Grosbeak Weaver Amblyospiza albifrons preying on Common Reed Frog Hyperolius viridiflavus, and a review of weaver (Ploceidae) predation on anurans

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Un Amblyospize à front blanc Amblyospiza albifrons capturant une grenouille Hyperolius viridiflavus, et un examen de la prédation des tisserins (Ploceidae) sur les anoures. Les tisserins (Ploceidae) se nourrissent généralement de graines et d'autres parties de plantes, ainsi que de diverses espèces d'invertébrés. Nous décrivons un cas apparent de prédation par un Amblyospize à front blanc Amblyospiza albifrons sur une grenouille Hyperolius viridiflavus au Rwanda et passons en revue la littérature limitée sur la prédation des tisserins sur les anoures. À ce jour, ce comportement n'a été signalé que chez cinq des quelque 118 espèces de tisserins dans le monde.

Summary. Weavers (family Ploceidae) typically feed on seeds and other plant parts, and on various species of invertebrates. We describe an apparent case of predation by a Grosbeak Weaver *Amblyospiza albifrons* on a Common Reed Frog *Hyperolius viridiflavus* in Rwanda and review the scant literature on weaver predation on anurans. To date, this behaviour has been reported in only five of the world's *c*.118 species of weavers.

Many species of passerines that typically feed on plant parts and invertebrates capture and consume small vertebrates opportunistically (Poulin *et al.* 2001, Hendricks & Hendricks 2002, Lopes *et al.* 2005). Documenting atypical predatory events is important because it adds to knowledge of foraging behaviour of the predatory species and leads to a better understanding of the range of predator species that might attack a given species of prey (Hendricks & Hendricks 2002). Such documentation also provides support for the notion that passerines can play an important role as predators of vertebrates in some communities (Lopes *et al.* 2005).

Weavers (Ploceidae) consist of *c*.118 species that occur in various habitats throughout sub-Saharan Africa and from the southern Arabian Peninsula east across southern Asia to Indonesia west of Wallace's Line. They have a varied diet, but most species feed chiefly on seeds and other plant parts, and on various species of invertebrates (Craig 2010, Winkler *et al.* 2015). Here, we provide photographic evidence of a Grosbeak Weaver *Amblyospiza albifrons* preying on a frog. Five species of weavers have been reported to capture frogs on rare occasions. We review all cases known to us of predation on frogs by the five species of ploceids for which the behaviour has been reported.

On 6 December 2021 at 10.40 hrs, while photographing birds at a wetland in Nyandungu

Urban Wetland Eco-tourism Park (01°57'20"S 30°08'50"E), Kigali, Rwanda, WW observed a female Grosbeak Weaver land on a dried stalk of emergent vegetation. WW obtained four photographs in quick succession of the weaver but noticed that it was holding a frog in its right foot only when he looked at the LCD screen on his camera (Fig. 1). The weaver then grasped the frog in its bill (Fig. 2) and bashed it against its perch 3-4 times. The perch was slightly less than 1 m above the ground. Soon after the bird flew off with the frog in its bill, perhaps disturbed by WW's movements to obtain more photographs. The weaver exhibited no apparent difficulty when flying with the frog, either at the beginning or at the end of the observation. The photographs suggest the frog, which was later identified as a Common Reed Frog Hyperolius viridiflavus, was alive when the weaver arrived on the perch and thus had recently been captured. Because the weaver flew off before it attempted to ingest the frog, we cannot be certain that it consumed its prey, although we have no reason to believe that it did not intend to do so.

This observation constitutes the first published photographic evidence of Grosbeak Weaver predation on a frog. The only other report was by Baker (1992), who witnessed a female Grosbeak Weaver capture a small frog with its bill at a wetland in Tanzania, fly with it to a perch in emergent vegetation, tear it to pieces and consume





Figures 1–2. Female Grosbeak Weaver Amblyospiza albifrons with a live Common Reed Frog Hyperolius viridiflavus, Rwanda, 6 December 2021 (Will Wilson)

Amblyospize à front blanc *Amblyospiza albifrons*, femelle, avec une grenouille *Hyperolius viridiflavus* vivante, Rwanda, 6 décembre 2021 (Will Wilson)

the frog while holding it down with one foot (a photograph of this incident was taken but not published: D. Oschadleus *in litt*. 2022).

Four other species of weavers have been reported to consume frogs. Bates (1934: 700) mentioned that after heavy rains White-billed Buffalo Weavers Bubalornis albirostris 'joined Abdim's Storks [Ciconia abdimii], Pied Crows [Corvus albus], and Guinea-fowl [Numida meleagris] in pursuit of the recently awakened frogs that swarmed up out of the Tazza basin after the deluge.' In South Africa, Juan Sanabria obtained video footage of a male Spectacled Weaver *Ploceus* ocularis that perched on a horizontal branch and tore apart and consumed a small frog it had just captured (Craig & Bonan 2020). This species also is reported to eat geckos (Craig 2010). Craig (2010: 187) noted that stomach contents of the Black-billed Weaver P. melanogaster included 'insect fragments, fruits, seeds, and once a small frog.' In India, George (1973) observed several Baya Weavers P. philippinus capturing small frogs in a paddyfield, flying with them to an overhead powerline, then bashing them against the powerline before dismembering and swallowing them. Baya Weavers also have been reported to feed two species of lizards to their nestlings (Craig 2010).

Predation on frogs and other small vertebrates appears to be rare among weavers, but we suspect it has been under-reported and is slightly more common than the handful of records would suggest, especially among weaver species that frequent wetlands. We encourage field ornithologists, birdwatchers, and wildlife photographers to be vigilant for weavers taking vertebrate prey items, and to report such observations in the literature.

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