Material and Methods

Percentage of Prevalence

Part - I
Material and Methods:

Collection and Maintenance:-

The material for the present study was obtained from Arthropoda (class – insect, it was collected during the period of about two year’s (June 2011 to may 2013). During this period seven different hosts from class – Insecta were collected and examined for gregarines infection. They were maintained alive in plastic jars filled with dead leaves and cow dunk collected from their habitats until use.

Material and Methods:

The invertebrate hosts were collected for a period of about two years. During this period Seven different hosts. (Tenebrio molitor, Gonocephalum granulatum, Gonocephalum simplex, Tribolium castaneum, Zygogramma bicolorata, Phlaeoba infumata and Trilophidia annulat) were collected in the Jalna district and Aurangabad District of Marathwada region (M.S) They were collected during study period (June 2011 to may 2013). The beetles are dissected and remove their guts carefully. This material placed on clean glass with a drop of 0.6% Nacl solution. A thin film or smear was taken on a slide covered with cover slip for Examination of living protozoans under the light microscope (Phase contrast an Olympus binocular). After the initial study of the smear is semidried and fixed in schauddin’s fluid for 20 min. The smears were stored in 70% ethanol for removing of mercuric chloride. Then slide pass through a deseeding series of alcohol for 5 min. and placed in Distilled water then kept in Haematoxylin stain for overnight depending on parasite. Then slide washed thoroughly dehydration in an ascending series of Alcohols, cleared in xylol and mounted in D.P.X. All measurements were made with a calibrated ocular micrometer (µm) (40 x, 20 x, and 10x) photography.
Collection of cysts of Gregarines:

The smear containing cysts were collected from the gut of host by means of micropipette and transferred to moist chamber to which the ringer solution was added. Further developmental stages of the cysts were subjected to repeated microscopic examination at definite intervals (8 hours) and the intermediate stages were recorded pressed under the cover glass examined for gametes.

The dimensions of the gregarines were based on the organisms selected at random from different smears with an ocular micrometer. Total 20 organisms of different size of each species were measured.

The slides, live photographs, video shootings of live species are submitted in protozoology laboratory, Department of zoology, Dr. Babasaheb Ambedkar Marathwada University, Aurangabad.