STUDY ON THE PTERIDOPHYTIC FLORA OF NAGALAND

By

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CERTIFICATE

I certify that the thesis entitled 'STUDY ON THE PTERIDOPHYTIC FLORA OF NAGALAND' submitted by N.Sakutemsu Jamir for the degree of DOCTOR OF PHILOSOPHY of the North-Eastern Hill University embodies the record of the original investigation carried out by him under my supervision. He has been duly registered, and the thesis presented is worthy of being considered for the award of the Ph.D. Degree. This work has not been submitted for any degree of any other University.

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C O N T E N T S

INTRODUCTION

Pteridophyta, the first group of spore-bearing vascular plants, include the fern-allies (Lycopodium, Selaginella, Equisetum) and the true ferns. The latter constitute a major group of living pteridophytes, which are adapted to a wide variety of habitats. Pteridophytic flora of northeast India is specially quite rich, on account of the favourable climate and plentiful moisture, and form a conspicuous feature of the vegetation and landscape. But unfortunately, this group of plants has not received due attention by plant explorers and flora writers, mainly because of the difficulty involved in their identification.

Nagaland, one of the hill states in northeast India supports a very rich and luxuriant vegetation. This state, which came into existence on 1st December, 1963, formed a part of earlier Assam, which is considered to be one of the richest and interesting 'Botanical Provinces' of the Indian subcontinent. But still, there is no comprehensive flora of this state, though Nagaland along with the neighbouring regions once formed a famous hunting ground for a number of British botanists from time to time (Buchnan-Hamilton, 1820; Roxburgh, 1820-24; Griffith, 1837; Masters, 1844; Hooker, 1855, 1872 - 1897; Hooker and Thomson, 1851; Clarke, 1880, 1889; Bor, 1940, 1942). Masters's (1844) remarks on the flora of Naga Hills "I presume it would occupy an experienced Botanist 10 years to explore the whole of Naga Hills, from the Booreedihing to the Dhunsiri in a satisfactory manner,

none of them having been hetherto visited by any Botamist" partly holds good even today.

The only regional account of the flora is that of Kanjilal et al., (1934-40), which deals only with dicotyledonous species (except for Poaceae by N.L.Bor, 1940). Pteridophytes plants are totally excluded in this work. Further, subsequent to the publication of this regional flora (Kanjilal et al., 1934-40) there has been a large scale alteration in the native flora of the state, owing to the practise of the so called 'jhuming' or shifting agriculture (Rao, 1978). It is therefore, not only essential but worth recording the plant species of the state before we are left with many barren grass-covered hills, devoid of any luxuriant vegetation. Besides, basic information about plant species is highly essential for fuller exploitation of our plant resources, and this is particularly so for a state like Nagaland, which along with other states in northeast India is on the threshold of numerous intensive programmes of development.

After the reorganisation of Botanical Survey of India and with the establishment of a separate regional circle at Shillong in 1956, some significant collections have been made from Nagaland but with a bias towards flowering plants. Further, these collections are mostly centred around Kohima and Mokokchung districts. The only existing fragmentary accounts of Pteridophytic plants of the earlier Assam (including the present Nagaland) are those of Panigrahi (1960) and Kachroo (1953,1975), and these again are based

on insufficient collections.

Thus, there exists a conspicuous gap in our knowledge of the flora of Nagaland, and as a prelude towards achieving a full flora of the state, the present account 'Pteridophytic flora of Nagaland' is attempted here, based on extensive collections and first hand field informations gathered during 1978 - 82.