

DiversityIndia Meets: Pioneering citizen science through collaborative data mobilization

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Abstract

[DiversityIndia](#), founded in 2001, is an online community dedicated to promoting meaningful discussions and facilitating the exchange of diverse perspectives on lesser-known taxonomic groups, including butterflies, moths, dragonflies, spiders, and more. The core idea behind DiversityIndia is to establish a network of like-minded individuals who possess a deep passion for these subjects and actively participate in various aspects of biodiversity observation and research.

Initially, the taxonomic focus of DiversityIndia centered around butterflies, which led to the creation of the ButterflyIndia Yahoo email group. The group quickly gained recognition for its significant contributions in sharing valuable insights about butterflies, including information about their habitats and lesser-known species. ButterflyIndia also played a vital role in facilitating connections among scientists and researchers who were dedicated to studying Lepidoptera. As a result of its collaborative efforts, the group actively contributed to major book projects and web portals, further enhancing the knowledge and resources available to the butterfly research community. As time progressed, the group expanded its presence to include various social media platforms like [Orkut](#), [Facebook](#), [Flickr](#) and more, thereby expanding its influence and reach.

The realization of a significant need for empirical research on butterflies, requiring the involvement of both specialists and enthusiasts across diverse habitats, led to the first ButterflyIndia Meet in 2004 at Shendurney, Kerala. This pioneering concept garnered immense success, attracting participants from diverse regions of the country and backgrounds. Since then, several ButterflyIndia Meets have been organized, resulting in the documentation of numerous butterfly species. Building upon this success, DragonflyIndia and SpiderIndia were established with similar objectives and have successfully coordinated multiple gatherings (Fig. 1).

One of the most notable DiversityIndia Meets occurred in April 2022, held in Sundarbans, West Bengal. This particular meet marked a significant milestone as the documented dataset, comprising information on all taxonomic groups observed during the event, was published through the Global Biodiversity Information Facility ([GBIF](#)) (Roy et al. 2022). This publication allowed for wider accessibility and utilization of the valuable biodiversity data collected during the meet.

In addition to the Sundarbans meet, ongoing efforts are currently underway to gather occurrence data from all the previous meetings conducted by DiversityIndia (Table 1). The aim is to compile and mobilize this data on GBIF as datasets, involving active participation from the members who attended these meetings. This endeavor seeks to maximize the availability and usefulness of the biodiversity information gathered through the various DiversityIndia Meets over time.

According to the published records so far (Global Biodiversity Information Facility 2023), there are 1663 documented occurrences from 859 taxa belonging to 14 taxonomic classes, covering various biogeographies in India. These records provide valuable insights into the biodiversity of the country. DiversityIndia has indeed played a pioneering role in online citizen science in India, and its origins can be traced back to the original Yahoo groups. By bringing together specialists and enthusiasts alike, this community has successfully contributed to the comprehensive documentation and understanding of India's rich biodiversity. The collective efforts of the members serve as a testament to the enduring impact of citizen science in pushing the boundaries of our knowledge regarding the natural world.

Keywords

India, community science, GBIF, data mobilization

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Conflicts of interest

The authors have declared that no competing interests exist.

References

- Baidya S, Biswas S, Paul A, Datta S, Barman N, Roy A, Barve V (2023) Second DiversityIndia Meet (2023) held at Dibang Valley, Arunachal Pradesh, India. 1.2. Nature Mates-Nature Club. Release date: 2023-7-18. URL: <https://doi.org/10.15468/ghh6y9>
- Das RP, Karve P, Roy AB, Chowdhury P, Barman N, Barve V (2023a) ButterflyIndia Meet - 2008 held at Chakrata, Uttarakhand, India. Nature Mates-Nature Club. Occurrence dataset <https://doi.org/10.15468/na2g4r>
- Das RP, Patwardhan A, Karve P, Sarkar S, Roy RB, Roy AB, Barve V, Chowdhury P, Barman N (2023b) ButterflyIndia Meet at Samsing Jayanti, West Bengal, 2008. Version 1 (6). <https://doi.org/10.15468/y2sact>
- Dawn P, Chowdhury P, Barman N, Basu-Roy A, Barve V (2023) DragonflyIndia Meet - 2016 held at Gorumara National Park and Samsing, West Bengal, India. Version 1.1. Nature Mates-Nature Club. Occurrence dataset <https://doi.org/10.15468/b2wg85>
- Global Biodiversity Information Facility (2023) GBIF Occurrence Download. Release date: 2023-7-17. URL: <https://doi.org/10.15468/dl.aq9bqb>
- Jadhav-Kulkarni N., Barman N., Agarwal A., Basu Roy A., Barve V., Kulkarni S. (2023) 5th SpiderIndia Meet 2021. Version 1.2. Nature Mates-Nature Club. Occurrence dataset <https://doi.org/10.15468/s9nqqf>
- Patwardhan A, Barman N, Roy AB, Barve V (2023) ButterflyIndia Meet- 2006, held at Jairampur, Arunachal Pradesh. Nature Mates-Nature Club <https://doi.org/10.15468/zuaat5>
- Roy RB, Raha A, Mazumdar A, Agarwal A, Roychaudhury D, Das N, Barman N, Sengupta N, Dawn P, Chowdhury P, Baidya S, Sinha S, Sarkar S, Biswas S, Vattakaven T, Roy AB, Barve V (2022) First DiversityIndia Meet (2022) held at Sundarbans, West Bengal, India. 1.0. Global Biodiversity Information Facility. Release date: 2022-12-05. URL: <https://doi.org/10.15468/ydut5r>

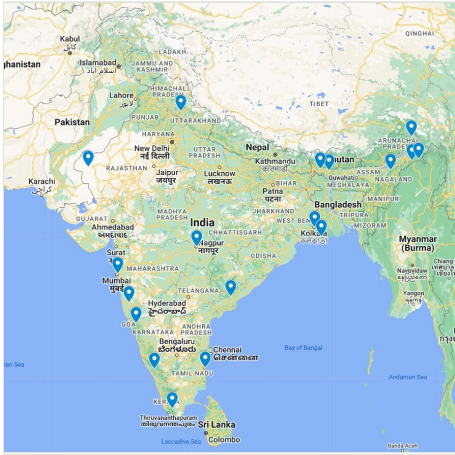


Figure 1.
DiversityIndia Meet locations.

Table 1.

Details of Meets organised so far:

Year	Location	Focal Taxa	Dataset citation
2004	Shendurney Wildlife Sanctuary, Kerala	Butterfly	
2004	Conservation Education Center, BNHS, Mumbai, Maharashtra	Butterfly	
2005	Aralam Wildlife Sanctuary, Kerala	Butterfly	
2006	Jairampur, Arunachal Pradesh	Butterfly	Patwardhan et al. 2023
2007	Near Rajahmundry, Andhra Pradesh	Butterfly	
2008	Buxa Tiger Reserve and Samsing, West Bengal	Butterfly	Das et al. 2023b
2008	Chakrata, Uttarakhand	Butterfly	Das et al. 2023a
2009	Bondla Wildlife Sanctuary, Goa	Butterfly	
2010	Namdapha Tiger Reserve, Arunachal Pradesh	Butterfly	
2011	South Garo hills, Meghalaya	Butterfly	
2013	Chilapata Forest, West Bengal	Butterfly	
2014	Nagpur, Maharashtra	Odonata	
2015	Thattekad, Kerala	Odonata	
2016	Gorumara National park, West Bengal	Odonata	Dawn et al. 2023
2016	Kolkata, West Bengal	Spider	
2017	Goa	Odonata	
2018	Hoolongapar Gibbon Wildlife Sanctuary, Assam	Spider	
2018	Amba Ghat, Maharashtra	Spider	
2019	Buxa Tiger Reserve, West Bengal	Butterfly	
2019	Castle Rock, Karnataka	Spider	
2021	Auroville, Tamil Nadu	Spider	Jadhav-Kulkarni N. et al. 2023
2022	Sundarbans, West Bengal	All flora and fauna	Roy et al. 2022
2023	Sam, Rajasthan	Spider	
2023	Dibang Wildlife Sanctuary, Arunachal Pradesh	All flora and fauna	Baidya et al. 2023