PREFACE

Studies on protozoa date back to the 17th century when Antony Leeuwenhoek made the first observation on Protozoa. Work in this area remained neglected for several years, mainly because of the minute size of these organisms and the difficult techniques involved in studying them. With the advent of improved microscopic and staining techniques, more workers have been attracted to the protozoa during the later half of the 19th century. During this period several important contributions were made on the structure and systematics of the protozoa. In later years, modern techniques have helped in studies in several directions including cytology, cytochemistry, cytogenetics, ultrastructure etc. The free living protozoans have become the essential tools for research in cell biology. The parasitic forms continued to gain importance in view of their diseases producing potentialities. Thus in recent years there has been a rapid and widespread increase in work on protozoa.

Notwithstanding this, the information available still appears to be limited, as most of the recent advances have been restricted to some of the better
developed geographical areas, which have the advantage of modern technology and sophisticated instrumentation. In most of the other areas, constituting the so called developing countries, comparatively less work has been done on protozoa. In these areas there is still a large scope for studies on basic aspects like morphology and systematics. The information on morphology, taxonomy and geographical distributions is necessary to provide a definite base for work on applied aspects.

The need for basic taxonomic studies is particularly relevant to our country, with its large size and varied fauna in relation to geographical and climatic factors etc. Several parts of our country, particularly in the interior and rural areas have remained unexplored for protozoan parasites. One such area was the Marathwada region of Maharashtra state, which had remained unexplored until recently. During the last 12 years, workers from the Marathwada University, have carried out extensive taxonomic surveys in this area. The studies on the intestinal flagellates of amphibians, reptiles and birds among vertebrates and some arthropods, annelids and the molluscs among invertebrates have been carried out.
Surveys have also been completed on the coccidian fauna of birds and mammals of this area. In recent years attempts have been made to study the ciliates occurring in amphibians and some invertebrates. The present thesis is a step in this direction and consists of taxonomic studies on the ciliates of the genus Nyctotherus occurring in some arthropods.