Comparative analysis of diet and prey preference of yellow-wattled lapwing, *Vanellus malabaricus* (Boddaert, 1783)

Prateek[1], Himanshu Mishra[2], Vikas Kumar[3] and Ashish Kumar[1,*]

[1]Department of Zoology, University of Lucknow, Lucknow 226 007, India
[2]Department of Zoology, Buddha P.G. College, Kushinagar 274 403, India
[3]Department of Biotechnology, IFTM University, Moradabad 244 102, India

The results of faecal analysis in the present study indicated no significant difference in prey items and prey occurrence between breeding and non-breeding seasons in yellow-wattled lapwings. However, Coleoptera and Araneae represented the highest and lowest prey items and prey occurrences respectively. Prey abundance significantly varied between breeding and non-breeding seasons. Uncultivated and cultivated habitat types had the highest and lowest prey abundances respectively. Jacob's index reflected that they primarily consumed arthropod larvae. Additionally, there was a positive selection for adult insects in the orders Coleoptera, Diptera and Blattodea and a negative selection for Oligochaeta, Diplopoda and Araneae. Thus, the yellow-wattled lapwings are flexible feeders, particularly in the breeding season; however, they favour uncultivated areas where food is abundant.

Keywords: Diet, faecal analysis, habitat, Jacob index, prey abundance, *Vanellus malabaricus*.

information is particularly essential for comprehending the ecology and evolution of bird species, as nutrition is key to the ability of a species to carve out a niche and maintain the ecosystem[11].

Food availability is an imperative factor that might influence breeding events (egg-laying date) and determine breeding success[12]. During the non-breeding season, resources (food, water, nesting ground) are required for the successful completion of the moult. They protect the newly hatched chicks from environmental constraints imposed by the winter season[13], hence influencing subsequent breeding performance[14]. Therefore, to ensure their survival and reproductive success, food availability is a common constraint on population growth for many taxonomic groups[15–17]. The quality of food enormously affects the survival and reproductive capacity of individuals within a population[18–20].

Since yellow-wattled lapwings are visual foragers, they collect their prey from the substrate boundary layers by applying a pecking foraging technique[21]. Generally, pecking and probing are reported as prime foraging techniques