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# Identifying the hidden parasitic intruders: Molecular insights into the health of common Myna

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Toxoplasma gondii (T. gondii) is the most commonly reported blood borne pathogens that infect birds across the globe. This study aims to report the molecular prevalence and phylogenetic evaluation of T. gondii in the blood samples of common Myna (Acridotheres tristis: N = 80) collected from four region (Jhang, Khanewal, Multan and Muzaffargarh) in Punjab Pakistan by targeting the ITS-1 gene of this haemoprotozoan parasite. Risk factors associated with the parasite prevalence and the effect of pathogen on the complete blood count of the host were also reported. Results revealed that 2/80 (3%) Myna amplified ITS-1 gene of T. gondii. Risk factor analysis revealed that prevalence of T. gondii was not restricted to a particular sampling site or a particular bird sex (P > 0.05). Toxoplasma gondii infected birds had elevated red cell distribution width than their respective uninfected birds. All other parameters varied non significantly when compared between T. gondii infected and uninfected birds. In conclusion, we are reporting that T. gondii is infecting Pakistani Common Myna and this infection disturbs the blood composition of these birds and has the potential to disturb their productivity. We recommend similar studies from various geoclimatic regions when common Myna is existing to get more information about T. gondii prevalence in this bird that is living close to human settlements.

## Biography

Saba Mushtaq is a researcher affiliated with the Institute of Zoology, Bahauddin Zakariya University (BZU), Multan, Pakistan. Her work primarily focuses on zoological studies, potentially covering areas such as animal biology, ecology, and conservation. Based at one of Pakistan's prominent research institutions, she contributes to the advancement of knowledge in the field of zoology, engaging in both academic research and the dissemination of scientific findings. Her affiliation with BZU reflects her role in promoting research excellence within Pakistan's scientific community.