INTRODUCTION

The hyphomycetous fungi are a group of Deuteromycetes (Fungi Imperfecti) in which the conidiophores are free and arise from the surface of the substrate or from aerial mycelium.

The habitats of these fungi and the conditions under which they grow are very diverse. These fungi produce characteristic symptoms (spots, blight, blotch and discoloration) on leaf, on inflorescence and on fruits of both cultivated and wild plants. The symptoms produced by these fungi are very diverse in size, shape and colour. The widespread occurrence of these fungi and their behaviour on host plants have attracted attention of many workers in India and abroad.

West Bengal is a North - Eastern State of India, located between 85° 30' and 89° 50' East ; and 21° 38' and 27° 10' North. This state is bounded by the Himalayan range, Bhutan and Sikkim in the North, the Bay of Bengal in the South, Assam and Bangladesh in the East, Nepal, Bihar and Orissa in the West. The total area is 678535 sq. Kilometer. This state comprises of sixteen districts, Calcutta, 24-Parganas, Howrah, Hooghly, Burdwan, Birbhum, Bankura, Purulia, Midnapore, Nadia, Murshidabad, Malda, West Dinajpur, Darjeeling, Jalpaiguri, and Cooch Behar.

The climatic conditions and the general topography of this state provide an ideal location for the growth of different
kinds of plants both wild and cultivated. In summer, temperature 
ranges from 80°-100°F, but in winter it never exceeds 55°-65°F. The 
average annual rainfall of different regions of West Bengal 
varies from 50" to 140". Owing to the proximity of the sea in 
the southern part and the presence of the Himalayan range in the 
North, the weather condition of this state is humid nearly all 
the year round. The development of dense natural forest areas at 
hills and all the foothills (dooars areas) in the Northern part 
of the State is a notable feature of West Bengal.

With such a wide range of climate, topography, and 
hydrology, hyphomycetous fungi predominantly invade the leaves 
of wide range of plants, and they prefer to grow on leaves than 
on any other parts of plants. Since the surface area of the leaves 
is notably large in comparison with the other parts of plants and 
further the leaves most of the time remain exposed, so large 
number of fungi get ample scope for inhabiting on them. This 
fact attracted attention of the present worker to investigate on 
this interesting group of fungi.

Workers all over the world made valuable contributions 
on the hyphomycetous fungi. Special mention may be made of some 
of them: P.A. Saccardo (1886-1931), A. Agostini (1926-1929), 
E.W. Mason (1928-1941), S.P. Wiltshire (1929-1947), P. Neergaard 
(1945), S.J. Hughes (1949-1959), C. Chupp et al. (1948-1955), 
(1959-1987), J. Kranz (1965-1966), G. Morgan - Jones et al. (1972- 

Some of the workers of hyphomycetous fungi of West Bengal are: E.J. Butler and associates (1905-1931), H. Sydow and associates (1913-1937), C. Chupp and associates (1948-1953), R.P. Purakayastha and associates (1968-1978), S.K. Shome and associates (1966), A.K. Kar and associates (1969-1987), M. Mondal (1980), J.B. Roy (1981). Most of these workers confined their area of investigation around the genera Cercospora (not extensively done), Pseudocercospora (very few species have been worked out), Alternaria, Curvularia, Zygosporium, Stenella (limited number of species have been treated), Cladosporium, Corynespora. Some how
they did not pay much attention to the genera: *Pseudocercospora*, *Cercospora*, *Stenella*, *Cladosporium*, *Zygosporium*, *Stemphyllium*, *Pyricularia*, *Cercosporella*, *Mycovellosiella*, *Exosporium* which occur on leaves of both non-flowering and flowering plants.

The present worker concentrated his work on the following genera: *Epicoccum*, *Stemphyllium*, *Pseudocercospora*, *Pyricularia*, *Cercosporella*, *Cercospora*, *Mycovellosiella*, *Stenella*, *Cladosporium*, *Zygosporium*, *Corynespora*, *Dendryphiella*, *Alternaria*, *Exosporium*. Members of these fungi occur profusely on leaves of large number of host plants (both Pteridophytes and Angiosperms) in West Bengal, causing severe damage. Interest to work on these fungi increased more and more due to their wide spread occurrence particularly on flowering plants having economic importance.

Due to facts stated above the present worker concentrated on leaf inhabiting hyphomycetous fungi belonging to above mentioned genera with relation to their pattern, host range, general morphology, nature of variation and behaviour of different species of these fungi of West Bengal during the different seasons of the year. The period of the present investigation ranges from 1983 to 1987.