

PART I

TAXONOMIC STUDY

1. INTRODUCTION

The manifold utilization of the mushrooms by human beings have warranted their detailed study. These biotrophic, necrotrophic and saprophytic organisms have received the wide as these are interest source of delicious food with palatable taste and high nutritive value.

Mushrooms have drawn attention of human beings since the 5th Century B.C. Recent controversial hypothesis by Wason (1971) that the vedic "Soma" could be a species of Amanita muscaria has added much interest on mushroom study among the Indian scientists. So far about 5,000 species of mushrooms (Agaricales sensu stricto = Agaricaceae sensu Ainsworth 1971) are reported from the world. In contrast, however, the Indian records show that only about 500 species of mushrooms are reported from various parts of India (mostly from Northern India and a few from S.W. India) uptil now which spread area a period of a span of 125 years of works.

The first record is that of Montagne (1842). Due to their slow progress in the field of Indian Agaricology, Das Gupta (1958) stated "The Agaricaceae have suffered from a surprising degree of prolonged neglect by mycologists in India". Earlier contributions to this group were made by foreigners, mostly from places of tourists' interest and there are few systemic scientific attempt for exploration of the mushroom flora of this country.

Amongst the pioneer Indian workers, Lt. Col. Kirtikar of the Indian Medical Services recorded some mushrooms of Calcutta. The first systematic attempt on a larger scale was made by S. R. Bose and his students (1919-'51) but this initiation did not last long.

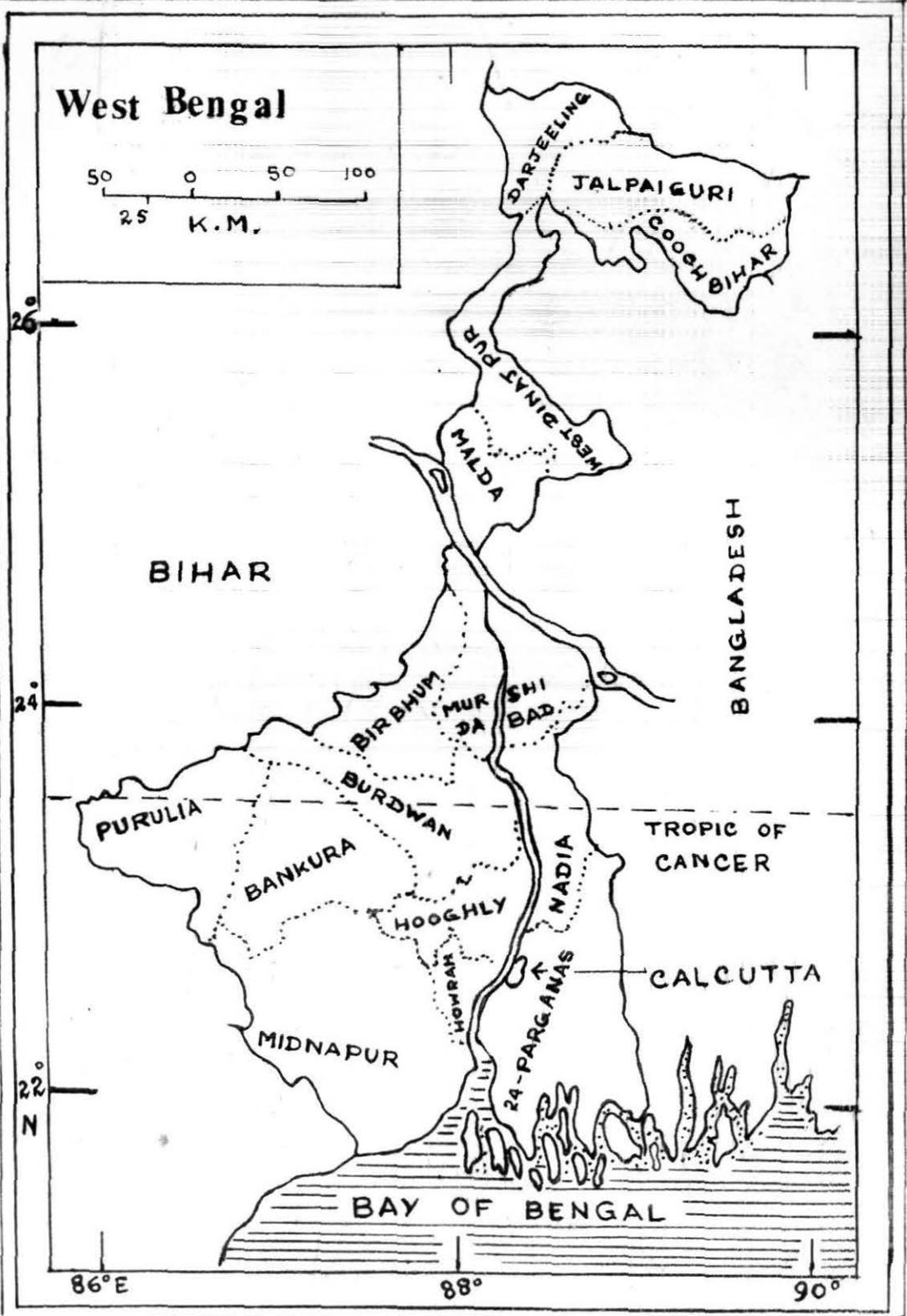
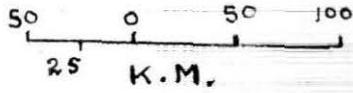
The members of Agaricales have been extensively studied in other countries but upto now it is a neglected field of research in India, especially in Eastern region. Though several monographs on certain group of Indian fungi have been appeared, yet information pertaining to mushroom is relatively scanty. Saccardo (1887-1925), Berkeley (1856, 1869) have reported some Indian mushrooms in their books.

Later Bose (1918, 1920, 1923, 1940); Murrill (1924); Thivy (1947); Moses (1948); Ramakrishnan et al. (1952); Chopra and Chopra (1955); Moser (1960); Rath (1962); Ghosh and Pathak (1965); Sohi et al. (1964, 1965a); Ghosh et al. (1967); Trivedi (1972); Kaul and Kachroo (1974); Sathe (1978-1979); made some sporadic attempts on the systematic work on this vast important group.

The earliest work on the fungi of Bengal (at present West Bengal and Bangla Desh) is that of Berkeley (1864). Later Bose (1918-1947) in his classical works on the Polyporaceae has described 135 species of polypores and only 23 species of Agaricales from Bengal. Banerjee (1935, 1947), Banerjee and Ghosh (1943), Roy (1949), Roy and Samajpati (1977), Roy and Samajpati

Text-fig. 1. Map of West Bengal showing different districts and areas of collection

West Bengal



(1978-1979) have made some sporadic attempts to record the fungi of Bengal as well as the Eastern part of India. But upto now, there is no scientific data on the mushrooms of West Bengal.

As such in the present work attempts have been made to describe some of the edible mushrooms of different districts of West Bengal in order to prepare comprehensive scientific data on these members of West Bengal and exploit them more efficiently in proper direction for utilization of human beings.