

## Summary

The blood protozoa of avian are under the genera *Haemoproteus*, *Plasmodium* and *Leucocytozoon* which causes high mortality of birds and render huge economic losses of the farmers. The present study was undertaken to find out the prevalence of haematozoan parasites in ducks at Hakaluki and Tanguar haor of Sylhet division in Bangladesh. A total of 400 blood samples in summer (n=200) and rainy (n=200) seasons were examined under light microscopy and data on the breed, age, sex, deworming, types of scavenging, types of housing were recorded during the study period. Among the microscopically examined samples, 22% (44/200) duck were found to be infected with different blood protozoa during summer season and 15% (30/200) during rainy season. Of those, 14% (28/200) of birds were infected with *Haemoproteus* spp., 7% (14/200) with *Plasmodium* spp. and 10.5% (21/200) with *Leucocytozoon* spp. during summer season. On the other hand, 8.5% (17/200) of birds were infected with *Haemoproteus* spp., 11% (22/200) with *Plasmodium* spp. and 3% (6/200) with *Leucocytozoon* spp. during rainy season. Among the breeds, highest infection was 13.8% (12/87) of ducks (KK) for *Haemoproteus* spp. during summer season and lowest infection was 0.0% (0/3) of ducks (Muscovy) for *Leucocytozoon* spp. during both summer and rainy season. Highest infection was 40.0% (6/15) in the birds whose age was less than six months or equal in case of *Haemoproteus* during summer season and lowest infection was found 0.00% (0/12) in these birds whose age was less than six months or equal in case of *Leucocytozoon* during rainy season. Non vaccinated duck became more infected than vaccinated. In summer season, highest infection was 14.3% (17/119) in case of *Haemoproteus* spp. and lowest infection was 1.27% (1/79) in case of *Leucocytozoon* spp. during rainy season. Non-dewormed duck became more infected than dewormed duck for both during rainy and summer season. Highest infection was 15.25% (9/59) for *Haemoproteus* spp. during summer season but lowest was 1.75% (1/57) for *Leucocytozoon* spp. in rainy season Sick ducks became more infected than healthy duck. Highest infection was 26.32% (5/19) during summer season in case of *Haemoproteus* and lowest infection was 0.00% (0/15) in case of *Leucocytozoon* spp. during rainy season. Highest infection was 33.3% (4/12) during summer season in case of household

scavenging for *Haemoproteus* and lowest infection was 0.00% (0/4%) in case of Ponds cum wetland for *Haemoproteus*, *Leucocytozoon* and *Plasmodium* during both summer and rainy season. During rainy season, highest infection was 18.97% (11/58) in case of within house for *Plasmodium* and lowest infection was 0.00% (0/1) in case of yard cum house for *Haemoproteus*, *Leucocytozoon* and *Plasmodium* during both summer and rainy season. There was no statistical significant in the infection rates among the study sites. Two birds were positive for both *Haemoproteus* spp. and *Plasmodium* spp. Prevalence of infection varied among different breeds. My research work will help to control of blood protozoa and flock management easily of ducks at haor areas.

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**Key words:** Prevalence, blood protozoa, duck, swampy land