A systematic study of the pteridophytic flora of Sivasagar district, Assam

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SUMMARY
An enumeration of the pteridophytes in the reserve forest of Sivasagar district, Assam, is presented and is the first report for the area. A total of 68 specimens of pteridophytes were collected and classified into 68 species from 27 families, the pteridophyte biodiversity in these reserve forests likely highest overall biodiversity region of Sivasagar district. Although ferns dominated at all taxonomic levels in different habitats. According to habitat types, the specimens can be classified into four groups: terrestrials 38 species, epiphytes 14 species, lithophytes 5 species, aquatic plant 08 species and climbers 3 species, although 5 species were found in more than one habitat.

Key Words: Pteridophytic flora, Pteridophytic plant species

How to cite this article: Baruwati, Nipun and Gogoi, Manjit (2013). A systematic study of the pteridophytic flora of Sivasagar district, Assam. Internat. J. Plant Sci., 8 (1) : 113-115.

Article chronicle: Received : 08.09.2012; Revised : 20.09.2012; Accepted : 12.11.2012

Sivasagar district has much significance due to ecological, biological and geomorphological background. Rich floristic diversity and great variability of species at ecosystem level is consisting of different types of vegetation in various habitats. The geo-coordinate of the district is 26°46'8" North latitude and 94°44'35'' East longitude and geographical area of the district is 2,668 sq. kms. The pteridophytes formed a dominant part of earth’s vegetation in the historic past. In present day flora excluding the non-vascular plants, they rank only next to the spermatophytes. No doubt lesser in number, the pteridophytes land a distinct charm and physiognomy to the landscape. The elegant tree ferns of the warm humid forest of Sivasagar district, the epiphytic ferns and the hanging club-mosses of the tropical forests attract once attention. Some of them grow in water and form a luxuriant hydrophilic component of the lakes, ponds and pools (Azolla, Marsilea).

The contemporary nomenclature of species of pteridophytic plants following Ching (1936, 1938), Copeland (1947), Panigrahi (1960) have been employed in the enumeration. As far as possible, references to Beddomes book (1876) have been cited with the species. The arrangement of pteridophytes is according to the alphabetical order of their scientific name in Table 1.

MATERIALS AND METHODS
The observations are based on surveys conducted in different areas of Sivasagar district during 2011-2012. Field collections of pteridophytic plants were conducted at monthly intervals from selected sites specially in five different reserve forests. The specimens were collected and photographs were taken of each species. Some specific pteridophytes rich sites such as Abhoypur reserve forest, Sola reserve forest and Geleky reserve forest were selected for repeated visits. Collected specimens were identified using keys and descriptions from taxonomic literature, such as Floras, manuals, monographs, as well as research papers etc.

RESULTS AND DISCUSSION
During survey in the study site in the year 2011-2012 a