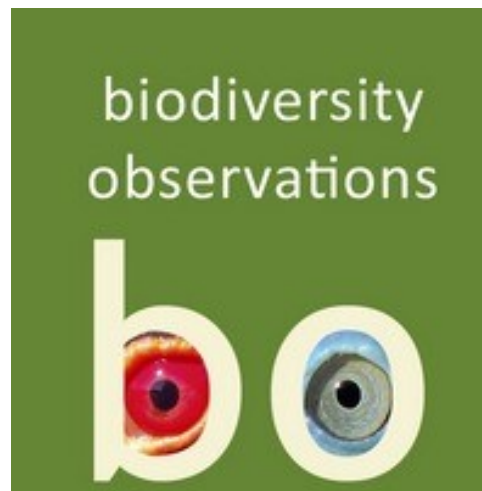


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Ornithology

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Duncan R. McKenzie*

Terrestrial Ecologist: Digital Earth, Mbombela, South Africa

*duncan@digitalearth.co.za

Abstract

This paper reports the first observations of Southern Carmine Bee-eater *Merops nubicoides* breeding in the Limpopo drainage system, in Botswana, and suggests that it is likely that this species also breeds on the banks of the Limpopo River, on the South African side.

The Southern Carmine Bee-eater *Merops nubicoides* is a breeding resident in Botswana, with all known breeding localities found in the far north in the Okavango, Chobe, Kwando and Savuti systems (Fry et al. 1992, Hockey et al. 2005). Egg-laying dates vary from September to October in Botswana and unusually in November (Fry et al. 1998, Hockey et al. 2005). The nestling period is estimated to be be-

tween 29 and 31 days with most young fledged by early December before the onset of the rain season (Hockey et al. 2005).

On 5 December 2019, I was walking with a group of 12 birding students in the Motloutse River bed in the Mashatu Game Reserve in far eastern Botswana, about 13 km west of the Pont Drift border post (Figure 1). Our group stopped at a known breeding colony of White-fronted Bee-eater *Merops bullockoides* to observe the birds nesting. This large colony is situated in the c. 5 m high bank at the confluence of the Motloutse and Limpopo Rivers on the border of Botswana and South Africa (Figure 2). Our attention was quickly drawn to the vocalisations of Southern Carmine Bee-eaters overhead. These birds are annual non-breeding visitors to Mashatu (pers. obs.) so their presence was not questioned. However, some of the birds appeared to be carrying food (Figure 3) and, once followed, were found to be flying up to the White-fronted Bee-eater colony and landing in some overhanging bushes (Figure 4). The birds then appeared to fly up to the nest holes in the banks, but no feeding was observed due to the distance between our group and the colony. We suspected breeding and returned to the colony on 9 December.

On our return we sat in the riverbed adjacent to the colony for about 30 minutes, at a distance of c. 60 m so as not to disturb the birds. A flock of c. 25 adult Southern Carmine Bee-eaters was observed perched in a large *Philenoptera violacea* tree on the top of the river bank, c. 30 m away from the nest holes we suspected were active. Within a few minutes of waiting, adult birds arrived at the nest bank carrying prey, mostly cicadas (Figure 5) and were observed carrying food to the mouth of the holes (Figure 6). The adult birds then flew off after depositing food into the cavities, strongly suggesting breeding. The bank also contained many active White-fronted Bee-eater nests (Figure 7) and it was initially not obvious whether they were feeding their own chicks or those of White-fronted Bee-eaters, until a pale-plumaged near-fledgling Southern Carmine Bee-eater was seen peering out of a hole. This confirmed that the adults were indeed feeding their own chicks (Figure 8). At least four active nests were seen during our short stay, although more may have been present. Near-fledglings were seen peering out of at least three of these nests.

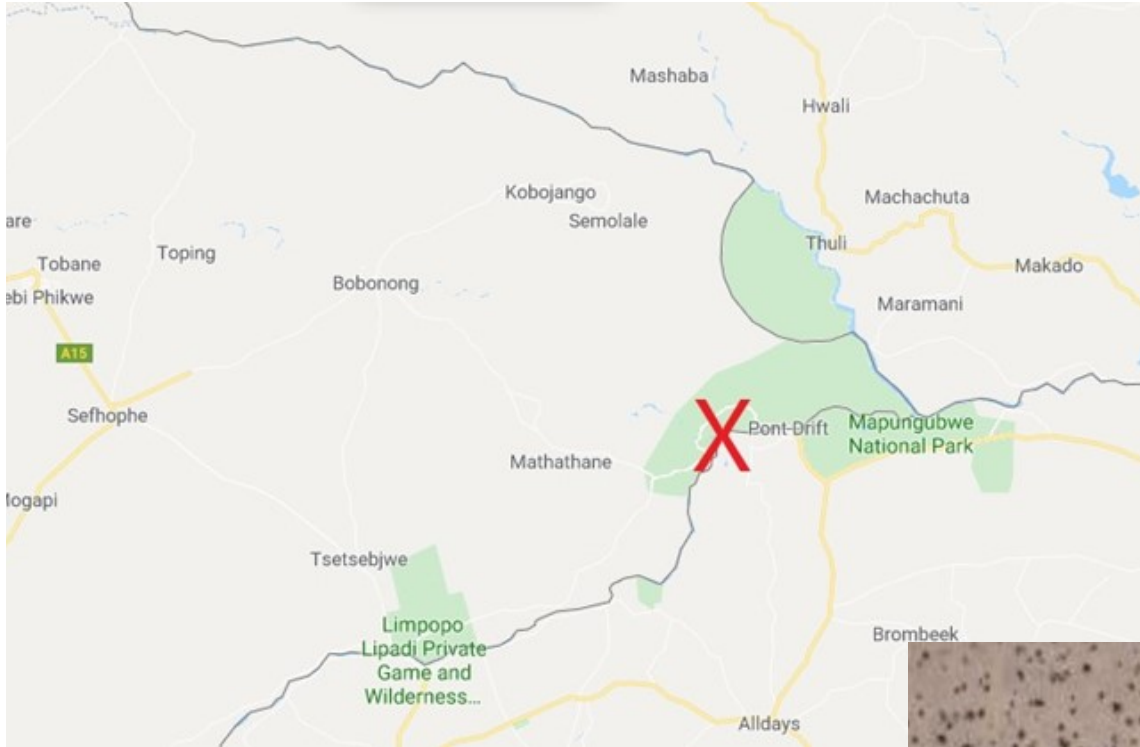


Figure 1: Locality of Mashatu Game Reserve within Botswana (© Google Earth maps).

Figure 2: Locality of the Southern Carmine Bee-eater colony (© Google Earth maps).





Figure 3: Adult Southern Carmine Bee-eater carrying food (cicada).



Figure 4: Adult Southern Carmine Bee-eater waiting at the nest holes with food.



Figure 5: Adult Southern Carmine Bee-eater in flight with food.



Figure 6: Adult Southern Carmine Bee-eater delivering food to the nest hole.



Figure 7: Adult White-fronted Bee-eater delivering prey to an adjacent nesting hole.



Figure 8: Immature Southern Carmine Bee-eater peering out of its nest hole, awaiting the arrival of food.

On our final visit to the colony on 12 December, access to the bank from the riverbed was not possible because the river had started flowing strongly. A number of adults were observed around the bank but we were unable to determine if the chicks had fledged yet.

This seems to be the first confirmed breeding record of Southern Carmine Bee-eaters outside of the Zambezi drainage system and the first within the Limpopo drainage system. In Botswana it breeds in the Okavango, Linyanti and Chobe drainage systems; this record is thus the first record of breeding in Botswana away from these river systems (C Brewster pers. comm.). Additional colonies may be present along the Motloutse and Limpopo Rivers, and it is likely that Southern Carmine Bee-eaters also breed in the banks of the Limpopo River on the South African side of the border.


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*Paper edited by Megan Loftie-Eaton
Biodiversity and Development Institute*



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