

Haemoparasites of domestic poultry and wild birds in Selangor, Malaysia

ABSTRACT

Avian haemoparasites are known to exert negative pressures on their hosts causing considerable pathology and mortalities. The present study reports on the prevalence of haemoprotozoa and microfilaria in various species of wild birds and domestic poultry in Selangor, Malaysia, and contributes to the database on the occurrence of these pathogens among avifauna in the country. Giemsa-stained thin blood smears were screened from 728 birds representing five avian orders, namely Galliformes, Anseriformes, Phoenicopteriformes, Pelecaniformes and Gruiformes. The most common haemoparasite was Plasmodium, with a prevalence of 8.0%. The aquatic/ wetland species of birds (Anseriformes and Gruiformes) were the most common hosts for this pathogen with high infection rates (31.8% to 50.0%). The prevalence of Plasmodium in domestic poultry was moderate (2.7%). Leucocytozoon sabraezesi and L. caulleryi were confined to the Galliformes with relatively low average infection rates of 0.7% and 0.5%, respectively. Haemoproteus was detected for the first time in domestic poultry and Red Jungle fowls in the country, with an average prevalence of 0.8%. Trypanosomes and microfilaria were only present in the village chickens and Red Jungle fowls, with high microfilaraemia rates (19.0%) in the latter. The current compilation will contribute to our understanding on avian haemoparasite transmission in the country.

Keyword: Haemoparasites; Plasmodium; Haemoproteus; Leucocytozoon; Trypanosoma; Microfilaria; Wild birds; Poultry; Malaysia