SUMMARY

1. The present work ‘Studies on Angiospermic Flora of Siju Wildlife Sanctuary, South Garo Hills District of Meghalaya, India with reference to taxonomic and economic utilization’ is an outcome of the research work undertaken during the period of 2010-2012. Siju Wildlife Sanctuary is located in South Garo Hills District of Meghalaya. It lies between 25°25' N to 25°27' N latitudes and 90°30'E to 90°45'E longitude and spreads over an area of about 5.2 sq. kms.

2. The study area was declared as ‘Reserve Forest’ on 8th May 1906, by the then Lieutenant-Governor of East Bengal and Assam vide Notification No. 3920 F, and amended by Governor in council vide notification No. 2323 dated 26th July 1932. Later, on 30th March 1979, with an area of 5.18 sq. kms. The area was declared as ‘Wildlife Sanctuary’ vid Govt. notification No. MFG. 66/4. In 1996 Siju WLS has been identified as elephant concentration zone by William A. C. and A. T. C. Johnsing in their report “A status survey of elephants (Elephas maximus), their habits and assessment of elephant-human conflict in Garo Hills, Meghalaya.

3. Thus Siju WLS, though of a small area, has a greater potential for Conservation of flora and fauna. No comprehensive work was done so far on the flora of the Siju WLS to bring into focus the floristic diversity of the Sanctuary. Hence, the present study was aimed to prepare an account of the Angiospermic plant-diversity of the area. The work was also intended to study the rare, endangered and endemic plant species available within the sanctuary area and to study the plant resources utilized by the local communities inhabit the area.

4. The study was consisted of three major components, viz. field survey and collection, identification and documentation of plant specimens. The whole process of collection, pressing and preparation of herbarium specimens was in accordance to conventional herbarium techniques (Jain & Rao, 1977), final determination of collected specimens were done in the Herbarium of ASSAM.

5. The work is presented in five major chapters, viz. General Introduction, Review of Literature, Methodology, Results and General Discussion.

6. The first chapter deals with the definition of Protected Area, their importance and literature survey of phyto-diversity on Protected Areas especially in the north-east India including
Meghalaya; Choice & importance of the study area; Aim and Objectives of the study and About the study area including Location, Physiography and Drainage, Geology and Soil, Climate and Vegetation of the Study area.

7. The second chapter deals with Review of Literatures concerning the floristic and ethno-botanical works so far carried out in North East India including the state Meghalaya. The third chapter deals with the methods of the present works viz. Field and Herbarium Methods, Identification of the specimens, Nomenclature & Presentation of the Flora and Ex-Situ and In-Situ Conservation.

8. The fourth chapter deals with the Results of the study which include the taxonomic treatment of 203 species of Angiospermic plants documented from the Siju Wildlife Sanctuary along with the local names, uses and status of the species.

9. The fifth chapter deals with the General Discussion which is subdivided into four heads, viz. Discussion on Angiospermic plan-diversity in the Siju Wildlife sanctuary, Discussion on interesting aspects of Angiospermic flora of the Sanctuary, Discussion on economical aspects of the Angiospermic plants of the sanctuary and Observation on ethno-medicinal data with reference to the traditional uses.

Discussion on Angiospermic plan-diversity in the Siju Wildlife sanctuary reveals the occurrence of 203 species of Angiosperms along with the total number of families, genera and species presented in the flora. Of the total species Dicotyledons comprise of 62 families, 130 genera and 147 species and monocotyledons comprise of 16 families, 45 genera and 56 species. Out of the total 203 species, dicotyledons represent 72.42% and monocotyledons by 27.58% as well as out of the total recorded species herbs comprise of 69 (33.99%), shrubs 53 (26.10%), climbers 24(11.82%) and trees 57 (28.07%). A conspectus of Angiospermic families showing diversity of genera and species is also given. Discussion on interesting aspects of Angiospermic flora of the Sanctuary contains Primitive Angiospermic plants; Phyto-geographical affinity; Rare (R), Endangered (EN) and Threatened (T) Plants of Siju Wildlife sanctuary. Again, economically important plant species which are found commonly in the sanctuary viz. Timber yielding Plants, Fibre yielding plants, Broom making, Thatching, Wild edible plants, Medicinal Plants and Ornamentals Plants are highlighted in Discussion.
on economical aspects of the Angiospermic plants of the sanctuary. The observation on ethno-medicinal data with reference to the traditional uses of plants contains methodology of uses; used plant parts, local names of the plant species recorded from the areas which is presented in a tabular form.

10. An overall analysis of the findings of the work authenticated the possession of a rich botanical wealth in Siju Wildlife Sanctuary, which re-emphasized this Protected Area as a treasure house of plants of rare, endangered & endemic, economic and taxonomic importance. Not only the scientific community but also the Government, Non Governmental Organizations and general public should come forward to protect the rare wealth of this Protected Area. It is imperative that all the resources of the park should be conserved for the posterity of the future generation.