
Diet composition and habitat use of wintering Montagu's Harriers in West Africa

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Abstract

Diet studies are an important tool to gain knowledge on prey species, especially in raptor research. The Montagu's Harrier *Circus pygargus* is well studied during the breeding season in many European countries. Especially in France, Spain, and the Netherlands, intensive diet studies are part of the species' monitoring. However, much less is known about diet composition and habitat use of harriers during wintering in the Sahelian zone. Here, we describe the diet composition of Montagu's Harriers on a large spatial scale, ranging from Senegal in the West to Niger in the East. More than 2000 regurgitated pellets were collected between 2006 and 2016 on roosts in Niger, Burkina Faso, Mali, and Senegal. The majority of prey remains could be determined to species level. The main part of prey remains consisted of grasshoppers and other insects, in contrast to the breeding period where small mammals and songbirds form the main prey of Montagu's Harriers. Using individual GPS-tracks of 36 Montagu's Harriers over six winters, we investigate the relation of prey diversity and habitat use. We discuss differences in diet composition between roosts, in relation to longitude, landscape, and habitat characteristics of the surrounding feeding areas.

Keywords: Montagu's Harrier, diet, grasshoppers, habitat use

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