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## THICK-BILLED WEAVER RECOVERY AND NEW ATLAS RECORD FOR ZAMBIA

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Thick-billed Weavers *Amblyospiza albifrons* are found in reedbeds and riparian forest along streams or dams, or in *Typha* and papyrus in floodplains (Dowsett *et al.* 2008). In Zambia they appear to have spread since the 1970s, perhaps due to the increasing number of farm dams (Dowsett *et al.* 2008). Certainly within South Africa, a similar pattern of range expansion due to habitat changes, such as the presence of dams, parks and artificial wetlands, has occurred (SABAP2; Underhill 2012).

On 13 January 2012, Rory McDougall stopped to pick up a bird that flew into his vehicle from the long roadside grass on the Great North Road (16.023°S 27.955°E) in Zambia. The road kill was an adult male Thick-billed weaver, with ring 4A46849. This bird was ringed as an immature on 7 July 2008 (Fig. 1) by Lizanne Roxburgh on Huntley Farm (15.019°S 28.147°E), 111 km north of the ring recovery site (Fig. 2). This is an interesting recovery, being the second longest movement known for the species. The longest was an immature bird that had moved 130 km along the Eastern Cape coast in South Africa.

In addition to the notable distance involved, the record was also the first for the half degree atlas square (Dowsett *ibid*.). Furthermore, the species has been recorded only sporadically in adjacent areas bordering the lower Kafue Flats. Enquiries about dam construction for irrigation of farmland along the Kaleya River, a tributary of the Kafue River, revealed that the first large one was built in 1982 with two subsequent dams built in the mid and late 1980s, all within 20 km of the recovery site. Thick-billed weavers have apparently bred in the reed beds adjacent to these dams recently, with nests seen in 2011 and 2012.

The movements of this species remain poorly understood, though they are generally thought to be no more than local, and are perhaps mainly attributable to dispersal during the rains to breed when suitable habitat and food sources are more widespread. Conversely, in the dry season, when not breeding, birds are known to retreat to more permanent wetlands where they may gather in large groups of up to 300 (Fry *et al.* 2004, Craig 1997, Dowsett *ibid.*). Such habitats are likely to be more common in the north of Zambia where rainfall is higher, thus it is possible that there is a slight southward bias to dispersive movements. However, there is no evidence as yet for any regular migratory movement.

It is perhaps worth noting that an atlas record from an atypical location in the Middle Zambezi Valley nearby (Sinamalima, 1727B) was at a similar time of year, in December. Being at the beginning of the breeding season, this is perhaps the time when birds are most likely to be encountered away from areas of regular occurrence, as they search for new breeding sites.

The crop of the dead weaver was full of round seeds with a diameter of 3.2 mm. These have been identified as *Scleria schimperiana*, a short-lived annual sedge that grows in shallow temporary pools (M. Bingham, pers. comm.).

Table 1 compares the biometrics of 4A46849 at the time of ringing with the time of recovery. Unsurprisingly, the wing length was larger once the bird had reached maturity. This pattern was found by Hanmer (2002) in Malawi, where adult wing lengths were 4-6 mm longer than those of juveniles.

Sixteen other Thick-billed Weavers were caught and ringed at the same time as 4A46849. All birds, except one, were first-year birds, based on the thickened yellow gape, and the colour of the bill

(Laycock, 1984) (Figure 1). The absence of freshly moulted primaries was an additional clue, as first-year birds do not undergo a primary moult, whereas adults undergo a post-breeding moult between February and July (Laycock, 1982; Hanmer, 2002). None of the weavers caught at Huntley Farm was actively moulting any wing feathers, but all, except one, were undergoing body moult.

Table 1. Measurements of 4A46849 at ringing and recovery

	Wing (mm)	Bill (mm)	Mass (g)
Ringing (Immature)	94	21.7	45
Recovery (Adult)	97	22.1	49

Different field guides provide contradictory information on bill colour of female and immature Thick-billed Weavers. For example, in Roberts VII, the bill of an adult female is described as horn-coloured, while the juvenile is described as having the bill initially yellow, becoming darker (Oschadleus, 2005). Maclean (1993) describes the bill of the immature as dark horn, while the bill of female is straw-yellow. Sinclair and Ryan (2003) describe the female and juvenile as having a paler bill (than the male). This led to some confusion when we attempted to age and sex the Thick-billed Weavers that we caught.

Laycock (1982) provides details on how to age and sex immature birds, based on bill colour, moult and size, and describes the progression in bill colour from nestling to adult in both sexes in detail. Nestlings and first-year birds have entirely yellow bills. In males, bill colour changes from yellow to entirely dark by the second year. Based on a wing length of 97 mm (Hanmer 2002), the bird in Figure 1 is a male. Lack of evidence for any recent primary feather moult, as well as the lack of any dark adult feathers on the body, indicates that this is a first-year bird. The bird is between 4 and 8 months old, as the breeding season extends from November to March in Zambia (Dowsett et al 2008), but is likely about 5 months old, based on the peak breeding season being in February.

**Figure 1.** Thick-billed Weaver immature male showing the yellow colour of the bill, which is darkening, and the remnants of a swollen yellow gape.



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#### Figure 2. Movement of weaver Thick-billed Weaver 4A46849. green dot – ringing locality red cross – recovery locality

