CHAPTER-VII

SUMMARY AND CONCLUSION

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7.1 SUMMARY

Studies on Monocot flora of Udalguri district, BTAD, Assam, with special reference to ethnobotany of Bodo and Rabha.

The following points have been summarized from the whole thesis:

0. The present study was undertaken during **2014-2017** to record and document on Monocot flora of ethnobotany of Bodo and Rabha community.
1. Morphologically, Monocot flora is a Angiospermic (flowering) plants having single cotyledon, fibrous roots, parallel leaf venation and trimerous flowers.
2. Ethnobotany is not just a record of plant use, but the traditional impressions of the total environment revealed through custom and ritual.
3. Reviewed literature includes past botanical explorations of India, North East India, Assam and Bodoland Territorial Council (BTC) area.
4. The study had been undertaken all the seasons and information was recorded on vernacular names (Bodo, Rabha and Assamese), habitat, flowering and fruiting time. Photographs were also taken on habits, habitats of some important and interesting species, rare and scarce species of the Monocot plants.
5. For the pressing, drying and preparation of herbarium specimens of the collected sample has been poisoned with standared solution of Mercuric Cloride ($HgCl_2$) in absolute alcohol (1 gm in 100 cc) and mounted on 42×28 cm sized herbarium sheets with the help of high quality glue fevicol.
6. The identifications of the specimens were confirmed by consulting the herbarium materials of Kanjilal Herbarium (Old Assam), Botanical Survey of India (BSI), Eastern Regional Centre (ERC), Woodlands, Laitumkhrah, Shillong-793003, Meghalaya, India.

7. Collected Monocot plant specimen were deposited as herbarium species in the Herbarium of Botany Department, University of Science and Technology, Meghalaya (USTM), Meghalaya-793101, India.
8. A total of **228** Monocot species belonging to **133** genera included in **30** families are enumerated.
9. Monocot families have been arranged according to Bentham and Hooker's (1862-1883) system of classification with slight modification incorporating splitted families as accepted internationally.
10. Artificial keys for Monocot genera and Monocot species are like wise given under their respective Monocot families and genera if the number of genera and species exeedsthan one.
11. Line drawings of **61**-plates Monocot species from each family are provided.
12. For each and every Monocot species, the accepted names are included with their original citations. Citation of various important references are given. As possible vernacular names are provided which is followed by a brief description of the species and habitat.
13. With special reference to ethnobotany of Bodos and Rabhas, **44** plants with medicinal value, **11** plants with ritual activities, **07** plants in ethno veterinary or ethno livestocks, where **80** plants with various economic utilities of Monocot plants are recorded.
14. **11**-Exotic Monocot plants are recorded.
15. **07**-Endemic Monocot taxa are recorded.
16. **19**-RET-Monocot taxa are recorded.
17. **Rare** species are not recorded.
18. **12**-Endangered species are recorded.
19. **02**-Threatened species are recorded.
20. **04**-Vulnerable species are recorded.
21. **01**-Critically Endangered are also recorded.

7.2 CONCLUSION

The Udalguri district is an area of BTAD, Assam, North-East India, located in the North Bank of River Brahmaputra by the foot hills of Bhutan and State of Arunachal Pradesh. The population chiefly is tribal, the majority being Bodo and Rabha peoples interspersed on all villages. The use of about 143 ethnobotanical Monocot plants in 30 families, though still is in vogue for treatments of ailments in humans and animals, the traditional wisdom is definitely being on the wane among the younger generation.

The number of human ailments amounts to 44 kinds for which medicinal Monocot plants are used. The native practitioners, known as “Ojha” or “Kobiraj” or “Bej”, also possess sound knowledge of the practices, but they are not frequented by villagers as in the past. There is a likelihood that their traditional practice would eventually vanish in the near future. This situation necessarily warrants a scientific validation of the Udalguri district insight, mode of preparation of drugs and their administration. The several taboos and beliefs need to be shifted to make traditional wisdom objective. Bodo and Rabha peoples are well endowed in knowledge about the distributional status of ethnobotanical Monocot plants. However, the destructive mode of collecting ethnobotanical Monocot plants from wild has to be discouraged by proper motivation.

There is a dire need to promote *ex-situ* (off-site) conservation practices. A blending of traditional wisdom and modern scientific methods of conservation and cultivation will enable the appropriate harvest of such Monocot plants. There is also a need to list out the important ethno medicinal monocot plants, prioritise them and develop suitable cultivation techniques. A system of rewarding traditional wisdom, if formulated, would motive the tribal’s to launch into cultivation of ethnobotanical species leading to sustainable livelihoods.

The influence of monoculture, network of roads, population explosion, industrialization, loss of potential habitat, climatological changes, over collection ofmedicinal Monocot plants have definitely alter the vegetation pattern of the area. The unchecked destruction of forests as well as commercial exploitation of medicinal

plants rapidly changing the ecosystem arealso responsible for the changing of the floristic pattern of this region and causes the scarcity of many Monocot species.

On the basis of the present exploration and field studies, it is found that some of the extremely rare, endangered Monocot species are due to over exploitations and these plants need a strong conservation and protection management. The RET (Rare, Endangered and Threatened)-Monocot plants which have been identified by IUCN (International Union for Conservation of Nature and Natural Resources) are to be conserved by both *in-situ* (on-site) and *ex-situ* (off-site) method.

The present work investigation has amply been justified for the completion of a comprehensive literature on the Monocot flora of Udalguri district based on extensive taxonomic studies and analysis of plants leading to the ethnobotany and its importance will be of immense benefit not only for the people of the area in particular but also for the entire population of Assam in general. Moreover, the taxonomists of Assam in particular will be greatly benefited from such a study of floristic composition of this region. The great scholarly volumes of *Flora of Assam* which is still incomplete will be enriched to a great extent, particularly for this part of Assam.

Utmost effort towards the contribution of the Monocot flora of Udalguri district, BTAD, Assam, India, has been made. This piece of work will be useful while revisionary work of flora of neighbouring districts or states in particular and *Flora of India* in general. All the results are well documented and presented in the thesis supported with sufficient photographic evidences and latest references. This thesis will be of immense help for those working on biodiversity, ecology, taxonomy and ethnobotanical aspects as well as for future researcher.