

# RAPTOR RINGING IN NAMIBIA

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**SUMMARY** - About 1725 birds of prey have been ringed in Namibia, 66% of these in the last eight years. Only 63 (3.7%) of these birds have been recovered. Eight other raptors ringed elsewhere were recovered in Namibia.

## Ringling Effort

About 1 725 diurnal birds of prey of 35 species have been ringed to date in Namibia (including Walvis Bay), 66% of these in the last eight years. The ringling effort for Namibian raptors has been biased towards common species, species easily trapped with bal-chatri traps and species that were the subject of detailed studies. Thus 11 species have fewer than five individuals ringed, eight species have 5-19 individuals ringed, 11 have 20-49 and only five species have 50 or more individuals ringed.

## Recovery Rates

Despite this ringling effort, only 63 recoveries (3.7%) have been obtained from birds ringed in this country. Of those species for which more than 50 individuals have been ringed, recovery rates are as follows: Whitebacked Vultures *Gyps africanus* (141 ringed) 2.1%, Lappetfaced Vultures *Torgos tracheliotus* (237) 6.3%, Pale Chanting Goshawks *Melierax canorus* (464) 2.6%, Rock Kestrels *Falco tinnunculus* (183) 1.1%, and Greater Kestrels *F. rupicoloides* (125) 2.4%. The overall recovery rate of 3.7% has been elevated by two detailed studies, on Martial *Polemaetus bellicosus* and Tawny Eagles *Aquila rapax*, where a number of ringed birds also

carried radio transmitters. All radiotagged birds that died were recovered, resulting in recovery rates of 48% and 34% for these species respectively. If radiotagged birds are removed from the sample, the overall recovery rate for raptors in Namibia would be 3.1%.

By contrast, the recovery rate of raptors in Britain ranged from 8% to 14%, dependent on species, and that of Norwegian raptors from 4% to 27% (Newton 1979). While recovery rates should be calculated only after the lifespan of ringed birds has elapsed, return rates are, nevertheless, going to be considerably lower in countries such as Namibia which have a low human population and a public not educated to ringling programmes.

## Recovery Circumstances

Of 71 returns of raptors ringed and/or recovered in Namibia, 24 (34%) died of unknown causes (Table 1). Of the known causes of mortality, 23% were poisoned. These were all scavenging species and most died of strychnine poison set in baits for mammalian predators. Half of the known causes of death amongst scavenging birds resulted from poisoning. Twenty-one percent of birds were shot. This was most prevalent in the Martial Eagle, a species known to prey on domestic smallstock. Two Pale Chanting Goshawks were shot for allegedly killing chickens while a Lesser Kestrel *Falco naumanni* was shot as part of bird air-strike control at the Windhoek airport. Of all raptors, 17% were caught in gin traps set for mammalian predators, affecting mainly the scavenging species and con-

TABLE 1. CAUSES OF MORTALITY IN RAPTORS RINGED OR RECOVERED IN NAMIBIA.

Feeding category and species	Number of records									
	Poisoned	Shot	Trapped	Collision		Electro	Drowned	Predation	Starvation	Unknown
				car	plane	cables	cuted			
<b>SCAVENGERS</b>										
Cape Vulture	1									1
Whitebacked Vulture	1		1							1
Lappetfaced Vulture	4	2	3							6
Tawny Eagle	5		1	1				1	1	4
Yellowbilled Kite					1					
<b>TOTALS</b>	<b>11</b>	<b>2</b>	<b>5</b>	<b>1</b>	<b>1</b>					<b>12</b>
<b>PREDATORS - LIVESTOCK</b>										
Martial Eagle		5	1					1		3
<b>OTHERS</b>										
Blackshouldered Kite									1	
African Hawk Eagle								1		
Blackbreasted Snake Eagle						1		1		
Steppe Buzzard				1						
Little Banded Goshawk										1
Pale Chanting Goshawk		2	2	1	1			1	1	4
Lanner Falcon								1		2
Greater Kestrel								2	1	
Rock Kestrel										2
Lesser Kestrel		1								
<b>TOTALS</b>		<b>3</b>	<b>2</b>	<b>2</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>6</b>	<b>3</b>	<b>9</b>
<b>Grand Totals</b>	<b>11</b>	<b>10</b>	<b>8</b>	<b>3</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>8</b>	<b>1</b>	<b>3</b>
Percentages (known causes)	23	21	17	6	2	2	2	17	2	6

tributing to 23% of the mortalities in this group. A further 17% of deaths resulted from drowning in water reservoirs. This cause of death was common to most species, and while no ringed vultures were involved, unmarked Whitebacked and Lappetfaced Vultures have been recorded dying in this way. Collisions with motor vehicles and suspected starvation each contributed 6% to overall mortality,

while other factors each contributed only 2%.

Newton (1979) has pointed out that no known method of study gives unbiased information on causes of mortality in raptors. This is certainly true of ring recoveries; the reporting rate is not independent of cause of death. For example, birds killed by man are usually on hand to be examined and, if ringed, to be

TABLE 2: TRANS-BORDER MOVEMENTS OF RAPTORS RINGED OR RECOVERED IN NAMIBIA.

Species	Ringed	Recovered	Months elapsed	Distance (km)
Cape Vulture	Skeerpoort, Transvaal	Okahandja, Namibia	14	1 231
Cape Vulture	Skeerpoort, Transvaal	Okahandja, Namibia	15	1 227
Whitebacked Vulture	Kimberley, Cape	Mariental, Namibia	7	823
Rock Kestrel	Clanwilliam, Cape	Rossing, Namibia	97	1 158
Lesser Kestrel	Stavropol region, USSR	Windhoek, Namibia	9	8 035
Lanner Falcon	Grootfontein, Namibia	Middelburg, Cape	2	1 528
Lanner Falcon	Mariental, Namibia	Lady Grey, Cape	57	1 031
Yellowbilled Kite	Skeleton Coast, Namibia	Bujumbura, Burundi	7	2 297
Tawny Eagle	Kalahari Gemsbok Park	Gobabis, Namibia	11	91
Martial Eagle	Kalahari Gemsbok Park	Aranos, Namibia	66	130
Steppe Buzzard	Eilat, Israel	Gobabis, Namibia	45	5 924
Little Banded Goshawk	Katima Mulilo, Namibia	Sesheke, Zambia	3	5

reported. Birds which die of natural causes, e.g. predation, starvation and disease, are seldom found. Poisoned birds usually die away from the site at which the poison was eaten (Brown 1991) and their recovery rate is lower than in other instances of man-induced mortality, probably approximating that of natural mortality. Whether killed birds are reported accurately or at all is another source of bias, influenced by legislation as well as social pressures. While causes of mortality from ringed birds should be used with caution, they nonetheless reveal useful trends.

### Foreign Recoveries

Finally, of the 71 raptors ringed and/or recovered in Namibia only 12 had crossed the borders of this country (Table 2); eight of these were ringed elsewhere. Two were Palearctic migrants, one was an intra-African migrant and the rest were "resident" species. Of the last group, some of the distances between ringing and recovery are small, e.g. a Little Banded Goshawk *Accipiter badius* which moved across the Zambezi River from

Caprivi to Zambia, while those of the Cape Vultures *Gyps coprotheres*, Rock Kestrel and Lanner Falcons *Falco biarmicus* are impressively large at over 1000 km.

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