RAPTOR MIGRATION IN THE RED SEA AREA

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ABSTRACT

Counts are given of raptors migrating in the Red Sea area. Species composition at Suez differs somewhat from that seen at Eilat in the same season.

INTRODUCTION

In an analysis of the autumn migration of raptors over eastern Denmark, Bruun & Schelde (1957) drew attention to the usefulness of dividing species into active and passive migrants.

Using our original definition, active migrants only rarely take advantage of thermal updrafts, whereas passive migrants prefer to use them and only reluctantly make use of active flying. This difference is particularly noticeable at water crossings, which usually offer no opportunities for the use of thermals or other updrafts, and where passive migrants show great reluctance to cross. An analysis of the migratory pattern in the Middle East with this basic concept in mind is useful in bringing some understanding to the rather scant observations. It may also help in developing hypotheses which can then be checked by carefully selected observations.

The diversity of raptors in the Middle East is much greater than in Scandinavia, and the original two categories can be subdivided, each into two groups (*Table 1*). The subdivision is not rigid, and individuals of a certain species may well behave in different ways according to circumstances. The patterns shown are the usual for each species.

On the map (*Figure 1*), the most obvious geographical feature affecting migrating birds of prey is the Red Sea. Stretching 1800km from Bab El Mandab to Suez, it varies in width from 23km at Bab El Mandab and Hurghada (the narrowest points) to 330km at its widest. Through most of its length the Red Sea has a width of 160–225km.

Table 1: Migratory raptors of the Middle East, by category.

Passive		Active	
Very	Less	Very	Less
Vultures	Buteos	Harriers	Falcons
Aquilas	Kites	Accipiters	
Short-toed Eagle	Honey Buzzard		

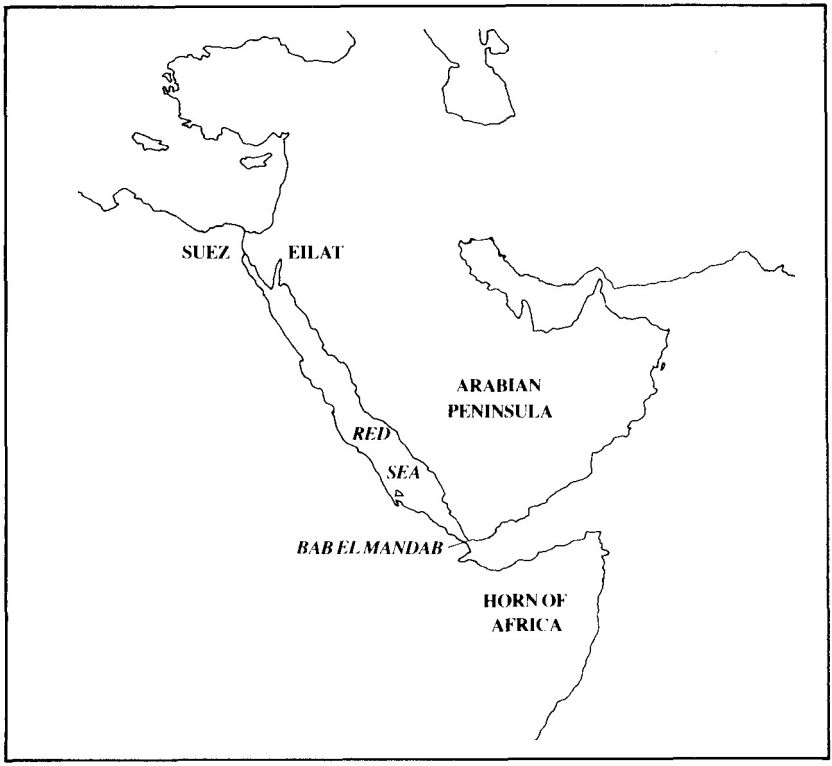

Figure 1: General map of the Red Sea area.

Accepting the reluctance of passive migrants to cross water barriers, we would expect 'very passive' birds to avoid the crossing completely and concentrate at Suez. Birds of the 'less passive' category would be expected to cross, not only at Suez but also at other narrow points, particularly Hurghada (*Figure 2*) and Bab El Mandab (*Figure 1*). Species of the 'less active' category would be less concentrated at Suez but possibly more so at Hurghada and Bab El Mandab, whereas 'very active' birds would not be concentrated at all.

Systematic observations from Suez are only now becoming available, but these do confirm the preponderance in spring of species in the 'very passive' category and, to a lesser extent, the 'less passive'. Preliminary figures also indicate that northerly winds tend to concentrate the birds at Suez, whereas southerly winds disperse them northward. The observations from 1981 (when the winds were predominantly northern) show this preponderance of 'passive' migrants (*Table 2*).

Looking at the observations available from Eilat in spring, the picture at first glance appears less clear, but a closer examination clarifies this somewhat. Although less numerous than at Suez, 'very passive' species nevertheless occur in significant numbers at Eilat. This can be explained by observations of these birds

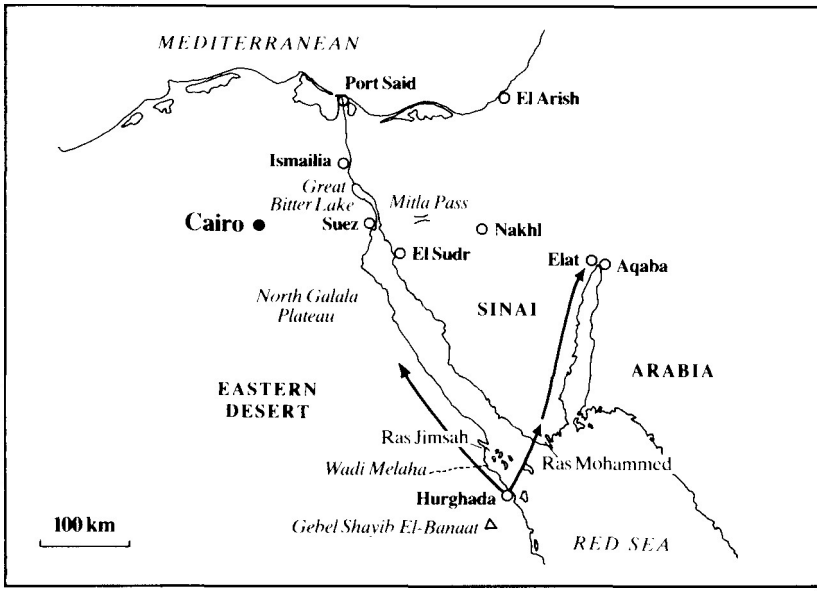

Figure 2: Map of the northern end of the Red Sea, showing places mentioned in the text.

crossing the Sinai from west to east, possibly in an attempt to correct westward displacement caused by reluctance to cross the Red Sea and possibly by drift caused by the predominantly northerly winds. Birds from the Arabian Peninsula may also contribute to the concentration at Eilat.

Comparing species from the 'very passive' category observed at Suez between 23 February and 20 March 1981, with the observations from Eilat for the same period in 1977, the difference between the two localities was marked (*Table 3*). The difference in the species of *Aquila* was especially striking. During the period in question the Lesser Spotted Eagle (*Aquila pomarina*) predominated at Suez and the Steppe Eagle (*Aquila rapax*) at Eilat. Later in the season, however, when immature Steppe Eagles migrated, they were as numerous at Suez as at Eilat.

Lesser Spotted Eagles follow a rather northerly course from Suez and so pass west of Eilat. Misidentification is possible, either at Suez or Eilat (or both), but this seems unlikely, especially in view of recent observations from the autumn, which also show the more westerly passage of Lesser Spotted Eagles. Steppe Eagles might either have been missed at Suez in early 1982 because of the then prevailing southerly winds, or adults might follow a different route to immatures. They could conceivably even winter in a different area (i.e. the Arabian Peninsula or the Horn of Africa). The first explanation seems the most likely at present.

Birds of the 'less passive' and 'less active' categories are, as expected, more numerous at Eilat. The majority of these have probably crossed at Hurghada, but some, especially of the 'less passive' category, may well have come from Suez.

The area of most interest, from which no observations are available, is Bab El Mandab. I strongly suspect a major crossing occurs here, possibly even involving

Table 2: Migrating raptors observed near Suez, Egypt, in spring 1981.

	February			March		April	May			
Date	26	27	28	9	10	6	7	8	9	14
Honey Buzzard (*Pernis apivorus*)							62	8	1	
Black Kite (*Milvus migrans*)							129	36	59	6
Egyptian Vulture (*Neophron percnopterus*)	2	7	9	27	21	8	7	16	24	
Griffon Vulture (*Gyps fulvus*)		5	6	1	2		3	4	7	
Short-toed Eagle (*Circaetus gallicus*)	15	37	23	497	146	2	3	2	5	
Marsh Harrier (*Circus aeruginosus*)								1		
Levant Sparrowhawk (*Accipiter brevipes*)						1				1
Buzzard (*Buteo buteo*)	1	8	28			2,752	256	79	887	53
Long-legged Buzzard (*Buteo rufinus*)	2	4	1	2		4		1	3	
Buteo sp.				444	261					
Lesser Spotted Eagle (*Aquila pomarina*)	516	1,904	3,361	1,527	2,769	22	1	1	2	
Spotted Eagle (*Aquila clanga*)		27	27	10	10					
Steppe Eagle (*Aquila rapax*)	16	7	97	22	109	397	176	212	242	7
Aquila sp.	31			100	365					
Total *Aquila* (see text)	563	1,938	3,485	1,659	3,253	419	177	213	244	7
Bonelli's Eagle (*Hieraaetus fasciatus*)	1			1						
Booted Eagle (*Hieraaetus pennatus*)						9	4	1	16	8
Kestrel (*Falco tinnunculus*)	2	2	1	1	3	1	5	1	6	2
Red-footed Falcon (*Falco vespertinus*)							1	1		
Lanner Falcon (*Falco biarmicus*)			1		1					
Falco sp.			3				1			
Falconiformes sp.					210					
White Pelican (*Pelecanus onocrotalus*)						7	14		55	
Dalmatian Pelican (*Pelecanus crispus*)					19					
White Stork (*Ciconia ciconia*)							15			2,500
Black Stork (*Ciconia nigra*)								1	1	
Crane (*Grus grus*)					44					
Wind direction	NW	NW	NW	none	none	SSE	N	N	N	N
Wind strength	mod.	mod.	mod.	none	none	strong	light	light	light	light

Table 3: Selected species seen at Suez 23 February–20 March 1982 and at Eliat 23 February–20 March 1977.

Species	Suez	Eilat
Griffon Vulture	53	22
Egyptian Vulture	337	225
Short-toed Eagle	2,082	73
Total Aquila	13,504	17,671
Steppe Eagle	2,736	12,021
Lesser Spotted Eagle	6,199	65

a large number of birds of the 'very passive' category. The advantage of crossing here for birds located at the Horn of Africa, thus avoiding a detour of more than 1500km, might well be such as to outweigh the decided risk of a water crossing. I therefore strongly urge that observations be made at Bab El Mandab, as well as more extensive observations at Suez, Hurghada and the Arabian Peninsula.

REFERENCE

BRUUN, B. & SCHELDE, O. 1957. Efterårstrakket på stigsnoes ISV. Sjaelland. *Dansk Ornithologisk Forenings Tidsskrift.* **51**, 149.