

A STUDY ON HAEMATOBIOCHEMICAL PARAMETERS OF EMBDEN GEESE (*Anser anser* Linnaeus, 1758)

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Abstract—Haematology, is a branch of medicine which deals with the study of the cause, prognosis, prevention and treatment of diseases related to blood and for chemistry analysis generally, serum is preferred over whole blood and plasma. Poultry birds play a vital role in the economy of India.

Geese are the waterfowl of the family Anatidae. The Embden is most commonly used as a commercial bird. They are mainly kept for meat production. They are also considered great weeders. For this study ten male and female Embden geese were collected from the campus of CUTM. The blood were drawn from the medial metatarsal vein of species and then blood samples were transferred into tubes containing Ethylenediaminetetraacetic acid (EDTA) for hematological analysis. The following hematological parameters viz. Hb% (Using Sahil's Haemometer), TLC, TEC (Neubauer's Haemaocytometer), PCV, DLC, PCV, MCV, MCH and MCHC were analyzed. Results revealed the erythrocyte number (male, $2.59 \pm 0.20 \text{ mm}^3$, female $2.16 \pm 0.05 \text{ mm}^3$) and is higher in male than female Embden geese. The maximum number of leucocytes was found in female in comparison to male and the mean value in male, 19.14 ± 0.29

mm^3 whereas in female, $21.47 \pm 0.42 \text{ mm}^3$. The total leukocyte levels were found to be higher in female geese but the levels of hemoglobin, haemocrite MCH and MCHC values were higher in male and ESR rate were found to be higher in female in comparison to male. Biochemical parameters, such as glucose, cholesterol, Protein, albumin, globulin will be estimated by using Standard procedure. The mean values of protein, albumin, globulin, glucose and cholesterol were found to be higher in male while the ratio between albumin and globulin is found to be increase in female. This investigation interprets haematobiochemical parameters deviates significantly in geese with respect to sex. This results will also provide a good estimation of the bird's state of health. From the above study it is concluded that the haematological blood picture can give significant hints for the avian physiological and health status like anaemia, infection and dehydration, etc.

Keywords: Embden geese, *Anser anser*, Haematology, Serum biochemistry.