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How does a disabled bird cope with its disability?

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Although the majority of birds handled after being caught for ringing purposes are normal, on several occasions I have noticed one of a range of injuries or disfiguring growths on feet, legs, wings or head of a bird. I have wondered how extensive such an injury can be before it impacts on the bird's ability to function normally or survive.

In Afring News 34(2) van Stuyvenberg (2005) and Franke (2005) reported on how some birds with major injuries had apparently coped. Van Stuyvenberg reported on a Jackal Buzzard with one sightless eye; surely a predator at the top end of the food chain must require all its faculties to catch its prey to be able to sustain itself and allow it to procreate? The raptor in question was in good condition. Franke wrote about a severely disfigured Black-collared Barbet, possibly injured by a pellet gun and with most of its top mandible missing, but again the bird was in a good, well fed, condition.

Most ringers will agree that a broken or deformed leg appears to have little impact on the apparent health of a bird, although it is not possible to confirm whether male birds with such injuries or deformities are successful in breeding attempts. Deformities or growths around the beak area also seem to have little effect on the bird's mass or vigour. Birds therefore seem to be surprisingly robust.

During a recent ringing session at Buffelsdrift in the Nokeng Conservancy area north of Tshwane (Pretoria) several Magpie Shrikes *Corvinella melanoleuca* were caught out of what is reported to be a fairly close-knit and assertive group (R Geddes 2007, pers. comm.). The biometrics of the birds caught on the day are given in Table 1.

One of the birds caught had an extreme deformity (Fig. 1). The entire lower mandible was missing, and clearly had been missing for some time. There was no sign of any fresh tissue damage. The tongue, with the bird unable to retain a saliva-rich environment, showed some signs of necrosis; this was similar to what Franke reported for the tongue of the injured barbet. The upper mandible showed signs of significant wear, and no longer had any sign of the normal hooked tip which is a feature of most shrikes. The extent of wear of the upper mandible would appear to support a contention that the individual has survived (and prospered) for some time despite this injury.

With this type of injury, it is clear that the bird would have great difficulty in feeding itself effectively as it has no ability to grasp or tear prey items with its beak. And yet, when the biometrics of this individual are juxtaposed against the average data for its peer group it would seem to be in as good health as the average member of the group, apart from the fact that the culmen, and consequently the head measurement had been adversely affected by the wear on the upper mandible (Table 1). After the bird was ringed with ring number D71126 it was released and flew off without any apparent difficulty and to the casual glance this bird will appear to be normal.

How has this individual survived despite what would appear to be a life-threatening injury? Could it be the beneficiary of feeding support from other members of

the “mob”? It is hoped that the active birding community of Buffelsdrift will, now that they are alerted to this issue, be able to observe how the individual manages to keep itself fed. I would be interested to hear any other theories on how this bird has survived.

References

Van Stuyvenberg. D. 2005. Injured Jackal Buzzard (*Buteo rufofuscus*). Afring News 34:68

Franke U. 2005. Major injuries of Blackcollared Barbet *Lybius torquatus* and Brown Snake Eagle *Circaetus cinereus*. Afring News 34:69

Table 1. Biometrics for Magpie Shrikes, for an injured bird (D71126) with those for the Buffelskloof peer group and the Robert’s VII data

	Mass (g)	Wing (mm)	Tail (mm)	Head (mm)
D71126	79,0	133	294	50,9
Minimum	78,3	129,0	270,0	50,9
Maximum	94,2	139,0	300,0	55,2
Average	83,0	133,1	286,3	52,1
Robert's 7 average	82,3	140,0	283,0	

Fig. 1. Magpie Shrike with severely disabled bill