CHAPTER II

REVIEW OF LITERATURE

Veterinary education in India. Importance of Parasitology in veterinary profession. The foundation of modern veterinary education in India was laid during the British Raj, but it was maintained at a low key. This can be best realised by the fact that upto eye of Independence, India (i.e. Undivided India) had only four veterinary colleges that were located at Lahore (founded at 1882) Bombay (1886), Calcutta (1893) and Madras (1903) respectively. It is significant that none of them were affiliated to Universities, In reality, the colleges were extensions of Govt. Veterinary departments of the states in which they happened to fall and were run like any other Govt. agency.

Even though considerable knowledge pertaining to parasites was known in ancient India (Hoeppli, 1956) the credit for laying the scientific foundation of Parasitology in general and of veterinary and medical Parasitology particular, in India goes to a few enthusiastic officers of the veterinary and medical services in the second half of the 9th century. For this humble beginning the history of Parasitology in India can be followed in four successive phases.

In the 1st phase, much of the parasitic material was collected during the course of their work by veterinary and medical persons of the Govt. of British India. This material was sent to various parasitologist/ zoologists working in different centers in Britain and other parts of Europe. This trend continued almost upto the beginning of the First World War.

In the second phase, the parasitological research made its expansion start in India. When British scientist working in the country started investigations of parasitological problems in the country itself. One example, Swell (1922) published a monograph, which is now considered classic, Indian cercariae around this time Indian scientist also started collaborating in these research efforts with their British counter parts (prassed-1938)
knowledge in this area has come to light only during the beginning of the twentieth century (Cheng 1964) at the time of second phase in India.

Some countries have notable contributions in the tapeworm physiology and Biochemistry was made by Von. T. Brand, Bueding, Read, Smith, Fair brain, Freeman, Hunter, Haltom, Goal smith, Goodchild, Agosin, Campbell etc.

In the third phase, which actually began in thirties, parasitological research was inaugurated in different universities in the country. Most prominent among these was Lucknow (under late, Prof. G.S. Thaper), Allahabad (under Dr. M.B. Melra), Aligarh (under Dr. B. Mirza) and Nagpur (under Dr. B.A. Moghe). In addition imperical veterinary Research institute (with Dr. S.C. Datta, Dr. G.D. Bhalerao, S. K. Sen and Dr. H.R. Ray) and Calcutta school of tropical medicine (with Dr. G.B.M. Das Gupta) too had strong Departments of veterinary and medicinal Parasitology. Slightly later, the department of Parasitology of Madras veterinary colleges (under Dr. M.A.N. Rao) also acquired eminence in the country (Datta-1968). Simultaneosly some reports on ecological studies on the helminth parasites of alimentary tract of the host are available for various countries like V.S.S.R. Poland, Bulgaria, Rumania, France, Australia and Hungery. Notable contributions were made by Elton C.S. (1927) Ferguson (1943) Cole (1954), Lees (1962), Thomas (1965), Dogieletat (1989), Kisielewska (1970) Odum (1971), Whitlock (1972), Bochaul (1974), Esch (1977), Raghavendra Rao (1978) and Rajeshwara Rao (1981) among others.

The process in this field in the first three phases has been rather slow but dramatic development took place in the later years with the advent of new tools and techniques of investigation. The introduction of electron microscope has revolutionized our ideas concurring the structure and physiology6 of most of the parasitic groups. Advances in immunology and biochemistry have proceeded with bewildering rapidity and techniques developed in these fields have increasingly been used in the study of parasites and best host parasite relationship (Smyth 1969).
The fourth phase started with the advent of independence and the period immediately following it. It is in this period that veterinary colleges ceased to be more extension of veterinary departments of their state Government and become integral parts of Universities. Thus, veterinary colleges acquired the status of veterinary faculties and these, in turn were organized around different subject as departments.

The situation changed after 1947 with insistence of universities on specialization of teachers a peculiar situation arose. There were hardly any qualified parasitologists among the veterinary graduates then available to the acceptable to universities for teaching Parasitology. No wonder these teaching positions were filled outside the veterinary profession mostly by zoologist specializing in one or the other field of parasitologist in zoological field who made extensive work on Tapeworm Morphology, Biology and population study. Prof. G.B. Shirde, Dr. B.V. Jadhav and Dr. A.D. Mohankar.

In recent year a new area i.e. wild life Parasitology, has also opened up for the veterinarians an increasing demands are being made on them to solve the problems of diseases in wild animals and birds of different zoos wild life sanctuaries and national parks. Many of these problems are parasitic in nature. To face these and similar challenges we need to know Parasitology in the style of Tomorrow rather than that of Yesterday. Keeping in view importance of the biological or ecological chain and reduction of population of fishes and Amphibia in chain system, many more researchers concentration on tapeworm studies and thus at the instance of Dr. S.B. Deshmukh, the author has investigated the Taxonomy, Biology and Seasonal Variation of cestode from fishes and amphibia.