5a): 450-455.
12. ISLAM SK RASIDUL., A. K. MANDAL AND D. SINGH 2023. *Cyathodium denticulatum* (Cyathodiaceae; Marchantiophyta): A Rare Species New to Bryoflora of Jharkhand, India. *Journal Plant Science Research* 39(2): 49-54.
13. K. CHAKRABORTY AND SWAIN, H. (2023). Future of Plant Biotechnology: A Way Forward. In: Sethi, S.K., Satpathy, R., and Kujur, M. (eds) *Biotechnology: Recent Scopes and Dimensions*. Selfypage Developers Pvt. Ltd. pp 52-63.
14. KOTTAIMUTHU, R. 2023. A new name for *Lysimachia sedoides* W.B.Xu, C.Y.Zou & B.Pan (Primulaceae). *Taiwania* 68(3): 383.
15. KOTTAIMUTHU, R. 2023. *Palicourea greeneana* (Kuntze) Kottaimuthu, the correct name for *Mapouria insignis* Müller (Rubiaceae). *Phytotaxa* 613(1): 79–80.
16. LOKHO, K., A.K. HALDER, D.K. AGRAWALA, A. BHATTACHARJEE AND D. MAITY. 2023. New distributional record of *Herpysma longicaulis* (Orchidaceae) from Manipur, India. *Nelumbo* 65(1): 204–206.
17. MAJI, A., T. SHIL, AND K. KARTHIGEYAN. 2022. Know your Botanist – Charles Baron Clarke. *ENVIS Newsletter* 27(2): 11.
18. MAZHAR, Z., R. BHADRA, M. PAL, H.J. NOLTIE AND K. KARTHIGEYAN.2022. Historical Paintings at the Central National Herbarium. *EIACP Newsletter* 27(3): 2-7.
19. PANDA, S. P., M. U. SHARIEF., S. S. HAMEED AND H. N. SUBUDHI. 2023. A Glimpse of the Ecology and Conservation Strategies of Orchids of Odisha, India. *Eco. Env. & Cons.* 29(4): 83-88.
20. PANDA, S. P., R. K. NAYAK., ANURADHA PRADHAN., CHINMAYEE SAHOO AND H. N. SUBUDHI. 2023. Diversity of *Solanum sisymbriifolium* Lam.- An invasive and wild relative of cultivated Brinjal (*Solanum melongana* L.) in India. *Biological Forum- An International Journal*. 15(5a): 456-458.
21. PANDA, S.P., PRASAD, R AND BARMAN, R.D. 2023. Some Potential Medicinal Plants Used by the Tribals of Angul District, Odisha, India. *Explor. Anim. Med. Res.* 13(Ethnomed. Spl.): 71–77. DOI: 10.52635/camr/13(S)71-77.
22. PRASAD, R., S. P. PANDA., T. SAHA., S. DASGUPTA., R. D. BARMAN., A. SATHIKUMAR AND D. SINGH. 2023. *Gloriosa Simplex* L. (Colchicaceae): A new distributional record for India. *Vegetos*. DOI: <https://doi.org/10.1007/s42535-023-00671-9>.

23. PRASAD, RAVI., K. L. MEENA AND S. P. PANDA. 2023. Urgent need of special conservation efforts for the critically endangered species *Commiphora wightii* (Arn.) Bhandari in Sariska Tiger Reserve, Rajasthan (India). *Biological Forum- An International Journal*. 15(4): 861-864.
24. RAVI, G., A. APPAIAH, D. VEERANJANEYULU AND J. SWAMY 2023. *Ipomoea rubens* Choisy (Convolvulaceae)-An addition to the flora of Telangana state, India. *International Journal of Botany Studies* 8 (9): 29-31.
25. SAHA SOURAV, ARIN BHATTACHARJEE, BASANT KUMAR SINGH, ANKUSH BISWAS AND SAIKAT SEN. 2023. An ethnobotanical study of the indigenous medicinal knowledge by the rural people in different villages of Agaya Narah Gram Panchayat, West Bengal, India. *Plant Biosystems - An International Journal Dealing with all Aspects of Plant Biology*. 157(5): 935-938.
26. SENSARMA, S., C. DEORI AND U. SHANKAR. 2023. Quantitative Ethnobotany of some *Ficus* species in Khasi and Jaintia hills, Meghalaya, India. *Explor. Anim. Med. Res.* 13:102-108.
27. SHERPA, N., L. SHERPA, K. BISWAS AND C. NASKAR. 2023. Floral diversity of Darjeeling Government College campus, Darjeeling, West Bengal, India. *International Education & Research Journal* 9 (8): 30-32.
28. SHIL, T. A. MAJI AND K. KARTHIGEYAN .2022. *Typhonium trilobatum* (L.) Schott (Araceae) – a lesser-known edible leafy vegetable in Wet Bengal. *ELACP Newsletter* 27(4): 7-8.
29. SWAIN, H., NAIK, S.K. AND MUKHERJEE, A.K. (2023). Utilization of Arbuscular Mycorrhizal Fungi to Boom the Efficiency and Product Nature of Horticultural Crops. In: Nayak, S.K., Baliyarsingh, B., Singh, A., Mannazzu, I., Mishra, B.B. (eds) *Advances in Agricultural and Industrial Microbiology*. Springer, Singapore. https://doi.org/10.1007/978-981-16-9682-4_7
30. TSERING, J. A. BHATTACHARJEE AND K. RINYA. 2023. *Zeuxine agyokuana* (Orchidaceae), a new record for Arunachal Pradesh, India. *Nelumbo* 65(1): 191-193.
31. YADAV, S.K., A. SANTHOSH KUMAR Y. AND M. PALANISAMY, 2023. Seaweeds as natural resource for Agar-Agar extraction in India– A Review. *Agro Economist* 10(2): 201-208. DOI: 10.30954/2394-8159.02.2023.13

BOOK

1. DAS, K. 2023. Russulales of Sikkim. Botanical Survey of India, Kolkata. 218 pp.
2. R. MANIKANDAN, S. P. NITHYA, AND R. MEHALA DEVI Checklist Flora of Sunderdhunga Valley, Western Himalaya, with Emphasis on Ethno-Medicinal Plants. In: Bio-prospecting of Tropical Medicinal Plants. (Eds.) K. Arunachalam, Xuefei Yang & Sreeraj P.S in Bio-prospecting of Tropical Medicinal Plants p. 159-226. Publisher Springer. ISBN 978-3-031-28780-0 <https://doi.org/10.1007/978-3-031-28780-0>.

Book Chapters-2

1. SINGH, L.J., VIVEK, C.P., DEY, B.C., PUROHIT, C.S., EKKA, G.A., NAIK, M.C. AND SALEEM, F. 2023. Dhanikhari Experimental Garden-Cum-Arboretum In: Botanical Gardens and Their Role in Plant Conservation. Asian Botanical Gardens, Volume 2 (Pullaiah & Galbraith Eds.). eBook ISBN: 9781003281252. DOI: 10.1201/9781003281252-11.
2. CHAKRABORTY, K AND H. SWAIN. 2023. Future of plant biotechnology: A way forward. In: Sethi SK, Satpathy R, Kujur M (Eds) *Biotechnology: Recent scopes and Dimensions*. Gangadhar Meher University, Sambalpur, Odisha. Volume 1: 52-63