

Abstract

Invasive species in Africa have important impacts on food security and biodiversity conservation. African floodplains in arid areas are critical wildlife habitats in addition to crop production and dry season livestock grazing. The study aimed to understand the patterns of spread of the invader *Prosopis juliflora* in a typical African floodplain characterised by both multiple dispersers and habitats. Data was collected on faecal seed density, establishment and vegetation composition, and subjected to non-parametric tests and regression analysis. The results showed that both livestock and wildlife species played a critical role in dispersal of *Prosopis juliflora*, especially yellow baboons (*Papio cynocephalus*), bush pigs (*Potamochoerus larvatus*), donkeys and goats. Habitat preference of wildlife dispersers and livestock herding patterns influenced the spatial pattern of invader seed influx. Establishment of *Prosopis juliflora* was enhanced by ecological disturbance such as in rested crop fields and habitats outside conservation areas as compared to those inside. Establishment was also higher inside the floodplain than outside probably due to higher seasonal soil resources. Lastly, indigenous woody species diversity declined significantly as the density of *Prosopis juliflora* increased. We conclude that patterns of spread of *Prosopis juliflora* were related to ecological disturbances, type of disperser and floodplain effect.