

Abstract

Thickets along rivers in Eastern Kenya are important habitats for many endangered species. These habitats also provide fundamental ecosystem services for humans. Intense anthropogenic activities during the past decades have caused a severe reduction of this vegetation and resulted in fragmentation of the remaining thicket patches. We assessed the occurrence of the Kenyan endemic bird species Hinde's Babbler (*Turdoides hindei*) in a highly fragmented environment and performed detailed land use mapping along the Nzeuu River in East Kenya. We measured the time the birds spent in thicket patches, which differed in their habitat setting: pristine versus surrogate vegetation, different habitat size and different edge-size-ratio. Further, we identified areas of potential conflicts between human activities and our target species. Four *T. hindei* family groups were observed, mostly in invasive *Lantana camara* patches. Habitat size and edge-size-ratio of the respective thicket patches revealed a significant impact on the duration of stay of *T. hindei* with disproportional longer stays in small habitat patches and in patches with larger edge-size-ratio than in rather large patches or thickets with small edge-size-ratio. The 75%- and 95%-kernels showed no overlap between family groups and only marginal overlap with the 75%-kernels of human disturbances. Our data show that the invasive *L. camara* thickets (even small patches with high edge-size ratio) are a suitable surrogate habitat for the Kenyan endemic for *T. hindei*. The birds avoid open land likely because of higher predation pressure outside of thickets. Limited overlap between zones of human activity and the occurrence of *T. hindei* may be a response either to lacking thickets in these areas, and/or an adaptation to elevated hunting pressure in these zones. Therefore, the transformation of thickets into open agricultural land has a negative impact on the persistence of *T. hindei*. For the preservation of the remaining *T. hindei* family groups in our study area we suggest to establish an interconnected network of thicket patches, as the high mobility of the species allows persistence in such patchy environments.