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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 / 1467

Date: 31.12.2021

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 December, 2021.

Department: Botanical Survey of India

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

Scientists of BSI reported eight taxa as new to science, including a new species in the genus *Chroogomphus* (Gomphidiaceae), two new species in the fungal genus *Russula* (Russulaceae, Basidiomycota) viz. *Russula adwanitekae* and *Russula purpureozonata*. Other new taxa include *Indigofera jaisalmerica* (Fabaceae) from the Indian desert, *Dendrophthoe laljii* (Loranthaceae) from Andaman and Nicobar Islands, *Artabotrys sericeus* (Annonaceae) from Tamil Nadu, *Henckelia dasii* and *Henckelia lallanii* (Gesneriaceae) from Arunachal Pradesh. Scientists of BSI also reported recollection and morpho-molecular re-characterization of Indian fungus *Stromatoneurospora phoenix* (Xylariaceae) after 140 years from the Southern Peninsula.

During this month, scientists of BSI completed metadata of 51, 582 herbarium specimens. Also, 10 field/ local tours and 1 Herbarium Consultation Tour were conducted

Important events / programmes organized / attended:

During this month 28 webinars, 4 workshops and 3 special events were organized throughout the different regional centres and units of BSI.

- Various Regional Centres of BSI celebrated Swachh Bharat Harith Bharath programme.
- Regional Centres like BSI-HA WHRC, Solan, BSI-SHRC, Gangtok and BSI-NRC, Dehradun celebrated "International Mountain Day 2021" on 11th December 2021.
- BSI-SHRC, Gangtok participated in the regional workshop cum stake holders meet on "Mainstreaming Landscape approach for conservation & Sustainable development in Khangchendzonga Landscape India" and conducted an exhibition on the same event on 10th December 2021 organised by G B Pant Nat. Institute, Gangtok.
- Dr. A.A. Mao, Director, BSI along with eight senior scientists of BSI participated in the Floral Survey of living root bridge sites for UNESCO World Heritage Site organized by Meghalaya Basin Management Agency, Government of Meghalaya. a tour from 14th - 20th December, 2021.
- As a part of Azadi ka Amrit Mahotsav programme, BSI, DRC, Hyderabad organised one day seminar on 'Endangered Plant species and their conservation' at RBVRR Womens college auditorium in collaboration with Department of Botany, and Food & Nutrition, Raja Bahadur Venkata Rama Reddy Women's College, Narayanaguda, Hyderabad (RBVRR) on 30th November 2021. A total of 400 students from different disciplines participated in the program.
- Scientists & Staff of AJC Bose Indian Botanic Garden attended "National Webinar on Ethno botany in Human Welfare" by NWEHW-2021 on 8th December, 2021.
- BSI, APRC, Itanagar organized cleanliness drive on 6th December, 2021 in collaboration with GBPNHIE, Itanagar on the occasion of Swachhta Pakhwada.
- BSI, WRC, Pune celebrated 66th Foundation day programme on 12th December 2021.
- BSI, ERC, Shillong attended two Webinar on "Hybrid Rice Seed Production" and "Investing for Impact: Towards Healthier and Sustainable Diets through Research" organized by International Rice Research Institute, Philippines on 01st December, 2021 and 10th December, 2021 respectively.

Important scientific publications:

During this month 24 research publications have been published by BSI scientists in various International and National research journals (Annexure I).

BSI Website : 1.5 lakhs visited

B. Important policy matter is held up on account of prolonged inter-ministerial consultation: NIL

2. Compliance of COS decisions: Nothing pending
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 implementation of e-governance: PFMS, CPGRAMS, e-Publications of *Nelumbo*, procurement through GEM Portal and digital archives etc. have already been implemented.
6. Details of cases in which ACC directions have not been complied with: NIL
7. Status of Public grievances:

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

8. 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,

A. A. MAO
31/12/2021

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



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List of Publications for December, 2021**Research Papers published : 24**

1. BENNIAMIN, A., M. SHUNMUGA SUNDARI AND D. JESUBALAN 2021. Threatened Pteridophytes of Western Ghats of Karnataka. *Indian Fern J.* 38: 208-221
2. FAROOQUI, ANJUM, RAJESH AGNIHOTRI, SALMAN KHAN, S K S GAHLAUD AND SHARIEF. M. U. 2021. Temporal Variability in Carbon and Nitrogen stable Isotopes of *Strobilanthes kunthianus* leaf: Its photosynthetic efficacy and water use efficiency in a warming climate. *Journal of Earth System Science* : <https://doi.org/10.1007/s12040-021-01737-5>.
3. ARIGELA R.K., P. HARIKRISHNĀ AND N. SIDDABATHULA 2021. Flower color variations in *Iphigenia indica* (L.) Kunth – Colchicaceae. *Species*, 22(70): 417-419.
4. ARIGELA, R.K., R.K. SINGH, N. SIDDABATHULA, K. PRASAD AND P.B.S. YADAV 2021. Botanical view of the Baya Weaver's choices in India. *Species* 22(70): 420–430.
5. BANDYOPADHYAY, S., G. KRISHNA ANDA. BHATTACHARJEE 2021. (117) Proposal to add a new paragraph to Recommendation 40A encouraging the publication of accessory types and type illustrations. *Taxon*: 70(6): 1390–1391.
6. BHATTACHARJEE, A., S. BANDYOPADHYAY AND D.K. AGRAWALA 2021. (110) Proposal to add a new Note to Article 9 to clarify the status of duplicates of types. *Taxon*: 70(6): 1386.
7. DAS K., A. VIZZINI, A. PARIHAR, M.E. HEMBROM AND A. GHOSH 2021. A new species in the genus *Chroogomphus* (Gomphidiaceae) from India. *Phytotaxa* 528(2): 084–092.
8. DASH, S.S., S. LAHIRI AND A.A. MAO 2021. An enumeration of the flowering plants of Kyongnosla Alpine Sanctuary in Eastern Sikkim, India. *Journal of Threatened Taxa* 13(13) : 20098-20117
9. DUTTA PRAMANIK, DEBASMITA, 2021. Herbal medicine- Anatural cure to Diabetes (an Overview). *Int. J. Advanced Res. Biol. Sci.* 8(10): 96-140.
10. GHOSH, A., K. DAS AND B. BUYCK 2021. Two new species in the *Russula* (Russulaceae, Basidiomycota) crown clade from Indian Himalaya. *Eur. J. Taxon.* 782: 157-172.
11. GOGOI, R, W.ADAMOWSKI, N.SHERPA, A.SHARMA & S. BORAH 2021. Misinterpretations and plagiarism in a publication about Himalayan Impatiens: polemics with the paper of Singh R.K. et al. *Biodiv. Res. Conserv.* 63: 1-30, 2021
12. GUPUTA, P. 2021. First Report of diversity of cyanobacteria of Broknes peninsula of Larsemann Hills, East Antarctica. *Cryptogamie Algologie* 42(15): 241 - 251.
13. KUMAR AMBRISH, RAJNI KANT, KULDIP SINGH DOGRA, K. CHANDER SEKHAR, KAPIL KHARKWAL AND SUDHANSHU SHEKHAR DASH (2021). Diversity of threatened plants and

conservation efforts in Great Himalayan National Park, Himachal Pradesh, Western Himalaya, *Indian Forester*, 147 (12): 1172-1175.

14. MAITY, R. AND S.S. DASH 2021. Proposal to amend Article 23.2 and Recommendation 23A.3 to eliminate arbitrary formation of, and future use of hyphens in, specific epithets. *Taxon* 70(6): 1388–1389.
15. MURUGAN, P., C. MURUGAN AND K. KARTHIGEYAN 2021. Notes on the identity and taxonomy of *Ixora cuneifolia* and *I. notoniana* and typification of three names in *Ixora*. *Gard. Bull. Singapore* 73(2): 481 – 487.
16. NAIK, MUDAVATH CHENNAKESAVULU AND LAL JI SINGH 2020. *Dentella cylindrica* sp. nov. (Rubiaceae: Tribe Spermacoceae) from Andaman and Nicobar Islands, India. *Indian Journal of Forestry* 43(4): 308-314
17. PATIL, S., R. PATIL, V. K. RAWAT AND K. RAJPUT 2021. *Christensenia aesculifolia* : Its Diversity, Distribution, conservation status and molecular Identification from India. *Fern Gaz.* 21(6): 270-276.
18. PICHAI, S, M.E. HEMBROM, A. GHOSH, P. PALANI AND A.V. KISKU (2021) Recollection after 140 years and morpho-molecular re-characterization of Indian *Stromatoneurospora phoenix* (Kunze) S.C. Jong & E.E. Davis (Xylariaceae). *Tropical Plant Research* 8(2): 131–137.
19. PUROHIT C.S. AND R.N. KULLOLI 2021. *Indigofera jaisalmerica* sp. nov. (Fabaceae): A new species from Indian desert. *Journal of Asia Pacific Biodiversity* 14(4): 628 – 635. <https://doi.org/10.1016/j.japb.2021.09.006>
20. SINGH R.K., ARIGELA R.K. AND REDDY C.S. 2021. Identity of *Polanisia angulata* (Cleomaceae) and typification of two Linnaean names and three Linnaeus filius' names in *Cleome*. *Annales Botanici Fennici* 59: 1-8.
21. SIVARAMAKRISHNA, PASUPULETI, YUGANDHAR PULICHERLA AND GAUTAM ANUJ EKKA 2021. A new species *Dendrophthoe laljii* (Loranthaceae) infesting *Artocarpus heterophyllus* Lam. (Moraceae) in Andaman and Nicobar Islands, India. *Journal of Asia-Pacific Biodiversity* 14(3): 452 – 459
22. SUJANA, K.A. AND R. G. VADHYAR. 2021. A New species of *Artabotrys* (Annonaceae) from southern Western Ghats, India. *Gard. Bull. Singapore.* 73(2): 461–468.
23. T.A.M. JAGADEESH RAM AND G. P. SINHA Additional Lichen Records from the Andaman and Nicobar Islands – 6. *Indian Journal of Forestry* 43(4): 353-357.
24. TARAM M., BORAH D., SINGH R.K. AND TAG H. 2021. Two new species of *Henckelia* (Gesneriaceae) from the Eastern Himalayan state Arunachal Pradesh, India. *Feddes Repertorium* 132(4): 364-371.