

Diet of Booted Eagles and Peregrine Falcons in the Waterberg Plateau Park, Namibia

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The Waterberg Plateau Park supports some 94 pairs of diurnal, cliff-nesting raptors belonging to six species (Brown & Cooper in press). During the course of fieldwork in this area I had the opportunity to record a number of fresh prey items for the Booted Eagle *Hieraaetus pennatus* and Peregrine Falcon *Falco peregrinus minor*. Both species breed in the Waterberg and prey items were recorded both during breeding and non-breeding seasons.



Nine incidental records on the diet of Booted Eagles were obtained, all involving avian prey (Table 1), ranging from c. 25g to c. 600g. Two strikes were recorded - one Cape Turtle Dove *Streptopelia capicola* (Brown 1985) and one Redbilled Francolin. Both strikes were at birds on the ground, with the Eagle flying in low and fast. In both cases the target birds tried to fly at the last moment, coming a few cm off the ground when struck.

Twenty-two prey items for Peregrine Falcons were recorded in the Waterberg; all were birds and ranged in size from 21g to c. 350g (Table 2). Unlike a sample of 24 prey items from the Transvaal, in which doves predominated (Tarboton & Allan 1984), in the Waterberg, swifts were particularly important, comprising 64% of Peregrine prey by frequency, but only 27% by mass. The two Rock Pigeons made up about 50% of the mass of prey recorded.

Peregrine hunting methods

During two full-day watches at a cliff occupied by a pair of Peregrines with three large nestlings, I observed nine prey strikes, seven of which took place before 10h00. Little Swifts were the main target (n = 6): when they emerged from their crevices in the cliffs they formed a dense swarming mass in front of and above the cliffs, soaring there for up to 45 min before dispersing. The falcons soared through the swarms,

Table 1. Incidental prey records of Booted Eagles in the Waterberg Plateau Park

Prey species	Mass (g) ¹	Number	% by mass
Redbilled Francolin (<i>Fringillus adspersus</i>)	~ 600	2	49
Hartlaub's Francolin (<i>F. hartlaubi</i>)	~ 250	1	10
Rock Pigeon (<i>Columba guinea</i>)	347	2	29
Laughing Dove (<i>Streptopelia senegalensis</i>)	102	1	4
Rosy-faced Lovebird (<i>Agapornis roseicollis</i>)	55	1	2
unknown Pipit (<i>Anthus</i> sp.)	~ 25	1	1
Palewinged Starling (<i>Onychognathus nabouroup</i>)	~ 110	1	5

1. Weights from Maclean (1985)

Table 2. Prey species of desert-breeding Peregrines, in the Waterberg Plateau Park.

Prey species	Mass (g) ¹	Number	% by mass
Rock Pigeon	347	2	50
Rosy-faced Lovebird	55	2	8
Bradfield's Swift (<i>Apus bradfieldi</i>)	~ 48	1	3
Whiterumped Swift (<i>A. caffer</i>)	96	4	7
Little Swift (<i>A. affinis</i>)	234	9	17
Rock Martin (<i>Hirundo fuligula</i>)	22	1	2
Palewinged Starling	~ 110	1	8
Whitebrowed Sparrowweaver (<i>Plocepasser mahali</i>)	47	1	3
Cape Bunting (<i>Emberiza capensis</i>)	21	1	2

1. Weights from Maclean (1985).

suddenly changing direction to dart after a particular bird, seeming to capture it at will. The first few prey items were taken directly to the nesting ledge, but thereafter the Peregrines flew about for some time carrying the prey, before perching on a small tree near the top of the cliff to pluck and eat. Because of the apparently casual nature with which prey was

captured, no strike success rate could be calculated. Between 07h00 and 10h00 prey delivery to the nest occurred at one item/72 min, thereafter dropping off dramatically to one item/2,4h. This did not include prey eaten by adults away from nest ledge.

In the case of stoops in pursuit of prey, a small flock of Palewinged Starlings was intercepted at an angle of about 30°, and an individual was taken on the first attempt. The hunt started when the starlings came over the edge of the plateau in a gentle descent towards the plain below. The falcon was circling in front of the nesting ledge about 300 m away, and with a number of fast wing beats set off on the interception course. The starlings took no evasive action.

Another successful interception involved a Rosy-faced Lovebird in a small flock. Three previous attempts on similar flocks of lovebirds, flying fast from their roosts on the cliff to the woodland below, had previously failed. Other unsuccessful hunts were on Alpine Swift *A. melba*, Rock Pigeon, African Hoopoe *Upupa epops* and African/European Cuckoo *Cuculus canorus/gularis*. The success rate combining all these stoops was 22%. All prey struck by the falcon was held, and carried away in flight.

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