

## SUMMARY

The outcome of the present work, entitled "*Floristic Diversity of Chirang Reserve Forest of Bodoland Territorial Region in Assam with special reference to Threatened and Endemic Plants*" is the result of research work carried out during the period 2018–2022. The details of the outcomes are as follows—

1. The study of the Chirang Reserve Forest shows a diverse habit and habitat with different patterns of forests. It is one of the most biodiversity rich areas, showing a great diversity of floristic composition with a total of 728 plant taxa under 492 genera belonging to 138 families, representing 49.2% of the BTR flora. Of these, Angiosperms comprises by 676 species, 2 subspecies, and 12 varieties under 463 genera of 123 families, representing 17.6% of Assam flora and 48.8% of BTR flora. Gymnosperms represent 3 species under 3 genera of 3 families; and Pteridophytes comprise of 35 species under 26 genera of 12 families.
2. Dicotyledons comprise 518 species, 2 subspecies, and 8 varieties under 358 genera belonging to 104 families representing 18.8% and 50.8% dicot flora of Assam and BTR, respectively. Monocotyledons comprise 158 species and 4 varieties under 105 genera of 19 families representing 14.6% and 43.05% of the monocot flora of Assam and BTR, respectively.
3. Among the families, Orchidaceae is the dominant with 77 taxa, followed by Fabaceae with 36, Phyllanthaceae 31, Moraceae with 30, and Poaceae with 25 taxa, Euphorbiaceae with 24, Apocynaceae with 24, Rubiaceae with 23, Asteraceae with 20, and Acanthaceae with 20 taxa.
4. Among the genera, *Ficus* is the dominant with 24 taxa, followed by *Dendrobium* with 14 spp., *Phyllanthus* and *Clerodendrum* with 8 spp. each, *Glochidion*, *Bulbophyllum*, and *Syzygium* with 7 spp. each, *Piper* and *Elaeocarpus* with 6 spp. each, and *Litsea* with 5 spp.

5. Pteridophytes comprise 35 species in 26 genera belonging to 12 families. It consists of 24 terrestrial, followed by 8 epiphytes, and 3 aquatic species. Among the families, Polypodiaceae is the dominant with 9 species followed by Aspleniaceae with 8 species. Among the genera, *Pteris* is the dominant with 4 taxa.
6. The species, *Sarcopyramis subramanii* belonging to Melastomataceae has been rediscovered after the type collection in 1926, in the study area.
7. A total of eight rare plant species have been recorded as new distribution records for Assam state—*Agapetes bhutanica*, *Bulbophyllum parviflorum*, *Bulbophyllum tenuifolium*, *Hoya oreogena*, *Peliosanthes bipiniana*, *Sarcopyramis subramanii*, *Strobilanthes anisophylla*, and *Strobilanthes sabineana*.
8. A total of 210 species were recorded as a new record for the flora of Bodoland Territorial Region. Among the families, Orchidaceae is the highest with 62 species as new record to the flora of BTR.
9. A total of 51 species were detected under threatened categories. Of these, 39 species are Rare (R), 4 are Endangered (E), 3 are Critically Endangered (CR), 2 are Vulnerable (VU), 2 are Least Concern (LC), and 1 is Data Deficient (DD). Among the families, Orchidaceae shows the most threatened species with 32.
10. As primitive plants, 21 species under 16 genera belonging to 10 families are recognised. The primitive families are Annonaceae, Chloranthaceae, Gnetaceae, Lauraceae, Magnoliaceae, Menispermaceae, Myristicaceae, Podocarpaceae, Saururaceae, and Schisandraceae. The primitive genera found in the study area are *Actinodaphne*, *Chloranthus*, *Cinnamomum*, *Cryptocarya*, *Gnetum*, *Houttuynia*, *Kadsura*, *Knema*, *Litsea*, *Machilus*, *Magnolia*, *Milusa*, *Monoon*, *Phoebe*, *Podocarpus*, and *Pycnarrhena*.
11. As monotypic genera, 13 genera belonging to 12 families are identified in the study area. The identified genera are *Abroma*, *Arundina*, *Cannabis*, *Gynocardia*, *Houttuynia*, *Hyptianthera*, *Natsiatum*, *Oroxylum*, *Polyura*, *Pongamia*, *Ricinus*, *Tetrameles*, and *Thysanolaena*.

12. A total of 13 rare plant species were recorded as endemic to the region— *Adinandra griffithii*, *Aristolochia assamica*, *Bulbophyllum gracilipes*, *Garcinia assamica*, *Huperzia vernicosa*, *Ixora goalparensis*, *Litsea meghalayensis*, *Peliosanthes bipiniana*, *Pinalia connata*, *Polyura geminata*, *Pomatocalpa armigerum*, *Sarcopyramis subramanii*, and *Vrydagzynea viridiflora*.
11. A total of 53 species in 46 genera belonging to 23 families have been recorded as exotic species.
12. A total of 174 species of 145 genera belonging to 79 families related to its traditional knowledge. Out of these, 99 species are used as medicinal plants, 57 species used as vegetables or other foods, 44 species are as edible fruits and 7 species as fish poisoning.