

ए.ए. माओ
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 / 650

Date: 30.04. 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 April, 2024.

Department: Botanical Survey of India

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

Scientists of BSI reported 4 New taxa viz., *Gomphostemma andamanensis* L.J. Singh, M.C. Naik, & G.A. Ekka (Lamiaceae), *Crotalaria nicobarica* F. Saleem, L.J. Singh, S. Subramaniam & A. K. Pandey (Fabaceae), *Cyrtandromoea sudhansui* Chowlu, A. Shenoy & Nuraliev (Phrymaceae), *Xiuguozhangia macrospora* Rashmi Dubey & S. Jash (Pezizomycotina, Ascomycota). Moreover, 4 New records for India, 9 New records for the states as plant discoveries and solved many nomenclatural problems for the Flora of India (Annexure I).

Scientists of BSI conducted 11 field / local tours 2 Herbarium consultation tour and collected 585 field nos. of specimens. BSI prepared metadata of 4177 herbarium specimens. During this month, 257,618 visitors visited the official websites of BSI (1,06,691 visitors referred official website, 75,400 visitors referred archives, and 72,527 visitors visited Indian Virtual Herbarium).

Important events / programs organized / attended:

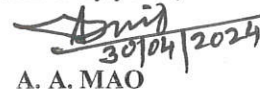
- The Central National Herbarium, Botanical Survey of India organized a three-day workshop-cum hands-on training on Plant Molecular Systematics from 2nd to 4th April 2024. This workshop had 24 participants from various states across the country.
- Dr. G.S. Panwar, Scientist 'E', attended a meeting chaired by ADGF (PT&E) and CITES to discuss the "Proposal of Germany for inclusion of certain plant species in CITES Appendix-II" held at MoEF&CC on 4th April, 2024.
- Dr. A.A. Mao, Director, BSI and Dr. S.S. Dash, Scientist 'F', attended Intra-Ministerial Consultation Meeting on the updation of NBSAP and adoption NBT's in-line with Kunming-Montreal Global Biodiversity Framework held on 5th April, 2024.
- Dr. A. A. Mao, Director, BSI attended the 24th Meeting for Scientific Advisory Committee (S.A.C) of IBSD, Imphal under DBT, Ministry of Science & Technology on 9th-11th April, 2024.
- E-Office Training: BSI Staff attended webinar/training regarding e-office by IT cell of MoEF&CC on 12th April, 2024.
- Industrial Section Indian Museum (ISIM), Botanical Survey of India (BSI) has celebrated World Art Day 2024 on 15th April, 2024, to honour the Birthday of Leonardo Da Vinci, for his contribution in the fields of art, architecture, painting, and sculpture.
- Successfully conducted Internal Audit at BSI Head Quarter from 15th-19th April, 2024.
- All the offices of BSI celebrated the World Earth Day on 22nd April, 2024 focused on this year's theme, "Planet vs. Plastic."
- On 25th April, 2024, Shri Sakesh Prasad Singh, the Chief Controller of Accounts, Ministry of Environment, Forest, and Climate Change (MoEF&CC), paid a visit to the AJC Bose Indian Botanic Garden (AJCBIBG), and Central National Herbarium (CNH), Howrah.
- Dr. S.S. Dash, Scientist 'F', attended the second meeting of the expert committee on 'Digital Sequence Information (DSI)' held on 25th April, 2024 at Hyderabad, in the light of Target No. 13 of Kunming-Montreal Global Biodiversity Framework (GBF), adopted by COP-15 in December 2022.
- Dr. S.S. Dash, Dr. A. Benniamin & Dr. C. Murugan, Scientists 'F' attended the PARI training on "Preventive Vigilance and Good Governance" on 29th-30th April 2024.

During this month 40 research papers and 4 books 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

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

Research Papers: 37

1. APPAIAH, A., J. SWAMY, G. RAVI AND D. VEERANJANEYULU. 2023. Floristic diversity of Pranahita Wildlife Sanctuary, Telangana, India. *Nelumbo* 65(2):161–176. DOI: 10.20324/nelumbo/v65/2023/173203.
2. ARIGELA R.K., KATHULA T., SINGH R.K., PRASAD K., PANWAR D AND SIDDABATHULA N. 2024. Wild Caryopsis preferences of Indian Silverbill (*Euodice malabarica*) in Jodhpur, Rajasthan, India. *Nelumbo* 65(2): 181–186.
3. ARIGELA, R.K., R.K. SINGH AND K.A.A. KABEER, 2024. Taxonomy and Lectotypification of *Isodon rivularis* (Lamiaceae), a Little-Known, Endangered Herb of Southern India. *The Journal of Japanese Botany* 99(2): 113–117. <https://doi.org/10.51033/jjapbot.ID0198>.
4. ARUMUGAM, S. G.V.S. MURTHY AND V.J. NAIR. 2023. Taxonomic revision of the genus *Muhlenbergia* Schreb. (Poaceae: Chloridoideae) in India. *Nelumbo*. 65(2): 130–141.
5. BANDYOPADHYAY, S AND A. KUMAR. 2024. Four new combinations in *Phanera* (Leguminosae: Cercidoideae) from some countries of Indo-China. *Phytotaxa* 642(4): 295–296.
6. BHATTACHARJEE, A. AND S. BANDYOPADHYAY. 2024. *Rafflesia arnoldii* vs. *Rafflesia arnoldi* (Rafflesiaceae). *BSI-ELACP Newsletter* 28(4): 4.
7. BIATE, DAVID L., D.K. AGRAWALA, SUBARNA HAJONG 2023. Studies in the family Onagraceae Juss. for the Flora of Sikkim. *Nelumbo* 65(2): 61–91 (Online). DOI: <https://doi.org/10.20324/nelumbo/v65/2023/173271>
8. CHOWLU KRISHNA AND SOURAVJYOTI BORAH. 2024. Extended Distribution record of two threatened species of *Impatiens* from Arunachal Pradesh, India. *Journal of Bioresources* 11 (1): 07–10, January – March.
9. CHOWLU, KRISHNA, AKSHATH SHENOY AND MAXIM S. NURALIV. 2024. *Cyrtandromoea sudhansui* (Phrymaceae), a new species from Northeast India. *Phytotaxa*. 642 (1): 104–110.
10. DAS, K., S. DATTA, U. SINGH, A. GHOSH AND D. CHAKRABORTY. 2024. Multigene molecular phylogeny and morphological evidences reveal one new species and three new records of boletoid fungi from India. *Nelumbo* 65(2): 1–18.
11. DEY, B.C., G.A. EKKKA, P.A. DHOLE, C.P. VIVEK, AND L.J. SINGH, 2023. *Torenia bicolor* Dalzell (Scrophulariaceae)–A new addition to the flora of Andaman and Nicobar Islands, India. *Nelumbo* 65(2): 206–207. DOI: 10.20324/nelumbo/v65/2023/173236.
12. DUTTA PRAMANICK, DEBASMITA AND MANAS BHAUMIK 2024. Extended distribution of *Clematis wallichiana* (Ranunculaceae) in the state of Arunachal Pradesh – A hitherto endemic species to Western Ghats, India. *Journ. Threat. Taxa* 16(3): 24999 – 25002.
13. JAGADEESH RAM T.A.M. AND G.N. MATHEW. 2023. The lichen genus *Letrouitia* in the Andaman and Nicobar Islands. *Nelumbo* 65(2): 92–96.
14. KRISHNA, G., A. KUMAR AND V. RANJAN. 2023. Two new additions to the Flora of West Bengal from Neora Valley National Park. *Nelumbo* 65(2):1–2
15. M. SANKARARAO, 2024. Sacred Groves. *Yojana* English, Pp. 27–34.
16. MAHESH, Y., L. RASINGAM AND M. VENKAT RAMANA. 2023. *Fimbristylis hookeriana* (Cyperaceae), a new addition to the flora of Andhra Pradesh, India. *Nelumbo* 65(2), 202–203. <https://doi.org/10.20324/nelumbo/v65/2023/173205>

17. MAITY, R. AND S.S. DASH, 2024. Two new synonyms in *Phlogacanthus* (Acanthaceae). *Rheedea* 34(1): 77–79. <https://dx.doi.org/10.22244/rheedea.2024.34.01.11>
18. MAITY, R., K. CHOWLU, AND S.S. DASH, 2024. The current status of *Henckelia peduncularis* (Gesneriaceae): Taxonomy, typification, distribution and IUCN Red List assessment. *Phytotaxa* 644(1): 27–34. 10.11646/PHYTOTAXA.644.1.4
19. MAJI, A., KARTHIGEYAN, K. & SHIL, T. 2024. *Sonneratia apetala* Buch.–Ham. (Sonneratiaceae): A mangrove species for potential juice and medicine in India. *ELACP Newsletter* 28(4): 10.
20. MAO, A.A., D.K. AGRAWALA, VIVEK C.P. 2023. African bitter leaf (*Vernonia amygdalina* Delile) - a medicinal and nutritional wonder of family Asteraceae. *Nelumbo* 65(2): 19–26 (Online). DOI: <https://doi.org/10.20324/nelumbo/v65/2023/173240>
21. MASTAKAR, V. K AND SHYAM BISWA. 2023. *Vigna stipulacea* (Fabaceae): An addition to the state flora of Bihar, India. *Nelumbo* Vol. 65(2): 204–205. DOI: 10.20324/nelumbo/v65/2023/173232.
22. MASTAKAR, V. K., ZEESHAN MAZHAR AND S.P. PANDA. 2024. *Swainsona formosa* (Fabaceae; Papilionoideae): A New Addition to the Garden Flora of India. *Biological Forum – An International Journal* 16(3): 239–241.
23. MEENA, S. L., P. HARI KRISHNA, P. K. DEROLIYA AND N. SIDDABATHULA 2023. Grasses of Shoolpaneshwar Wildlife Sanctuary, Gujarat, India. *Nelumbo* 65(2), 120–129. <https://doi.org/10.20324/nelumbo/v65/2023/172947>.
24. PURTI, N., L.J. SINGH AND A.K. PANDEY. 2023. Life history traits of cycad blue butterfly, *Luthrodes pandava*, Horsfield (Lepidoptera: Lycaenidae) on cycad hosts in an Island ecosystem. *Feddes Repertorium*. <https://doi.org/10.1002/fedr.202300001>
25. R.K. Singh & R.K. Arigela. 2024. *Cyrtandra schlechterianum*, a replacement name for *C. glabrata* Schltr. (Gesneriaceae). *The Journal of Japanese Botany* 99(2): 110–112. 2024. <https://doi.org/10.51033/jjapbot.ID0180>.
26. R.K. Singh & R.K. Arigela. 2024. Revisiting the Typification of Several Indian Cucurbits (Cucurbitaceae). *The Journal of Japanese Botany* 99(2): 99–109. <https://doi.org/10.51033/jjapbot.ID0168>.
27. RAI, PRAMOD, PRAKASH LIMBOO, MADHUSUDHAN KHANAL, SHUVADIP SARKAR, D.K. AGRAWALA 2023. *Bulbophyllum nigrescens* Rolfe. (Orchidaceae), a new record for India. *Nelumbo* 65(2): 158–160 (Online). DOI: <https://doi.org/10.20324/nelumbo/v65/2023/173226>
28. RANJAN, V., A. KUMAR AND G. KRISHNA. 2024. Re-collection of *Pimpinella tongloensis* (Apiaceae) after more than a century. *Journal of Japanese Botany* 99: 92–95
29. RASHMI DUBEY AND S. JASH. 2024. *Xiuguozhangia macrospora* (Pezizomycotina: Ascomycota) – a new species of bambusicolous fungi from India. *Phytotaxa* 644(1): 69–73. DOI: 10.11646/PHYTOTAXA.644.1.10
30. SALEEM, F., L.J. SINGH, S. SUBRAMANIAM AND A.K. PANDEY. 2023. *Crotolaria nicobarica* (Fabaceae): a new species from Andaman and Nicobar Islands, India. *Nordic Journal of Botany*. <https://doi.org/10.1111/njb.04077>
31. SANKARA RAO, M., P. HARI KRISHNA, B. SURESH KUMAR, N.S.S.N. KEDARESWARE, V. GNANOJWALA, AND K. KALYANI BAI 2023. *Micropera pallida* (Roxb.) Lindl. (Orchidaceae): A New Generic record to the Flora of Andhra Pradesh. *Nelumbo* 65 (2): 208–209.
32. SANKARA RAO, M., P. HARI KRISHNA, V. GNANOJWALA, B. SURESH KUMAR, N.S.S.N. KEDARESWARE, T. ARAVINDA, AND K. KALYANI BAI 2023. Phytodiversity

- of Gorabanda Sacred Grove, Alluri Sitarama Raju District, Andhra Pradesh, India. *Nelumbo* 65(2): 147-153.
33. SINGH R.K AND KUMAR S. 2024. *Ilex edwinii* R.Kr.Singh & Sanjeet Kumar, a replacement name for *I. sulcata* Edwin (Aquifoliaceae). *Journal of Biodiversity and Conservation* 8(2): 03–07.
 34. SINGH R.K AND KUMAR S. 2024. *Polyscias lallanii* R.Kr.Singh & Sanjeet Kumar, a replacement name for *P. racemosa* (C. N. Forbes) Lowry & G. M. Plunkett (Araliaceae). *Journal of Biodiversity and Conservation* 8(2): 17–22.
 35. SINGH R.K. AND KUMAR S. 2024. A new combination in *Combretum* (Combretaceae). *Journal of Biodiversity and Conservation* 8(2): 01–02.
 36. SINGH, L.J., M.C. NAIK AND G.A. EKKI. 2023. A new species of *Gomphostemma* (Lamiaceae) from the Andaman and Nicobar Islands, India. *Feddes Repertorium*. <https://doi.org/10.1002/fedr.202200013>
 37. SINGH, R.K. AND R.K. ARIGELA. 2024. Nomenclatural novelties in Fabaceae. *Journal of Biodiversity and Conservation* 8(2): 28–39.
 38. SUJANA K. A., S. ARUMUGAM, AKHIL SAJAN AND S. NAVYA. 2023. On the identity and distribution of *Varronia curassavica* (Boraginaceae), a naturalised tropical American species in India from Kerala. *Nelumbo*. 65(2): 187–189.
 39. SWAMY, J AND L. RASINGAM. 2023. *Chlorophytum kolhapurens* (Asparagaceae): A new distributional record of an endemic geophyte to the flora of Eastern Ghats. *Nelumbo* 65(2): 214–215. DOI: 10.20324/nelumbo/v65/2023/173234
 40. TSERING J., KRISHNA CHOWLU AND P. KUMAR. 2024. *Bulbophyllum basiophyllum* (Orchidaceae) from India – further extension of a recently described species in the East Himalaya Biodiversity Hotspot. *Rheedea*. 34 (1): 27-30.

Books Published during April 2024

1. FLORA OF INDIA, VOLUME 20 (GESNERIACEAE–ACANTHACEAE), ISBN: 978-81-965332-1-2
2. FLORA OF UTTAR PRADESH, VOLUME 3 (HYDROCHARITACEAE–POACEAE), ISBN: 978-81-965332-2-9
3. FLORA OF MANIPUR, A PICTORIAL GUIDE, ISBN: 978-81-958726-7-1
4. WOOD-ROTTING FUNGI OF KODERMA WILDLIFE SANCTUARY, JHARKHAND. Botanical Survey of India, Kolkata. pp 1–219. ISBN: 978-81-965332-9-8. by PARIHAR, A., M.E. HEMBROM AND K. DAS.

Journals Published

1. NELUMBO – THE BULLETIN OF BOTANICAL SURVEY OF INDIA VOLUME 65 (2) [Online]. 2023, ISSN (Print): 0976-5069, ISSN (Online): 2455-376X

New Species: (4 Taxa)

1. <i>Gomphostemma andamanensis</i>	Lamiaceae	L.J. Singh, M.C. Naik, & G.A. Ekka
2. <i>Crotalaria nicobarica</i>	Fabaceae	F. Saleem, L.J. Singh, S. Subramaniam & A. K. Pandey
3. <i>Cyrtandromoea sudhansui</i> Chowlu, A. Shenoy & Nuraliev	<i>Phrymaceae</i>	Krishna Chowlu, Akshath Shenoy & Maxim S. Nuraliv
4. <i>Xiuguo Zhangia macrospora</i> Rashmi Dubey & S.Jash	Pezizomycotina, (Ascomycota)	Rashmi Dubey

New Records for India (4 Taxa)

Name of the species with author citation of which new record has been made	Family	Name of the Official(s) who identified species as new record
1. <i>Bulbophyllum basiophyllum</i> M.K. Li, J. P. Deng & Y. Luo Area: East Himalaya Biodiversity Hotspot	Orchidaceae	J. Tsering, Krishna Chowlu & P. Kumar
2. <i>Letrouitia flavidula</i> (Tuck.) Hafellner	Lichen	Dr. Jagadeesh Ram T.A.M., Scientist 'E'
3. <i>Letrouitia parabola</i> (Nyl.) R. Sant. & Hafellner	Lichen	Dr. Jagadeesh Ram T.A.M., Scientist 'E'
4. <i>Bulbophyllum nigrescens</i> Rolfe.	Orchidaceae	Rai, Pramod, Prakash Limboo, Madhusudhan Khanal, Shuvadip Sarkar,

New Records for State (9 Taxa)

Name of the species with author citation of which new record for state has been made	Name of the family	New Record for the state	Name of the official(s) who identified the species as new record for state
1. <i>Impatiens sikkimensis</i> Govaerts & Chakrab.	Balsaminaceae	Arunachal Pradesh	Krishna Chowlu and Souravjyoti Borah
2. <i>Impatiens tuberculata</i> Hook.f. & Thomson	Balsaminaceae	Arunachal Pradesh	Krishna Chowlu & Souravjyoti Borah
3. <i>Letrouitia aureola</i> (Tuck.) Hafellner & Bellem.,	Lichen	Andaman and Nicobar Islands	Dr. Jagadeesh Ram T.A.M., Scientist 'E'
4. <i>Letrouitia flavocrocea</i> (Nyl.) Hafellner & Bellem.	Lichen		
5. <i>Letrouitia muralis</i> Hafellner	Lichen		
6. <i>Torenia bicolor</i> Dalzell	Scrophulariaceae	Andaman and Nicobar Islands	Dey, B.C., G.A.Ekka, P.A. Dhole, C.P. Vivek, and L.J. Singh,

7. <i>Fimbristylis hookeriana</i>	Cyperaceae	Andhra Pradesh	Mahesh, Y., L. Rasingam and M. Venkat Ramana
8. <i>Vigna stipulacea</i>	Fabaceae	Bihar	Mastakar, V. K and Shyam Biswa.
9. <i>Micropera pallida</i> (Roxb.) Lindl.	Orchidaceae	Andhra Pradesh.	Sankara Rao, M., P. Hari Krishna, B. Suresh Kumar, N.S.S.N. Kedareswari, V. Gnanojwala, and K. Kalyani Bai