

S Y N O P S I S

The research project which has been undertaken in course of the present investigation is entitled " Observations on certain protozoan parasites in the blood of some vertebrates". The entire work has been divided into four parts.

Part I is entitled "Studies on Trypanosoma in some lower vertebrates". It records eleven species of Trypanosoma found in some fresh water fishes, Anurans, Chelonians and Ophidians collected from some parts of West Bengal State and Manipur State. Out of these eleven species, one is considered new species from a fish host. Morphological features seen in peripheral blood smears are described and compared with allied species of Trypanosoma. Besides that, description of ten species (including two species described elsewhere*) are also included. A check-list containing known Trypanosoma in some lower vertebrates in India is also incorporated in this study.

Part II is entitled "Studies on Haemogregarina in some Chelonians and Ophidians". It records the description of three^{new} species along with two known species

*Vide appendices 6 (i) and 6 (ii).

from turtles and snakes collected from some parts of West Bengal State. The tissue phase of Haemogregarina n.sp. (b) in the sections of liver of snake host indicates the presence of megaloschizonts which has been detected in this study. Macrogamete and small immature oocysts of this parasite are also found in the section of leech. New haemogregarines are also compared with the known species. The check-list provided includes the known Haemogregarina from Indian Chelonians and Ophidians.

Part III is entitled "Studies on Hepatozoon in some snakes". It communicates the description of three new species of Hepatozoon from some snakes collected from some parts of West Bengal, India. Development of these parasites in liver and lung tissues of snakes are also studied which reveals macro and microschizonts and their merozoites. New species of Hepatozoon are also compared with the allied species. A check-list of Hepatozoon from Indian snakes is also incorporated.

Part IV is entitled "Studies on some blood parasites in Himalayan flying squirrels". This chapter deals with the species of Trypanosoma, Hepatozoon

Anaplasma , Rickettsia along with microfilariae from some Himalayan flying squirrels, collected in Darjeeling (altitude 2000 -2010 m), West Bengal, India. Out of these parasites, Hepatozoon is considered new to science and is compared with known species of this genus. A check-list containing the blood parasites of Himalayan flying squirrels is also included in this study.

New names have not been provided for the parasites mentioned in the thesis. In lieu of this, small letters viz., (a) , (b), (c) etc. have been used to denote new species. This procedure has been followed to satisfy the Criteria of Availability (Articles 9,10,11) of the International Code of Zoological Nomenclature. Names which are proposed to be assigned to these new parasites at the time of actual publication are listed in Appendix (iii). After publication the holotype and paratypes will be deposited with the National Zoological Collection of Zoological Survey of India, Calcutta.