INTRODUCTION

The subfamily Microgastrinae belongs to the microgastroid assemblage of Braconidae (Whitfield and Mason 1994; Whitfield 1997b; Dowton et al., 1998) with approximately 1,500 described species from the world, of which only 151 species have been reported from India (Shenefelt, 1972, 1973; Mason, 1981). All the members of subfamily Microgastrinae are koinobiont endoparasitoids of lepidopteran larvae. The eggs are deposited into host larvae, developing solitary or gregariously, then emerging from late larval stage for pupation. Microgastrine wasps are the most important single group of parasitoids of Lepidoptera in the world. More than hundred species of this group have been used successfully in biological control programme against various economically important pests world wide (Austin & Dangerfield, 1992, 1993; Whitfield, 1997a). In spite of great importance of microgastrine parasitoids in the bio-control of insect pests, their use in biological control is, to a great extent hampered by the lack of reliable taxonomic studies on this group. It is well known that correct identification of parasitoids, its hosts and the stage attacked by the parasitoids are essential for any biological control programme to be a success. Incorrect identification of the parasitoids and its host species and ignorance on the status of parasitoids more often lead to failure of the biological control programme, which in other words means loss of money and wastage of manpower.

Mason (1981) in his phylogenetic analysis of the Microgastrinae, has not commented upon the placement of majority of the species from the Old world. and species of the Oriental region. Recently, Austin & Dangerfield (1992) classified Australasian Microgastrinae but the species belonging to the other parts of the Old World, especially Indian region still remain unclassified. The systematic placement of Indian Microgastrinae, in the light of Mason's (1981) generic scheme is in urgent need and described species have to be properly placed into their respective genera.
It is evident from the Review of Indian Literature (p.3), that majority of the species described in Microgastrinae were placed in the genus *Apanteles* Foerster. Whether, these species actually belong to *Apanteles* has to be determined by examination of relevant types. Therefore, the main aim of the present work is to study the available types of microgastrine species described from India, and to assign them to their proper genera. At least a partial success in this regard has been achieved. The author was able to study the types/authentically determined material of 62 species, mostly present in the collection of F.R.I. and I.A.R.I. For other material which was not available, the author has to rely on the generally poor original description.

In the present work 28 microgastrine genera have been recognized from India, of which 7 are recorded for the first time and a total of 62 species have been studied, of which 17 are new to science, 25 new combinations have been proposed and two species are recorded for the first time from India. Keys for the identification of Indian genera, and separate keys to the Indian species of the genera viz., *Apanteles*, *Dolichogenidea*, *Iconella*, *Illidops*, *Deuteryx* and *Distatrix* are given. All the species dealt with in this thesis are described/redescribed based upon the material studied by the author and supported by 59 figures. For each species, there is information on the hosts recorded from India, and Indian distribution, with extra-limital distribution noted in the parenthesis.