

DO. No.: BSI – 8/1/PA/2019

Date: 04.04.2022

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 **March, 2022**.

Department: Botanical Survey of India

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

Scientists of BSI reported **five taxa as new to science** viz. *Lysionotus metuonensis* (Gesneriaceae) and *Impatiens pasighatensis* (Balsaminaceae) from Arunachal Pradesh and *Pancreatum venkaiihii* (Amaryllidaceae), *Glycosmis albicarpa* (Rutaceae) and *Heteroconium tulsense* (Antennariaceae) from the Western Ghats. Besides, Scientists of BSI have also reported **nine taxa as new additions**, of which two taxa viz. *Tribulus ochroleucus* and *Xanthosoma robustum* as new additions to the flora of India, whereas seven taxa viz., *Pavetta breviflora*., *Wendlandia thyrsoidea*, *Leucas diffusa*, *Euphorbia senguptae*, *Euphorbia deccanensis* var. *nallamalayana*, *Phyllanthus narayanswamii*, *Exacum petiolare* as new distributional record to various states.

In addition, BSI scientists conducted **13 field/ local tours** and collected **708 field nos.** of specimens. Besides BSI completed metadata of **14,876** herbarium specimens. During the month, **1,20,201** visitors referred BSI website.

Important events / programmes organized / attended:

- Dr. A.A. Mao, Director, BSI attended as Guest of honour and delivered T.N. Khoshoo Memorial lecture in the “*International conference cum workshop on agrotechnology, value addition, global trade and sustainability of medicinal/neutraceutical orchids & orchid show*”, organized by The Orchid Society of India (TOSI), in association with BSI, Kolkata; Dr YSR Horticultural University, Venkataramannagudem, Andhra Pradesh & ICAR-NRC for Orchids, Pakyong (Sikkim) from 25 - 27 March, 2022. He also received *T.N. Khoshoo Memorial Award* by TOSI. Besides, he also interacted with the students of Adikavi Narayana Univ. Rajmundry and Osmania Univ. Hyderabad.
- Dr. A.A. Mao, Director, BSI attended “*Science Leader Conclave*”, organized by the CSIR- Indian Institute of Chemical Technology (IICT), Hyderabad on 26 & 27 March, 2022.
- Botanical Survey of India as *National Mission on Himalayan Studies* (NMHS) project partner organized a “*National seminar on Invasive Alien Species: as undesirable guest to the natural ecosystem*” on 30th March, 2022 at BSI-CNH, Howrah in hybrid mode. Around 260 participants from all over India attended this seminar. Dr. J.T. Mathew, PCCF & Head of Forest Forces, Govt. of WB; Dr. Mark Watson, Head of major flora, Royal Botanic Garden, Edinburgh, Scotland, and Dr. (Mrs.) D. Banerjee, Director, ZSI Kolkata, Prof. Anzar A. Khurroo, Univ. of Kashmir graced the events and delivered the talks. Dr. S.S. Dash, Scientist ‘E’ & Incharge, Tech. Sect. HQ convened the seminar. Dr. Mark Watson, Head of major flora, Royal Botanic Garden, Edinburgh, Scotland also delivered a special talk on “*Nathaniel Wallich: his catalogue and correspondence*” on 31st March, 2022 at BSI-CNH, Howrah
- Dr. S.S. Dash, Scientist ‘E’ & Incharge, Tech. Sect. HQ and Dr. A. Benniamin, Scientist ‘E’ & Head, WRC, Pune attended and delivered invited lectures in the “*XVI Conference of the Indian Fern Society and International Symposium on Research in Pteridology: Priorities and Challenges* at Calicut University from 17-19th March 2022.
- BSI ENVIS RP organized a workshop on ‘*Herbarium Methodology and Plant Nomenclature*’ at P.G. Dept. of Botany, Ramakrishna Mission Vivekananda Centenary College, Rahara, Kolkata on 15 & 16 March, 2022. Around 135 students and research scholars from various colleges attended and benefitted from the workshop.
- BSI observed World Water Day on 22 March 2022 and pledged towards water conservation.

Important scientific publications:

During this month **24 research publications** and **1 book** have been published by BSI scientists (*Annexure I*).

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

- Important policy matter is held up on account of prolonged inter-ministerial consultation: NIL**
- 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, e-floraindia, 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
1	2

- 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

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



List of Publications for March, 2022**Research Papers published: 24**

1. ARUMUGAM, S. AND S. VIVEK 2022. Angiospermic Diversity of Kurunthamalai Hilllock, Karamadai, Coimbatore District, Tamil Nadu, India. *Species*. 23(71), 23-39.
2. BANDYOPADHYAY, S. AND ANAND KUMAR 2021. Typification of *Bauhinia didyma* H.Y. Chen, the basionym of *Cheniella didyma* (H.Y.Chen) R. Clark & Mackinder (Leguminosae: Cercidoideae). *Nelumbo* 63(2): 18–19. .
3. BEHARA D., S.S. JENA, B.T. PANDA, H.N. SUBUDHI AND S.P. PANDA 2022. *Eria meghasaniensis* (S. Misra) S. Misra, an endemic and endangered Orchid of Similipal Biosphere Reserve, Odisha India. *Eco. Env. & Cons.* 28: S294-S299 (Suppl. Issue).
4. BORAH D., SINGH R.K. AND TARAM, M. 2022. *Impatiens pasighatensis* (Balsaminaceae), a new species from Arunachal Pradesh, Northeast India. *Indian Forester* 148(2): 233-235.
5. BUYCK B., G. EYSSARTIER, F. ARMADA, A. CORRALES, M. E. HEMBROM, W. ROSSI, J.-M. BELLANGER, K. DAS, B. DIMA, A. GHOSH, M. E. N OORDELOOS, A. PARIHAR, I. KRISAI-GREILHUBER, M. LEONARDI, C. MANZ, M. VERA, J. VILA, K. A DAMČÍKOVÁ, E. BIZIO, M. CABOŇ, F. HAMPE, M. PIEPENBRING AND S. ADAMČÍK 2022. Fungal Biodiversity Profiles 111-120. *Cryptogamie Mycologie* 43 (2): 23–61. <https://doi.org/10.5252/cryptogamie-mycologie2022v43a2>
6. DUBEY, RASHMI AND AMIT D. PANDEY 2022. *Heteroconium tulsense* (Antennulariellaceae): a novel microfungus from Sanjay Gandhi National Park, Maharashtra, India. *Phytotaxa* 536(2):190-196.
7. K. CHOWLU. A New Subspecies of *Lysionotus metuonensis* (Gesneriaceae) from Arunachal Pradesh, India. *Japanese J. Bot.* 97 (2): 99-104. 2022.
8. MAHESH, Y., L. RASINGAM AND M.V. RAMANA 2021. Note on the distribution of *Stemodia verticillata* (Plantaginaceae) in Eastern Ghats, India. *Indian J. Forestry*, 44(2):77-79.
9. MAHESH, Y., L. RASINGAM, AND M.V. RAMANA 2021. Note on the distribution of *Stemodia verticillata* (Plantaginaceae) in Eastern Ghats, India. *Indian J. Forestry* 44(2): 77-79. <https://doi.org/10.54207/bsmps1000-2022-O5J788>
10. MANIKANDAN, R. AND W. ARISDASON. Biography: Dr. P. Lakshminarasimhan (28.08.1959–15.07.2020) in *Phytotaxonomy* 19: 169–170.
11. NETHAJI, K., Y. MAHESH, D. ASHOK AND M. VENKAT RAMANA 2021. Seed germination in CITES listed *Cycas beddomei* and its bearing in its conservation. *Nelumbo* 63(2):54-57.
12. P. MURUGAN, V. RAVICHANDRAN AND C. MURUGAN 2022. Two new synonyms in the genus *Indigofera* (Leguminosae: Papilionoideae). *Indian J. Forestry* 44(2): 68-71.
13. PANWAR G. S., BHAVANA JOSHI AND ROHIT JOSHI 2022. Axenic rhizome culture and clonal fidelity assessment of *Eulophia dabia* (D. Don) Hochr: an endangered terrestrial orchid species. *In vitro Cellular and Developmental Biology-Plant*. <https://doi.org/10.1007/s11627-022-10258-9>
14. PRAMEELA, R. AND J. SWAMY 2021. *Xanthosoma robustum* (Araceae): An addition to the flora of India. *Indian J. Forestry* 44(2): 62 64.
15. PRAMEELA, R., J. PRAKASA RAO, S.B. PADAL AND M. SANKARA RAO 2022. *Pancratium venkaiahii* (Amaryllidaceae). A new Species from Eastern Ghats of India. *J. Threatned Taxa* 14(3): 20801-20804.
16. RAMAKRISHNA, A., S. AKKULANNA, M. UDAY KUMAR, R.K. ARIGELA, B. SADASIVAIAH AND N.B. RAO 2022. Four endemic Euphorbiaceae taxa additions to Telangana state, India. *Species* 23(71), 112 – 117.

17. RASINGAM, L. & J. SWAMY 2021. Four additions to the flora of Telangana state, India. *Indian J. Forestry* 44(2): 83-86.
18. RAVIKUMAR, K., U.K. TIWARI, B. NATESAN AND N.K. ARUN 2022. *Tribulus ochroleucus* (Maire) Ozenda & Quezel (Zygophyllaceae) - a new addition to the flora of India. *J. Threatened Taxa*. 14, 3 (Mar. 2022), 20805–20807.
19. SAMPATH KUMAR, K AND S. ARUMUGAM 2022. Taxonomy, Nomenclature and Lectotypifications of *Photinia lindelyana* Wight & Arn. (Rosaceae): an Endemic to Nilgiri Biosphere Reserve, Southern Western Ghats, India. *Indian Forester*. 148 (1): 115-117
20. SUJANA, K.A. AND R. G. VADHYAR 2022. *Glycosmis albicarpa* (Rutaceae: Clauseneae), a new species from southern western ghats, India. *Nordic J. Botany* 2022: e03501. (doi: 10.1111/njb.03501)
21. SWAMY, J. & M. ZEESHAN 2021. Note on the distribution of *Microchloa kunthii* (Poaceae: Chloridoideae) in India. *Indian J. Forestry* 44(2): 80-82.
22. SWAMY, J. & P.V. RAMANA 2021. *Paspalum vaginatum* (Poaceae): An addition to the flora of Andhra Pradesh, India. *Indian J. Forestry* 44(2):74 76.
23. SWAMY, J., L. RASINGAM, V. JALANDER AND P.V. RAMANA 2022. *Exacum petiolare* Griseb. (Gentianaceae): A New Distributional Record to the Flora of Telangana, India. *Int. J. Recent. Sci. Res.* 13(03): 516-517.
24. VIVEK, S. AND M. PALANISAMY 2021. Significance of Seaweed Liquid Fertilizer (SLF) on Vegetable Crops of *Solanum lycopersicum* L. & *Abelmoschus esculentus* (L.) Moench. *Gujarat Agricultural Universities Research JOURNAL*. 46(3): 108–112

BOOK: 1

1. GUPTA, R.K. 2021. *Algal Flora of Jharkhand*. Botanical Survey of India, Kolkata. 396 pp.