INTRODUCTION

Parasitism is a natural way of life, among the large number of organism and parasitic diseases are the major public health problem, which results into morbidity and mortality in tropical countries, particularly in the socioeconomic-ally underdeveloped societies in the world. Food, water and soil-borne infections are estimated to be affecting almost half of the world’s population. Zoonoses (i.e. diseases that are transmittable between animals and men) of parasitic origin contribute to this statistics by affecting human health and causing heavy losses directly or indirectly to economy.

The aquatic environmental route of transmission is adopted by and is important for many protozoan and helminth parasites. The consumption of animal-based food like crustaceans, mollusks, fishes, birds, beef and pork facilitates. Transmission of large number of parasitic infections. The burgeoning travel industry, emigration and importation of food from endemic regions has resulted in increasing diagnosis of these infections in non-endemic regions of the world now transcending all geographical and political boundaries. The potential of parasites for producing large number of transmission stages (cyst, spore, egg and larva) and their environmental robustness (being able to survive in adverse microclimates for prolonged periods of time) pose a persistent threat to public and livestock health.

The fisheries of India ought to be exceedingly valuable as affording an inexhaustible supply of animal food, for large number of people. These fishes are parasitized by helminth parasites, which reduce the food value, as they provide the highly nutritious food. The study of helminth parasites is therefore an urgent necessity today. Because fishes are said to be gold from water, which play an important role in nation’s economy of as nutritional point of view, fishes gives high content of proteins, to the deadly growing poor population, which is facing the problems of malnutrition. As a medicinal point of view fishes provides Vitamin-A and Vitamin-D and as a commercial or economical point of view, fishes are useful for preparation of soup, liver oil, skin, other oils etc.
There has been a rich tradition in this world to study the parasites of different types, their structure, life cycle, pathogenicity to their hosts, diversity etc. The reaction of the hosts to the presence of parasites, the ways to avoid and escape from parasitic attack, the mechanisms to fight parasitic infections and controlling parasitic infections by using drugs, vaccines etc., now all have become very crucial. Very few countries of the world, where a large number of scientists are engaged in research on all aspects of the life of parasites.

Keeping the view in mind the nutritional, economical and medicinal value of freshwater fishes, the author has undertaken the work of taxonomy, diversity, histopathology and population dynamics of helminth parasites of freshwater fishes from Maharashtra. The present investigation was started in Dec.2004, with the following principle objectives.

1) To make the general survey of freshwater fishes from Maharashtra state, India (selected areas) for observations of helminthic infection.

2) Assessment of the diversity of helminth parasites of freshwater fishes in relation to geographical distribution from Maharashtra state, India

3) Taxonomic identification of new helminth parasites.

4) To study the host-parasites relationship as well as histopathology.

5) To study the population dynamics of helminth parasites i.e. incidence, intensity, density and index of infections.