

Autumn Migration across the Bab-el-Mandeb Straits

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INTRODUCTION

It has long been suspected that raptors which breed in eastern Europe and Russia and winter in southern and eastern Africa, enter the African continent via the Bab-el-Mandeb straits: at 22km this is the narrowest point at the southern end of the Red Sea. Despite the suitability of the terrain, evident from maps, no fieldwork had ever been carried out to confirm or disprove these suspicions.

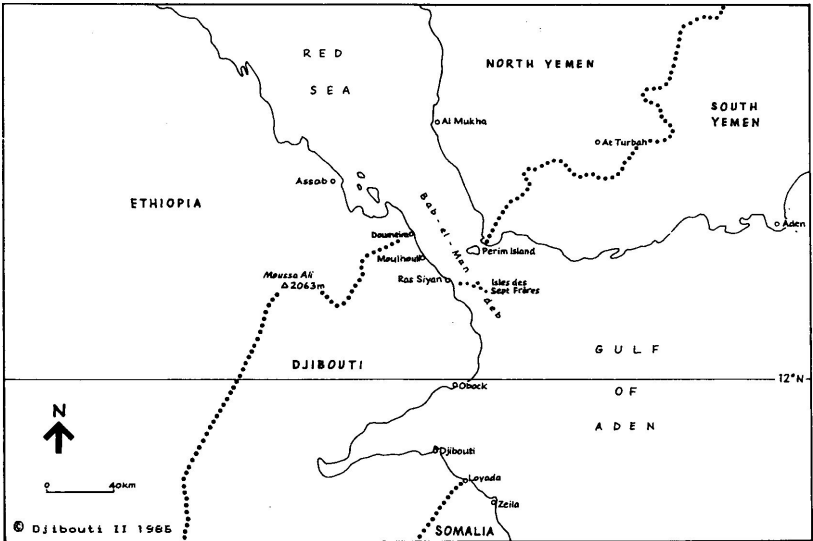


Figure 1: The Bab-el-Mandeb straits.

METHODS

During Phase 1 of the Djibouti II Autumn '85 expedition, three observers, based on the north-east coast of the country (see map), spent a total of 17 days (375 man hours) recording visible migration across the straits. From 15-22 October observations were made at Ras Siyan (43°19'E, 12°28'N), moving to Doumeira (43°08'E, 12°43'N) from 24 October-1 November. Both sites provide ideal conditions for observing migrating raptors since each has a prominent topographical feature dominating the surrounding landscape - a hill rising to 138m at Ras Siyan, and a ridge c50m in height at Doumeira - over which the birds congregate and gain height before continuing their journeys inland.

RESULTS

During the period of observation, a total of 79,795 migrant raptors was recorded (Table 1). At Ras Siyan significant movement was only noted on two days, 16 and 17 October. On these days the wind was from the north to north-west, providing a following wind for birds departing from Yemen, and a total of 16,581 Steppe Buzzards *Buteo buteo vulpinus* was recorded, together with smaller numbers of a further 23 species of raptor. Throughout the remainder of the observation period winds were from the south or south-east, and appeared to be less favourable for a crossing at Ras Siyan. During this period only very small numbers of the more 'active' migrants, i.e. harriers, falcons and accipiters, were noted.

At Doumeira significant numbers of birds were recorded every day and, with the south to south-east winds, birds would have had a relatively easy crossing from Yemen. Here the predominant species was Steppe Eagle *Aquila nipalensis* with 60,583 noted, together with smaller numbers of 21 other raptor species.

DISCUSSION

At both sites the main movement occurred between 10.30 and 14.00hrs, with smaller numbers of birds continuing to be recorded at Ras Siyan throughout the day, but all movement ceasing at Doumeira after this time.

At Ras Siyan birds crossed the coastline at an altitude of c50m before gaining height over the summit of the hill and then continuing inland on a south-westerly course. At Doumeira arriving birds were at c65m, though towards the end of the observation period thermals of eagles were recorded out to sea at c250m, these then gradually losing height until they crossed the coastline before gaining height again over the ridge and moving off westwards into Ethiopia.

These observations suggest that the departure point for all these birds is in the region of Perim Island. With northerly winds, the first landfall for migrants is Ras Siyan, whilst southerly winds cause a northward displacement to the Moulhouli/Doumeira region.

At Doumeira, movement occurred in noticeable 'waves', the centre of which gradually moved northwards along the coast during the course of the day. This northward shift probably accounts for the apparent cessation of movement after 14.00hrs - the birds actually being drifted further north into Ethiopia and thus lost to view to observers based at Doumeira.

These observations clearly demonstrate that Djibouti is an important site for observing and monitoring the movement of large numbers of migrating raptors - birds which have not been noted at any of the other regular Middle Eastern counting sites. It would also appear that Bab-el-Mandeb is a major migration route for Steppe Buzzards, and possibly the most important autumn route in the Middle East for Steppe Eagles. Both Ras Siyan and Doumeira are worthy of long-term future work to discover the full extent of the movements taking place.

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Table 1: Number of raptors recorded at Ras Siyan and Donmeira in Autumn 1985.

Date: Oct	RAS SIYAN										DOUMEIRA										TOTAL
	15	16	17	18	19-23	24	25	26	27	28	29	30	31	Nov 1							
Honey Buzzard			1	1			1				2										
Black Kite	37		8	1		1	2		2	1	3										
Milvus migrans																					
Egyptian Vulture	18		5	3	1			1	1	1		8	1	2							
Neophron percnopterus																					
Short-toed Eagle	16		102	1		5	16	4	9	24	9	11	3	3							
Circus gallicus																					
Marsh Harrier	2		2		2									6							
Circus aeruginosus																					
Pallid Harrier	1	2	5	2	2	1			2				1	16							
Circus macrourus																					
Montagu's Harrier	3		2	1										6							
Circus pygargus																					
Sparrowhawk	9	107	132	16	41	18	15	3	6	15	7	11	19	7							
Accipiter nisus																					
Levant Sparrowhawk	1	1												2							
Accipiter brevipes																					
Steppe Buzzard	1	6052	10529	72	27	7	166	42	130	153	342	112	201	66							
Buteo buteo vulpinus														17900							
Long-legged Buzzard	1			1			1			1				4							
Buteo rufinus																					
Spotted Eagle	2		3											1							
Aquila clanga														6							
Steppe Eagle	147	135	9	3	3240	10204	6577	6776	9824	5929	7658	4529	5846	60897							
Aquila nipalensis																					
Tawny Eagle			7		2									9							
Aquila rapax																					
Imperial Eagle							8		1		1	1	1	4							
Aquila heliaca																					
Booted Eagle	42		54	1		3	6	1	2	3	4	6	3	125							
Hieraetus pennatus																					
Bonelli's Eagle				2										2							
Hieraetus fasciatus																					
Lesser Kestrel			3						1					4							
Falco naumanni																					
Kestrel	1	17	12	2	1	1	1	1	3	2	1	4	1	1							
Falco tinnunculus														48							
Hobby	2	7	1	3		1			/	1			1	16							
Falco subbuteo																					
Eleonora's Falcon					1							1		2							
Falco eleonorae																					
Lanner	1	2			2			2		1				8							
Falco biarmicus																					
Saker	1		2											3							
Falco cherrug																					
Peregrine	2	3	1		2	2	2		1	2	1	1	1	16							
Falco peregrinus																					

