

DIET ANALYSIS OF THE RED-HEADED TROGON AND ORANGE-BREASTED TROGON IN RELATION TO SEASONAL ARTHROPOD ABUNDANCE AND AVIAN PHENOLOGY

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ABSTRACT

The relationship between arthropod availability and the timing of avian breeding was investigated at Khao Yai, National Park, Thailand. The diets of Red-headed Trogons (*Harpactes erythrocephalus*) and Orange-breasted Trogons (*Harpactes oreskios*) were studied by means of nest cameras and direct observation. Monthly food availability was estimated by canopy pan traps and sweep netting. Breeding data was collected from 2003–2009. Both species' diets were found to be similar (Orthoptera, Lepidoptera larvae and Phasmatodea made up 81% and 87% of Orange-breasted Trogon and Red-headed Trogon diets, respectively), but timing of breeding differed. Orange-breasted trogons started breeding earlier and the season lasted for 2–3 months, Red-headed Trogons started later and the season spanned 5–6 months. Cross-correlation analysis showed that the timing of breeding of both species was linked to food availability, but in different ways. Red-headed Trogons timed breeding one month in advance of food peaks, and Orange-breasted Trogons five months in advance of food peaks. A compromise between nest competition and avoidance of the lean season is discussed as the likely reason for the difference in the timing of breeding.

KEY WORDS: FOOD AVAILABILITY/ HARPACTES ERYTHROCEPHALUS/  
HARPACTES ORESKIOS/ORANGE-BREASTED TROGON/  
RED-HEADED TROGON/TIMING OF BREEDING