

Results from an avifaunal survey along the Corubal and Fefine rivers, Guinea-Bissau

Resultados de um censo de aves realizado ao longo dos rios Corubal e Fefine, Guiné-Bissau

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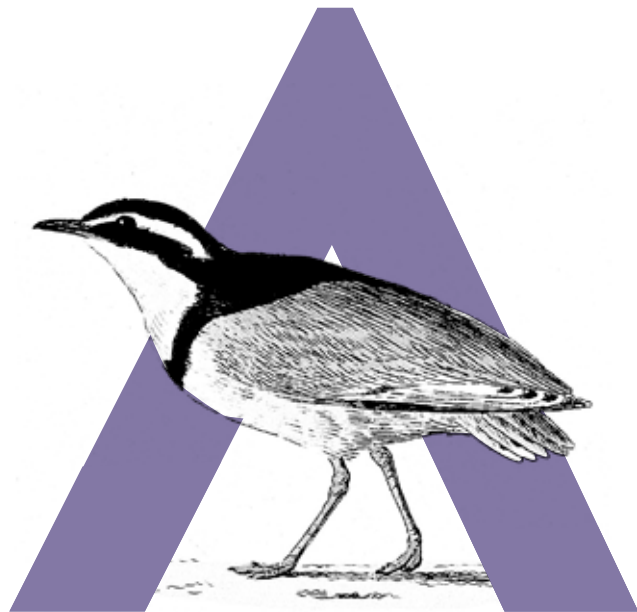
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ABSTRACT

A waterbird survey was carried out along 122 km of the Corubal and Fefine rivers, eastern Guinea-Bissau, on 6-12 December 2018. Several river specialists were recorded, such as Pel's Fishing Owl *Scotopelia peli*, White-backed Night Heron *Calherodius leuconotus*, Egyptian Plover *Pluvianus aegyptius* and White-headed Lapwing *Vanellus albiceps*. Other noteworthy river species present in the area include White-crested Tiger Heron *Tigriornis leucolopha* and Rock Pratincole *Glareola nuchalis*. Some wetland and coastal birds that are common elsewhere in the country were surprisingly rare or absent (for example African Fish Eagle *Haliaeetus vocifer* and Osprey *Pandion haliaetus* were both completely absent).

Keywords: Boé, Dulombi, Guinea-Bissau, *Pluvianus*, *Scotopelia*

RESUMO

Foi realizado um censo de aves aquáticas ao longo de 122 quilómetros dos rios Corubal e Fefine, no leste da Guiné-Bissau, de 6 a 12 de Dezembro de 2018. Foram detetadas várias aves típicas de rios, como o Corujão-pesqueiro *Scotopelia peli*, a Garça-noturna-de-dorso-branco *Calherodius leuconotus*, a Ave-do-crocótilo *Pluvianus aegyptius* e o Abibe-de-gola-branca *Vanellus albiceps*. Outras aves especialistas de rios que ocorrem na zona incluem a Garça-tigre *Tigriornis leucolopha* e a Perdiz-do-mar-de-colar-branco *Glareola nuchalis*. Várias espécies típicas de zonas húmidas, nomeadamente de zonas costeiras, que são comuns no resto do país, revelaram-se surpreendentemente raras ou ausentes (por exemplo, não se registou a presença de qualquer exemplar de Pigargo-africano *Haliaeetus vocifer* ou de Guincho/Águia-pesqueira Osprey *Pandion haliaetus*).

Palavras-chave: Boé, Dulombi, Guiné-Bissau, *Pluvianus*, *Scotopelia*

Introduction

Guinea-Bissau is a small country in West Africa (36,125 km²) but harbours some interesting ornithological values. Its coastal wetlands provide one of the major wader wintering grounds in the East Atlantic Flyway, as well as a habitat for many other waterbirds such as herons, waterfowl and migratory terns (Dodman et al. 2004, Dodman & Sá 2005, Correia et al. 2019). The country is also noted for its important populations of globally endangered vultures (Henriques et al. 2017, 2018). The avifauna of freshwater systems in the interior of Guinea-Bissau has been scarcely surveyed (but see Araújo 1994, Dodman et al. 2004), which contrasts with numerous studies for the rich coastal systems (Dodman & Sá 2005). The aim of the present study was to bring more information on the river bird fauna of two important rivers of the interior of the country.

Methods

From 6 to 12 December 2018, we navigated 90 km of the Corubal River in the regions of Cabuca and Tchetché and 32 km of the lower Fefine (a tributary of the

Corubal) mostly within the Boé National Park, and also partly within the Dulombi National Park, using three small and light boats with 8CV engines (Fig. 1). Where the river was broader, we always had at least one boat sailing close to each of the two margins, to maximise the probability of detecting birds. There were always two observers fully dedicated to counting birds, while a third recorded habitat characteristics. These observers were free from tasks related to manoeuvring and navigation. Counts were carried out while sailing downstream in the Corubal and upstream in the Fefine. Sampling outside transects was opportunistic, mostly around campsites. The rainy season had occurred between mid-May and mid-November and water levels were high, with less than 0.1% of the river margins presenting sand banks or exposed rocks. Marginal vegetation was dense and tall everywhere, dominated by trees or tall bushes, with branches generally overhanging the water. Water flow was generally slow and in-water visibility between 0.5 and 1.5 m. Bird numbers were low (see Table 1), but the speed of travel (generally $c.10 \text{ km.h}^{-1}$) and the dense vegetation meant that species that predominantly hide in the

vegetation (most kingfishers Alcedinidae, some herons Ardeidae, African Finfoot *Podica senegalensis*) must have been largely

overlooked. Birds that typically perch in the open (including on treetops or side branches) were probably efficiently surveyed.

Figure 1- Eastern Guinea-Bissau, with the surveyed sectors of the Corubal and Fefine rivers indicated in red. The Fefine runs towards the northwest, meeting the Corubal where the two red lines join.

Figura 1 - O leste da Guiné-Bissau, com os setores dos rios Corubal e Fefine que foram recenseados assinalados a vermelho. O Fefine corre em direção ao noroeste, desaguando no Corubal onde as duas linhas vermelhas se juntam.

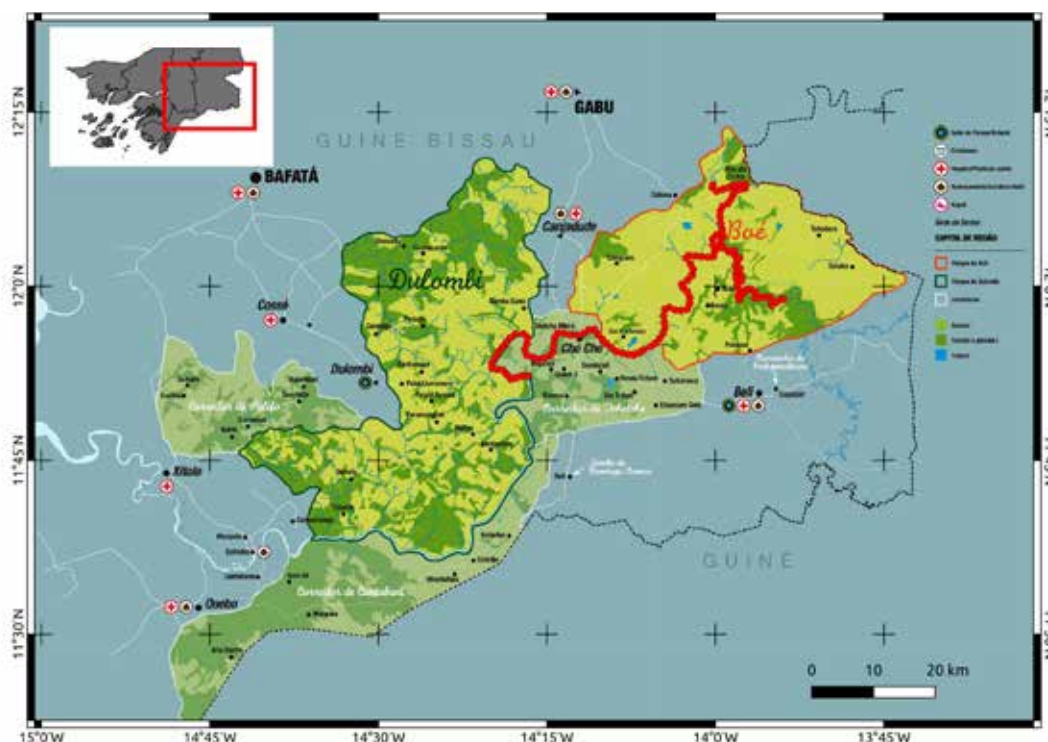


Table 1- Waterbirds recorded along the Corubal and Fefine river transects (Guinea-Bissau), 6-12 December 2018, with total numbers and, in parentheses, the number per km of surveyed river.

Tabela 1 - Aves aquáticas recenseadas ao longo dos rios Corubal e Fefine (Guiné-Bissau) entre 6 e 12 de Dezembro de 2018, com números totais e, entre parêntesis, o número por quilómetro de rio percorrido.

SPECIES	COMMON NAME	CORUBAL (90 Km)	FEFINE (32 Km)	TOTAL
<i>Podica senegalensis</i>	African Finfoot	3 (0.03)	3 (0.09)	6 (0.05)
<i>Ciconia microscelis</i>	African Woollyneck	-	1 seen outside transects	-
<i>Bostrychia hagedash</i>	Hadada Ibis	8 (0.09)	17 (0.5)	25 (0.20)
<i>Calherodius leuconotus</i>	White-backed Night Heron	2 seen outside transects	-	-

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SPECIES	COMMON NAME	CORUBAL (90 Km)	FEFINE (32 Km)	TOTAL
<i>Nycticorax nycticorax</i>	Black-crowned Night Heron	-	3 seen outside transects	-
<i>Ardea cinerea</i>	Grey Heron	4 (0.04)	0 (0.00)	4 (0.03)
<i>Ardea melanocephala</i>	Black-headed Heron	2 (0.02)	0 (0.00)	2 (0.02)
<i>Ardea purpurea</i>	Purple Heron	0 (0.00)	1 (0.03)	1 (0.01)
<i>Bubulcus ibis</i>	Cattle Egret	17 (0.19)	4 (0.13)	21 (0.17)
<i>Butorides striata</i>	Green-backed Heron	1 (0.01)	0 (0.00)	1 (0.01)
<i>Egretta gularis</i>	Western Reef Egret	2 (0.02)	0 (0.00)	2 (0.02)
<i>Scopus umbretta</i>	Hamerkop	4 (0.04)	0 (0.00)	4 (0.03)
<i>Microcarbo africanus</i>	Long-tailed Cormorant	22 (0.24)	1 (0.03)	23 (0.19)
<i>Anhinga rufa</i>	African Darter	6 (0.07)	0 (0.00)	6 (0.05)
<i>Burhinus senegalensis</i>	Senegal Thick-knee	9 (0.10)	0 (0.00)	9 (0.07)
<i>Pluvianus aegyptius</i>	Egyptian Plover	5 (0.06)	0 (0.00)	5 (0.04)
<i>Vanellus albiceps</i>	White-headed Lapwing	7 (0.08)	0 (0.00)	7 (0.06)
<i>Rostratula bengalensis</i>	Greater Painted-snipe	-	1 seen outside transects	-
<i>Actitis hypoleucos</i>	Common Sandpiper	9 (0.1)	3 (0.09)	12 (0.10)
<i>Tringa ochropus</i>	Green Sandpiper	1 seen outside transects	-	-
<i>Gypohierax angolensis</i>	Palm-nut Vulture	16 (0.18)	0 (0.00)	16 (0.13)
<i>Scotopelia peli</i>	Pel's Fishing Owl	1 (0.01)	1 (0.03)	2 (0.02)
<i>Alcedo quadribrachys</i>	Shining-blue Kingfisher	2 (0.02)	4 (0.13)	6 (0.05)
<i>Ceryle rudis</i>	Pied Kingfisher	1 (0.01)	0 (0.00)	1 (0.01)
<i>Corythornis cristatus</i>	Malachite Kingfisher	3 (0.03)	1 (0.03)	4 (0.03)
<i>Halcyon malimbica</i>	Blue-breasted Kingfisher	12 (0.13)	4 (0.13)	16 (0.13)
<i>Megaceryle maxima</i>	Giant Kingfisher	5 (0.06)	4 (0.13)	9 (0.07)

Results

The results of our surveys are presented in Table 1.

Discussion

Although apparently not rich in numbers of species and individuals, our results revealed a bird community with some interesting features. Some specialised river species were observed, and may be more numerous than the few records suggest, as they often keep well hidden. At least four different Pel's Fishing Owls *Scotopelia peli* were found along the Fefine (three outside transects), and one other individual along the Corubal. Only two White-backed Night Herons *Calherodius leuconotus* were seen (in the evening, outside the transect), but they must have been largely overlooked because they are nocturnal birds and may be relatively common (we have also seen them a few kilometres downstream the study area, at Saltinho). We did not detect any White-

crested Tiger Herons *Tigriornis leucolopha*, another river specialist, although this inconspicuous species is known to occur near Tchetche (H. Monteiro pers. comm.).

Palm-nut Vultures *Gypohierax angolensis*, which are very common elsewhere in the country (Carneiro et al. 2017, Henriques et al. 2017) were scarce (but nests and nest building were observed), which might be linked to the very low density of palms *Elaeis guineensis* (estimated at <1 per ha). Nevertheless, as transects were often carried out in the middle of the day, we may have missed some individuals hidden in the canopy and actual densities may be slightly higher. Waders were very scarce, which is not surprising given the almost complete absence of exposed rock, sand or mud. Possibly some increase in number later in the season. For example, we have seen Egyptian Plovers *Pluvianus aegyptius* at the Tchetche ferry landing point previously, but none were recorded there this time. Herons and egrets were similarly scarce, and may increase in numbers before the following raining season. Of note was the complete

Figure 2- Pel's Fishing Owl *Scotopelia peli*, lower Fefine, Guinea-Bissau, 7 December 2018 (credits Paulo Catry).

Figura 2 - Corujão-pesqueiro *Scotopelia peli* no baixo Fefine, Guiné-Bissau, em 7 de Dezembro de 2018 (crédito Paulo Catry).



absence of African Fish Eagles *Haliaeetus vocifer* and Ospreys *Pandion haliaetus*, which are common along the coast (Henriques et al. 2017) and also occur at some freshwater lakes. Another river species that was not detected is the Rock Pratincole *Glareola nuchalis*, which regularly breeds further down the Corubal, in the Saltinho-Cusselinta area (pers. obs.).

Despite extensive signs of slash-and-burn agriculture and fishing activities, the surveyed sections of the river are still relatively wild and well conserved, and seven species of primates were detected, including 3-4 groups of chimpanzees *Pan troglodytes*, numerous baboons *Papio papio* and colobus *Piliocolobus badius* and *Colobus polykomos*. Therefore, human presence or habitat degradation are presumably not responsible for the low number of birds recorded. More studies are needed, with counts along the annual cycle (and perhaps different methodologies, such as nocturnal listening stations), to further clarify to what extent the scarcity of birds reported in our study is typical of these ecosystems, and the true status of the most interesting river specialists.

Acknowledgements

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