1. to study the qualitative and quantitative structural groupings and species composition of parasites and influence, if any, of biocoenotic and phonological factors on their occurrence;

2. to study the morphological characterization and identification of helminth species parasitising the anuran host, occurring in varied climatic zones of Nagaland; and

3. to find out the zoonotic potential, if any, amongst the parasitic forms prevalent the amphibian hosts of the region.

The proposed study therefore aimed:

Of more than 4120 species of anuran Amphibia reported under 248 genera with 17 families, about 180 species under 24 genera and 6 families are known to occur in the Indian sub-continent (Chanda, 1994). With about 62% of the species being endemic, the Indian amphibian fauna is quite distinct. The northeastern region of India is a known area of high endemism. With regard to amphibian faunal diversity, as many as 54 species under 6 families and 18 genera have been reported from the country, out of which 21 species are restricted to the region. Dense tropical rain forests, high precipitation, varying altitudinal gradients, abundance of food species and relatively less eco-disturbances have possibly contributed to the richness and diversity of anuran Amphibia in the northeastern region of India (Chanda, 1994).

The diversity of parasitic fauna in Amphibia in the Indian sub-continent is reflected in various surveys carried out from time to time by many workers. Earlier studies made on similar aspects on Amphibia in Meghalaya revealed the occurrence of some helminth parasite species which were restricted to rhacophorid and/or raniid hosts and have not been reported from anywhere else in India. Interesting information on the biology of the polystomatid monogenea, which appear to be an endemic species of the region, was provided by Dutta (1997). Preliminary studies, on similar aspects, in frog of Nagaland revealed a rich parasite spectrum, with a total of 29 species (Tandon et al., 2001); the study also recorded a high intensity and prevalence of plerocercoid larvae (spargana) from 6 of the host species examined, all of which are used in traditional medicine and local cuisine among the natives of Nagaland (Tandon and Imkongwapang, 1999).

In view of the endemism and species richness of both anuran Amphibia and their sustained parasite fauna of Northeast India, occurrence of isolationist helminth infections is expected in this region (Diengdoh, 1989; Diengdoh and Tandon, 1991; Tandon et al., 2001). Therefore, it was proposed to take up this study with an objective of revealing the diversity of helminth infracommunities through exhaustive exploration by furthering the study area and the host range of anuran Amphibia of Nagaland state.

The proposed study therefore aimed: