Effects of fire on understorey birds in Kimboza Forest Reserve in the eastern foothills of the Uluguru Mountains, Tanzania

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Abstract

Fire is one of the main threats facing the long-term survival of the forests in the Eastern Arc Mountains. Yet, our understanding of how it affects fauna, particularly birds, is still poor. A fire that originated on surrounding farmland burned approximately half of Kimboza Forest Reserve between 13 and 15 October 2010. To better understand how birds respond to fire, a short-term study of understorey bird diversity and abundance in this forest reserve was conducted by comparing burned and unburned sites twenty months post-fire. Capture rates were significantly higher at the unburned site compared to the burned site. Bird species diversity was also higher at the unburned site than at the burned site. Despite the brevity of the study, the results suggest that fire has negative effects on forest avifauna and forest fires need to be prevented at Kimboza Forest Reserve as they affect the distribution and diversity of understorey birds.