

Shoebill *Balaeniceps rex* foraging behaviour in the Bangweulu Wetlands, Zambia

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Abstract

Shoebills (*Balaeniceps rex*) are endemic to large, well-vegetated wetlands in central-eastern Africa. Populations are believed to be declining throughout their range and knowledge about their ecology, behaviour and distribution is vital for their effective conservation. In this study we quantified and explored Shoebill foraging behaviour across habitat types and seasons through behavioural observations in the Bangweulu Wetlands, Zambia. Behaviours associated with foraging were standing, walking and flying. Shoebills spent 85% of their time engaged in low-energy activities, mainly by standing still and preening. They caught on average one prey every 8.3 h and catfish *Clarias* spp. were the most common prey caught (71% of prey in 170.1 h observed). Despite small sample sizes ($n = 17.7$ h during the breeding season), we found an indication that the proportion of successful strikes was higher during the breeding season (five of seven strikes successful) compared to non-breeding (16 of 70 strikes successful). This study provides useful information for effective conservation management, by showing the importance of catfish as prey for Bangweulu Shoebills, the possible increased prey capture during the breeding season, and indicating the importance of the two habitat types: floating vegetation and flooded grassland (capture rates 0.10 and 0.29 prey h⁻¹, respectively).