Hooded Vultures *Necrosyrtes monachus* in Fajara, coastal area of The Gambia, between 1978 and 1981

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Summary

A 33-month study, 1978 to 1981, in Fajara, The Gambia, showed that Hooded Vultures *Necrosyrtes monachus* were resident on a 24 ha campus (seen on 98.2 % of 831 observation days). The numbers of Hooded Vultures seen during 79 standard walks varied between 0 and 34 (average 2.07, 95 % confidence interval 1.19–2.97). There was little monthly variation in numbers, but four significant termite emergences resulted in up to 34 Hooded Vultures attracted to feed.

Résumé

Les Vautours charognards *Necrosyrtes monachus* à Fajara, region côtière de Gambie, entre 1978 et 1981. Une étude sur 33 mois, de 1978 à 1981, à Fajara, Gambie, a montré que le Vautour charognard *Necrosyrtes monachus* était résident sur un campus de 24 ha (vu dans 98,2 % des jours d'observation). Le nombre des Vautours charognards aperçus lors des 79 parcours-type a varié de 0 à 34 (moyenne 2,07, intervalle de confiance 95 % 1.19–2.97). Il y a eu peu de variations dans les nombres mensuels, mais quatre envols significatifs de termites ont attiré jusqu'à 34 Vautours charognards venus se nourrir.

Introduction

Ogada & Buij (2011) reported that Hooded Vulture *Necrosyrtes monachus* populations are in rapid decline across Africa, and have decreased significantly across the continent over the past 40–50 years (mean decline 62%; range 45–77%). However, they note that data from several countries, including The Gambia, are limited. Barlow & Fulford (2013) documented the numbers of Hooded Vultures along a 10 km driven transect in a coastal area of The Gambia during a seven-month study in 2005, as part of a process to create a baseline for the future assessment of

population trends in the country. Gore (1990) described the Hooded Vulture as an abundant resident throughout The Gambia, but without quantitative data. This paper provides data that support Gore's assertion that Hooded Vultures were abundant in an area of peri-urban parkland, in coastal Gambia, between 1978 and 1981.

Study area and methods

A detailed study of avifauna of the 24 ha campus of the Medical Research Council, in Fajara, coastal Gambia, was carried out between 1978 and 1981. The campus was a mixture of low density housing and laboratories, in a parkland setting with gardens and a variety of trees in open grassed areas. The campus (13°47′37″N, 16°68′84″W) is in the same urban area as one section of the transect monitored by Barlow & Fulford (2013), which ended at a point (Serrekunda General Post Office) *c.* 2 km from the study campus.

Between June 1978 and the end of June 1981 (except for the four months December 1979 to March 1980) two sets of data were collected during a total of 33 months. The first is a record of the presence of a species at any point in the campus during a day. I lived, worked and regularly walked the campus, and the number of observation days per month varied between 17 and 27 (mean 25) totalling 831 days. The second data set records the numbers of all species counted on a consistent 1.5 km circular walk around the campus between 17h00 and 18h30, as an index of the bird population on the campus. Seventy-nine counts were taken during the 33 months of the study (mean 2.4 per month). Both data sets included birds perched or flying over the campus; vultures in flight but beyond the borders of the campus were not counted. In addition, observations were recorded of the numbers of Hooded Vultures attracted to the campus by sudden emergences of alate termites. The risk of double counting Hooded Vultures was minimised by taking the following precautions: Hooded Vultures flying high over the campus were counted once when the first flying one was seen, and flying birds were not recorded again during that count; birds seen in trees or on the ground rarely moved during a count and their size and the open aspect of the campus minimised any risk of counting the same birds more than once, because it was easy to see when a vulture took flight.

Results

Hooded Vultures were seen on or over the study campus on 816 of the 831 days (98.2 %) for which presence or absence was recorded. One Hooded Vulture nest about forty feet up in a *Casuarina* tree on the campus was attended throughout the study period.

During the 79 circular walks, 157 Hooded Vultures were seen (mean 2.07 per walk, 95 % confidence interval 1.19–2.97) (Fig. 1).

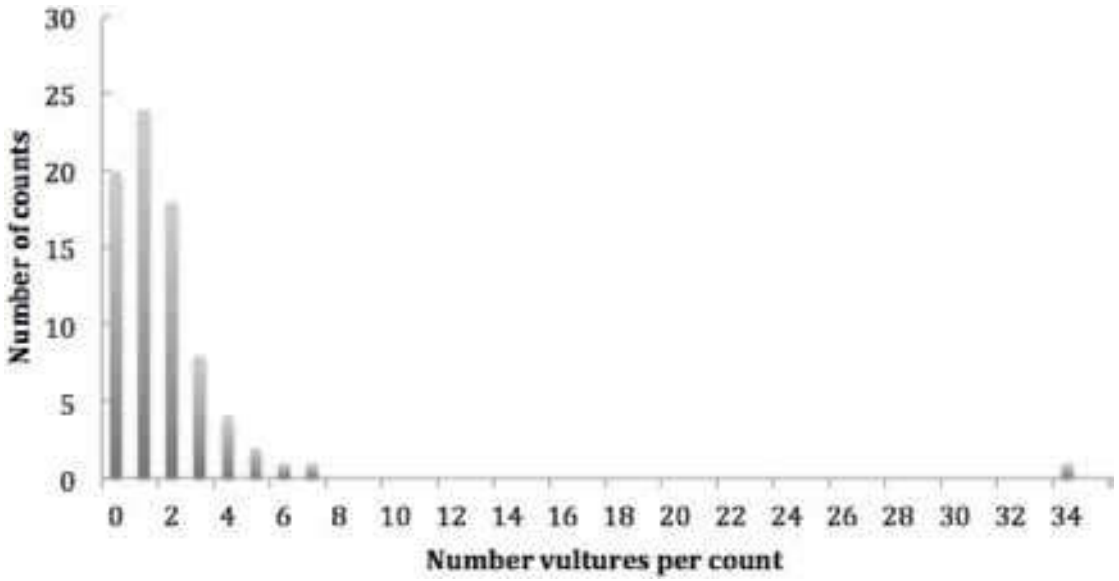

Figure 1. Numbers of Hooded Vultures seen during 79 circular walks.

No Hooded Vultures were seen during 20 of the 79 circular walks (25.3 %), although Hooded Vultures were seen on the campus at other times during 19 of those 20 days. Twelve (60 %) of the 20 zero counts were during a wet season and eight (40 %) during dry seasons (not statistically significant).

The 79 counts show little annual variation in numbers (Fig. 2), the only exception being in May 1979, when one count (out of three that month) included 34 vultures

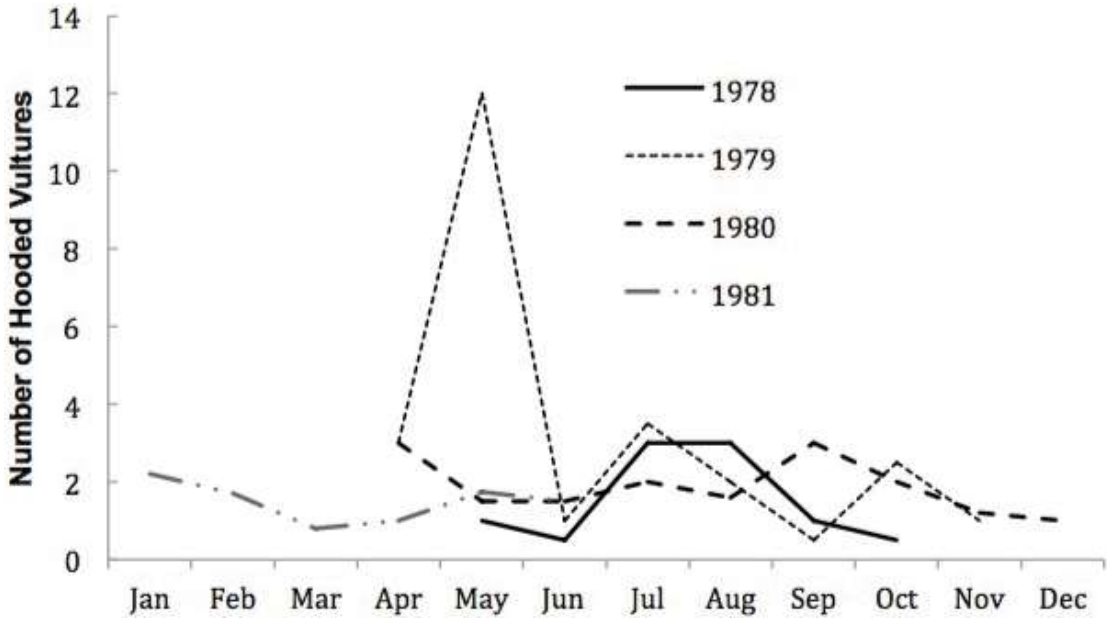

Figure 2. Monthly means of numbers of Hooded Vultures counted during 79 circular walks over 33 months.

recorded 90 minutes after a termite emergence (the other two counts that month were both of single birds).

The emergence of huge numbers of large alate termites (species unknown) was observed four times during the 33 month study, after short periods of rain early in the wet season (17 Hooded Vultures attracted to an emergence on 28 Jun 1978; 27 on 2 Aug 1978; five at a smaller and shorter lived emergence on 13 Jun 1980; two separate groups of 24 and 10 Hooded Vultures observed on the ground during a circular walk, 90 min. after a large termite emergence on 10 May 1979). On each occasion the event was relatively short (< 30 min.). Typically, vultures attending emergences lumbered about on the ground with neck outstretched and taking the emerging termites on the ground whilst a few chased termites as they took flight by flapping up to 1 m off the ground. The termites were large and not agile, and the Hooded Vultures caught many.

Discussion

Hooded Vultures were resident on the campus throughout the study, and were recorded on 98.2 % of observation days, suggesting that their absence during 20 of the 79 circular walks was probably caused by their having been attracted to feeding opportunities away from the campus during the time the 20 counts were taken.

Barlow & Fulford (2013) reported 2.91 Hooded Vultures per km of their 10 km transect through a nearby area in 2005, and concluded that the species was abundant in coastal Gambia. The data presented here show an average of 2.07 birds within the 24 ha campus over a period of 33 months, with numbers varying between none and one count of 34. Whilst the methods used in the two studies were different, and do not allow direct comparison, the numbers of Hooded Vultures in 1978–81 and 2005 seem broadly comparable.

There was little seasonal variation in numbers except in May 1979, owing to one count of 34 vultures recorded immediately after a termite emergence.

The number of Hooded Vultures at a given location is significantly influenced by feeding opportunities, including those created by human activities, and Hooded Vulture is not known to be territorial (Brown *et al.* 1982). With an average Hooded Vulture population on the 24 ha campus of two birds, the observations of 5, 17, 27 and 34 Hooded Vultures after termite emergences demonstrate the mobility of the vultures, and add weight to the conclusion that the Hooded Vulture was an abundant resident in the area during the period 1978–81. There was one Hooded Vulture nest on the campus throughout the study period but more recently there have been up to seven nests there (C.R. Barlow pers. comm.). Furthermore the presence of a fish landing site near the campus (which was not present in 1978–81) currently attracts significant numbers of Hooded Vultures (C.R. Barlow pers. comm.). The evidence, though anecdotal, is that Hooded Vultures have been abundant in the coastal area of The Gambia during the past 40 years, and may have increased in numbers during this

period. The human population of The Gambia increased from 569,000 in 1978 to 641,000 in 1981 and 1,882,000 in 2013 (<www.populstat.info/Africa/gambia> consulted 27 Jan 2015), with intense urbanisation within the area of these two studies, and a consequent increase in urban waste, which may have favoured Hooded Vultures.

The decrease in Hooded Vulture populations in other African countries has been attributed to the killing of vultures for bush meat, the installation of pylons and high-voltage power lines, and the introduction of cleaner facilities for processing fish and livestock (Odino *et al.* 2014, Ogada *et al.* 2015). As information on Hooded Vulture populations in The Gambia continues to be collected it would be useful to add to the studies assessments of food sources and threats.

Acknowledgments

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