

Barcoding of Forest Birds of the Eastern Cape

Forests make up only 0.56% of SA, but display unusually high biodiversity. Naturally patchy, they have been further fragmented by human activities: nearly 50% of indigenous forests are estimated to have experienced anthropogenic fragmentation, which together with the introduction of alien plantations, has led to range changes in dependent faunal species. Recent work has shown that half of SA forest dependent bird species have experienced range declines since 1992, mostly in the Eastern Cape. The primary causes of these declines appears to have been forest degradation, as forest cover has increased over this period. Forests are important in terms of the bio-economy as they have traditionally been harvested by local rural communities. Post-democracy they have experienced increased pressure from informal harvesters, particularly for timber for building and crafts; and bark for medicine. Degradation occurs where utilization of particular tree species leads to declining forest condition, although boundaries may remain intact. Our proposed area of study forms part of the Maputaland-Pondoland-Albany Biodiversity Hotspot. Eastern Cape forest faunal diversity has been poorly documented, despite the province containing 46% of SA's natural forests. DNA barcoding has been proposed as a method of identifying taxa/species based on short sections of DNA. This in turn contributes to documenting genetic diversity in as many species as possible in the face of anthropogenic threats to biodiversity. To date very few South African bird species have been barcoded. This study proposes to add a further 231 samples from 75 forest bird species to BOLD, including two vulnerable (Knysna Warbler and Bush Blackcap) and one endangered species, the Spotted Ground-thrush.