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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 / 1241

Date: 02.12.2021

Dear Smt. Pandey,

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 **November, 2021**

Department: Botanical Survey of India

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

Scientists of BSI reported **three new taxa of plants** viz. *Septemeranthus nicobaricus* (Loranthaceae) from the Andaman and Nicobar Islands, *Cyanotis deccanensis* (Commelinaceae) from the Eastern Ghats, Andhra Pradesh and *Dendrobium gopalanii* (Orchidaceae) from the Western Ghats. Besides, BSI also reported **nine taxa** as new additions to various states viz. *Digitaria violascens* (Poaceae), *Dimeria bialata* (Poaceae), *Erycibe paniculata* (Convolvulaceae), *Heteropogon polystachyos* (Poaceae), *Phaulopsis imbricata* (Acanthaceae), *Urochloa glumaris* (Poaceae) to the flora of Andhrapradesh and Telangana; *Veronica ciliata* subsp. *cephaloides* (Plantaginaceae) to the flora of Himachal Pradesh; *Lejeunea subolivaceae* (Lejeuneaceae) to the flora of Jharkhand and *Murdannia triquetra* var. *ahuchawlense* (Commelinaceae) to the flora of Assam. Besides, Scientists of BSI incorporated 9 species of *Impatiens* in the database of The IUCN Red List of Threatened Species. BSI completed metadata of 61,366 herbarium specimens. During the month, 7 field / local tours were conducted and 89 field numbers of plants were collected.

Important events / programmes organized / attended:

- Dr. A.A. Mao, Director, BSI attended as chief guest in the workshop on "Plant Taxonomy: Classical to Molecular" organized by the Mansarovar Global University, in association with BSI, from 29th November to 4th December 2021 in Bhopal. He also delivered a lecture in the webinar organized by the Central University of Punjab, Bathinda on 22.11.2021.
- BSI, AJCB Indian Botanic Garden, Howrah, demonstrated and made exhibition for the visit of 45 Range Forest Officers from the Tamil Nadu Forest Academy, Coimbatore as a part of induction training course.
- BSI, CNH, Howrah organized one day national workshop on 'Cyber Security' on 15.11.2021.
- BSI, ANRC, Port Blair organized a two months certificate course on "Waste Management" under Green Skill Development Programme from 17.11.2021 to 18.01.2022 as a joint venture with the C.P.R. Environmental Education Centre, Port Blair.
- Dr. S.S. Dash, Scientist E & Incharge, Tech. sect., BSI attended a virtual meet on 'National Policy and Action Plan on Management of Alien Invasive Species' organized by MoEF&CC on 10.11.2021.
- Dr. S.K. Singh, Scientist E & Head, BSI, NRC Dehradun attended a meeting called by IGNFA, Dehradun on 17.11.2021.
- Dr. Rajib Gogoi, Scientist 'E' & Head, BSI, SHRC, Gangtok attended as "Guest of honor" in the Annual Research Council meeting of Indian Cardamom Research Institute, Gangtok at ICAR complex, Tadong on 17.11.2021.
- Dr Arti Garg, Scientist 'E' & Head, BSI CRC, Allahabad attended 2 days All India Conference on Rajbhasha at Varanasi from 13/11/2021 to 14/11/2021 organized by TOLIC.

Important scientific publications:

During this month 33 research publications have been published by BSI scientists in various international and national research journals (Annexure 1).

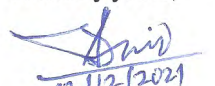
- Important policy matter is held up on account of prolonged inter-ministerial consultation: Decision taken for filing suit for recovery of embezzlement amount from the property of Sabyasachi Saha.
- Compliance of COS decisions: Nothing pending
- No. of cases of 'Sanction for prosecution' pending for more than 3 months: NIL
- Particulars of cases in which there has been a departure from the Transaction of Business Rules or established policy of the government: NIL
- Status of implementation of e-governance: PFMS, CPGRAMS, e-Publications, GEM Portal of *Nelumbo* etc. have already been implemented.
- Details of cases in which ACC directions have not been complied with: NIL
- Status of Public grievances:

No. of public grievances redressed during the month	No. of Public grievances pending at the end of month
0	0

- Information on the specific steps taken by the ministry/department for utilization of the space technology based tools and applications in governance and development: NIL

With regards,

Sincerely yours,


02/12/2021
A. A. MAO

To
Smt. Manju Pandey, Jt. Secretary, (CS), MoEF & CC, New Delhi – 3



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List of Publications in November, 2021

Research Papers published: 33

1. ARIGELA R.K., K.A.A. KABEER AND J.S. JALAL 2021. Sympodial epiphytic orchid *Oberonia maxima* C.S.P. Parish ex Hook.f. in Kodaikanal Wildlife Sanctuary, Tamil Nadu, India. *Species* 22(70): 388–391.
2. BHATTACHARJEE, A., D. K. AGRAWALA, J. S. JALAL AND C. DEORI 2021. Three new synonyms in *Gastrochilus* (Orchidaceae) with notes on typification of *Gastrochilus calceolaris* and misreport of *Gastrochilus changjiangensis* from India. *Botany Letters*. DOI: 10.1080/23818107.2021.2000889.
3. BONDYA, S. L., S. K. SINGH AND SHASHI KUMAR 2020. *Lejeunea subolivaceae* (Lejeuneaceae: Marchantiophyta) - A new addition to Bryoflora of Jharkhand, India. *Indian J. Forestry*, 43(4): 350-352.
4. DUTTA PRAMANIK, DEBASMITA, G.G. MAITY & M.S. MONDAL 2021. Node-petiole anatomy and foliar Architectural pattern of some members of the family Nyctaginaceae in India. *eJ. Appl. Forest Ecology* 9(1): 29-44.
5. DUTTA PRAMANIK, DEBASMITA, G.G. MAITY AND M.S. MONDAL 2021. Study on the genus *Pisonia* L. (Nyctaginaceae) in Andaman & Nicobar Islands, India. In: *Recent Progerss in Plant and Soil Research*, Sosa Francisco Cruz (ed.) vol.3, chapter 2, pp.20-26, B.P. International, Hooghly, West Bengal.
6. GEIGER D.L., M. SULAIMAN AND C. MURUGAN 2021. Studies in *Oberonia* 10. A re-evaluation of *Oberonia brachystachys* and *O. subligaculifera* (Orchidaceae: Malaxideae) and their synonyms. *Rheedea* 31(3): 141-160.
7. GOGOI, R. AND N. SHERPA 2021. *Impatiens cathcartii*. *The IUCN Red List of Threatened Species*. e.T188780020A188792849. doi: [10.2305/IUCN.UK.2021-2.RLTS.T188780020A188792849.en](https://doi.org/10.2305/IUCN.UK.2021-2.RLTS.T188780020A188792849.en)
8. GOGOI, R. AND N. SHERPA 2021. *Impatiens pseudolaevigata*. *The IUCN Red List of ThreatenedSpecies* 2021 e.T188780625A188780762.doi:[10.2305/IUCN.UK.2021-2.RLTS.T188780625A188780762.en](https://doi.org/10.2305/IUCN.UK.2021-2.RLTS.T188780625A188780762.en)
9. GOGOI, R. AND N. SHERPA 2021. *Impatiens serratifolia*. *The IUCN Red List of ThreatenedSpecies* 2021 e.T188780496A188792854.doi: [10.2305/IUCN.UK.2021-2.RLTS.T188780496A188792854.en](https://doi.org/10.2305/IUCN.UK.2021-2.RLTS.T188780496A188792854.en)
10. GOGOI, R., N. SHERPA AND D. K. AGRAWALA 2021. *Impatiens dalaiensis*. *The IUCN Red List of Threatened Species* 2021 e.T188780602A188792859.doi: [10.2305/IUCN.UK.2021-2.RLTS.T188780602A188792859.en](https://doi.org/10.2305/IUCN.UK.2021-2.RLTS.T188780602A188792859.en)
11. GOGOI, R., N. SHERPA AND D.K. AGRAWALA 2021. *Impatiens sikkimensis*. *The IUCN Red List ofThreatened Species* 2021e.T188780553A188780752.doi: [10.2305/IUCN.UK.2021-2.RLTS.T188780553A188780752.en](https://doi.org/10.2305/IUCN.UK.2021-2.RLTS.T188780553A188780752.en)

12. GOGOI, R., N. SHERPA AND D.K. AGRAWALA 2021. *Impatiens zironiana*. *The IUCN Red List of Threatened Species* 2021 e.T188780660A188780767.doi: [10.2305/IUCN.UK.2021-2.RLTS.T188780660A188780767.en](https://doi.org/10.2305/IUCN.UK.2021-2.RLTS.T188780660A188780767.en)
13. GOGOI, R., N. SHERPA AND D.K. AGRAWALA 2021. *Impatiens cothurnoides*. *The IUCN Red List of Threatened Species*. 2021e.T188780143A188780742.doi: [10.2305/IUCN.UK.2021-2.RLTS.T188780143A188780742.en](https://doi.org/10.2305/IUCN.UK.2021-2.RLTS.T188780143A188780742.en)
14. GOGOI, R., N. SHERPA AND J.H. FRANKLIN BENJAMIN 2021. *Impatiens infundibularis*. *The IUCN Red List of Threatened Species* 2021e.T188780365A188780747.doi:[10.2305/IUCN.UK.2021-2.RLTS.T188780365A188780747.en](https://doi.org/10.2305/IUCN.UK.2021-2.RLTS.T188780365A188780747.en)
15. GOGOI, R., N. SHERPA AND J.H. FRANKLIN BENJAMIN 2021. *Impatiens lohitensis*. *The IUCN RedList of Threatened Species* 2021 e.T188780597A188780757.doi: [10.2305/IUCN.UK.2021-2.RLTS.T188780597A188780757.en](https://doi.org/10.2305/IUCN.UK.2021-2.RLTS.T188780597A188780757.en)
16. GUPUTA, P. 2021. First Report of Diversity of Cyanoprokarotes and Algae on Feather of Snow Petrel (*Pagodromanivea* Forster) in Broknes Peninsula of Larsemann Hills, East Antarctica. *International J. Biolog. Innovat.* 3(2): 373-381.
17. HALDER, A. C., P. K. BASKE AND P. A. DHOLE 2021. Ethnomedicinal plants used by the tribes of Nayagarh district, Odisha. *International J. Botany Studies*. 6(5):1318-1326.
18. JOSHI, B., G.S. PANWAR AND S.K. SINGH 2021. *In vitro* propagation of insectivorous plant *Nepenthes khasiana* Hook. F.— an endangered ornamental and ethnomedicinal species. *Vegetos*. <https://doi.org/10.1007/s42535-021-00310-1>.
19. KUMAR R, A.K. KHARE, A.K. VERMA AND K.A. BHARTI 2020. Diversity of angiosperms in Bareilly, Uttar Pradesh. *Indian J. Forestry*. 43(3): 212-227,
20. KUMAR, P., P. K. DEROLIYA AND S. K. SINGH 2021. *Veronica ciliata* subsp. *cephaloides*: a new record for the flora of Himachal Pradesh (India) with an updated checklist of the genus *Veronica* in India. *Indian J. Forestry*. 43(4): 322-327.
21. MAJUMDAR, S. AND S. K. SINGH 2021. A note on the occurrence of female plant of *Trichocolea udarii* (Trichocoleaceae- Marchnatiophyta). *Indian J. Forestry*. 43(4): 345-349.
22. MURUGAN, P., C. MURUGAN AND K. KARTHIGEYAN 2021. Typification of twelve names in the genus *Anaphalis* DC. (Asteraceae). *Adansonia* 43(17): 197–204.
23. PAGAG, K. & S.K. BORTHAKUR 2021. *Murdannia triquetra* var. *ahuchawlense*, a new variety of *Murdannia triquetra* from North lakhimpur, Assam. *Phytotaxa* 525(2): 163-166. <https://doi.org/10.11646/phytotaxa525.2.7>

24. RAMANAL, P.V. AND J. SWAMY 2021. Additions to the Grasses (Poaceae) of Andhra Pradesh, India. *Indian Journal of Forestry* 43(3): 236-23.
25. SAHA, P. AND D. SINGH 2021. *Physcomitrium eurystomum* (Bryophyta: Funariaceae) – An addition to Bryoflora of Central India. *Indian J. Forest.* 43 (4): 341–344.
26. SEAL, TAPAN, KAUSIK CHAUDHURI, BASUNDHARA PILLAI 2021. Chromatographic estimation of water soluble vitamin in wild edible plants. *Asian J. Chem.* 33(11), 2845-2850.
27. SINGH, H AND P.A. DHOLE 2021. Comparative study of Ethnomedicinal uses for the Treatment of Cold, Cough and Fever in Odisha, India. *Journal of Non-Timber Forest Products.* 27(4): 202-219.
28. SINGH, LAL JI 2021. *Septemeranthus* (Loranthaceae), a new monotypic genus from the Andaman and Nicobar Islands, India and its relationship with allied genera. *Feddes Repertorium.* 132:193–203.
29. SULAIMAN, M. AND C. MURUGAN 2021. *Dendrobium gopalanii* (Orchidaceae): A new species from Kerala, Western Ghats, India. *Taiwania.* 66(4): 557–560, 2021 (DOI: 10.6165/tai.2021.66.557).
30. SWAMY, J. 2021. Two new Generic Records to the Flora of Telangana from Kinnerasani Wildlife Sanctuary, Telangana, India. *Indian Journal of Forestry* 43(3): 259-262.
31. SWAMY, J., V. JALANDER, L. RASINGAM AND P.V. RAMANA 2021. Two endemic grasses (Poaceae): Additions to the flora of Telangana, India. *International J. Curr. Res. Biosci. Plant Biol.* 8(10): 38-41. <https://doi.org/10.20546/ijcrbp.2021.810.007>
32. YADAV, R.B., KUMAR, A., VERMA, S.K. AND LAL JI SINGH 2021. Floristic Diversity of Angiosperms in Aquatic and Marshy Habitats within Floodplain and Residual Relieves of Ranipur Wildlife Sanctuary, U.P., India. *Plant Archives* 21 (2): 816-823
33. YUGANDHAR, P., SIVARAMAKRISHNA, P., SAVITHRAMMA, N. AND L. J. SINGH 2021. *Cyanotis deccanensis* sp. nov. (Commelinaceae) from Eastern Ghats, Andhra Pradesh, India. *Nordic Journal of Botany.* 39 (10)<https://doi.org/10.1111/njb.03324>