



Spring raptor migration across the Bab el Mandeb Straits and fitting of GPS PTT to
Egyptian vulture –Djibouti Side- February 28 to March 14, 2013

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Full final report

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Background

The Bab el Mandeb Strait between Djibouti and Yemen is part of the Rift Valley/Red Sea flyway, the second most important flyway for migratory soaring birds in the world, and is the focus of a conservation initiative by Birdlife for migrating soaring birds (<http://www.birdlife.org/migratorysoaringbirds/>). Over 1.5 million soaring birds of 37 species (including 5 globally threatened species) use the straits each year to move between Eurasia and Africa. The Strait is an important migration bottleneck because it is the shortest water crossing south of Suez, and the Djibouti side is an Important Bird Area (IBA), but has been little studied. Information comes from surveys in autumn 1985 and 1987 and in spring 1990. More than 240,000 raptors of 28 species were recorded crossing in a single autumn (Welch and Welch 1988), mostly common buzzard and steppe eagle, but also pallid harrier (NT), greater spotted eagle (VU), eastern imperial eagle (VU), and lesser kestrel (VU), and in spring large numbers of Egyptian vultures (EN) and booted eagles were counted during limited surveys (Welch and Welch 1991).

The Egyptian vulture is a long-lived species with a wide distribution that is endangered due to declines across its range (BirdLife International 2012). Threats to the population and reasons for the declines are varied and include (amongst other things) use of body parts for traditional medicine, poisoning, electrocution (e.g. Angelov et al 2012), and reduction in food availability (Birdlife International 2012).

In northern parts of its range Egyptian vulture is migratory; it is generally resident in Africa and south Asia. Its diet is broad, though it is mostly a scavenger. It is a solitary nester that breeds on ledges, in caves and crevasses, usually on low cliffs. It may aggregate at feeding sites.

Djibouti holds a resident population of Egyptian vulture of unknown size, but wide distribution, and an unknown number of migrant birds spend the non-breeding season in Djibouti. Many migrant Egyptian vultures transit over the Red Sea at the Bab el Mandeb both in spring and autumn (Welch and Welch 1988, 1991). Although data are limited, the migration of Egyptian vultures at the Bab el Mandeb seems to be larger during spring than during autumn and comprised almost entirely of adults (Welch and Welch 1988, 1991, R. Porter, unpubl. Bab el Mandeb Datasheet).

The study area and field methods

The Ras Siyyan is a small volcanic cone rising to 138 m located in the south-eastern mouth of the Red Sea at Bab el Mandeb Straits. The area is forming a narrow corridor between Djibouti and Yemen and is a part of stretch coast in the north-east of the country, between the rocky outcrop at Kadda Guéini and the border village of Doumêra.

From March 1st to 10th, 2013, we revisited and studied the area that had been monitored during the spring 1990 (Welch and Welch 1991) focusing on the migration of soaring birds (mostly Egyptian vultures and booted eagles) migrating between Africa (Djibouti) and Arabia (Yemen) over the Bab el Mandeb Straits.



The photo above is of Ras Siyan at Bab el Mandeb in Djibouti side; about 28 km beyond it across the straits is Yemen.

Results

The purpose of the study was to better understand the composition and scale of migration across the straits, and we also aimed to capture an Egyptian vulture and fit it with a satellite radio transmitter and follow its movements.

Observations were made from beach (VP1:12°, 28.757'; 43 °, 18.779') and from two locations (VP2: 12 °, 28.567'; 43 °, 19.075'; VP3 12 °, 28.391'; 43 °, 19.371') on the volcanic cone at Ras Siyyan. The initial purpose was to monitor migration, and see if our results correspond to those of Welch and Welch (1991), which were made over a very limited number of days under unusual weather conditions. Weather conditions during our observations were also “unusual” in that the strong east and northeast winds predominated (especially during 2-4 March). We were told that these winds were unusually strong by local fishermen who could not go to sea because of them.

Our observations during this time were in close concurrence with those by Welch and Welch (1991). Migration started after 0800, with the arrival of EGVUs flying low over the lagoon from the west and northwest. Migration would build until about 0930-1100, during which time most birds arriving at Ras Siyyan would gain height and embark across the sea toward Yemen. As the morning progressed more and more birds arriving at Ras Siyyan would gain height and then drift, south and south east over land and not make the crossing within sight of our vantage points. Also, the composition of the visible migration from Ras Siyyan changed during the mornings with booted eagles becoming more common later and numbers of EGVUs declining. During 0930 -1130 sometimes large mixed flocks of mostly booted eagles and EGVUs could be seen gaining altitude to the south and disappearing upwards or southwards. No obvious point of embarkation was identified. Some, maybe most, continued to soar over land and drift south out of sight. Visible migration at Ras Siyyan after 1100 was very small, and almost no migration was seen after 1200 until dark. The strong east and north east winds continued throughout the period.

On the afternoon of 5 March we moved camp to a location west of Khor Angar (12°, 23.854', 43 °, 17.04.6') to enable us to better observe the migration as it moved south each morning.

The results of the migrating raptors counts in the vicinity of Ras Siyyan from March 2 to 10, 2013 are in the table below:

Raptor species	March 2013									TOTAL	%
	2	3	4	5	6	7	8	9	10		
Egyptian Vulture	29	84	233	15	73	71	309	158	195	1167	25.58
Booted Eagle	37	166	271	67	55	315	276	369	217	1773	38.86
Short toed eagle	0	0	5	11	5	6	66	64	69	226	4.95
Steppe Eagle	2	2	4	7	0	8	17	29	7	76	1.67
Imperial Eagle	1	1	0	1	0	0	3	0	2	8	0.18
Honey Buzzard	1	1	4	4	0	4	5	0	2	21	0.46
Long-legged Buzzard	0	0	2	0	0	0	0	0	0	2	0.04
Lanner Falcon	1	0	0	0	0	1	0	0	0	2	0.04
Kestrel	0	1	1	0	0	1	0	0	0	3	0.07
Lesser spotted eagle	3	0	0	0	0	0	0	0	0	3	0.07
Shikra	1	0	0	0	0	1	0	0	0	2	0.04
Bonelli's eagle	0	0	0	0	0	2	2	0	0	4	0.09
Pallid Harrier	0	0	0	0	0	0	1	0	0	1	0.02
Marsh Harrier	0	1	0	0	0	0	0	0	0	1	0.02
Unidentified falcon	0	0	0	0	0	0	0	0	1	1	0.02
Unidentified raptor (likely eagle)	3	21	105	50	3	81	526	311	172	1272	27.88
TOTAL	78	277	625	155	136	490	1205	931	665	4562	

March 11, 2013, Trapping Egyptian vulture in Tadjoura

We fitted the vulture with a 40 gram GPS-PTT using a backpack harness. The transmitter is solar powered and so has a theoretical life of some years. It is programmed to acquire 8 GPS locations per day and send data every 2.5 days. (<http://egyptianvulturedjibouti.blogspot.co.at/>)



Eleyeh, Ali and Mike fitting of GPS PTT to EGVU



Mike releasing the EGVU with GPS PTT

Acknowledgements

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Annexe

Finance statement on Spring raptor migration across the Bab el Mandeb Straits – Djibouti Site

ABC Conservation Awarded Items:

Description of expenditures	Method of Calculation	Cost in US\$
Local cooperators fee (trainees)		
Eleyeh Omar Abdillahi (the applicant)	14 days x \$65	910
Ali Mouhoumed Darar (2nd trainee)	13 days x \$65	845
Ahmed Ali Hamadou (local guide)	Lump sum for 10 days	251

Total from ABC Conservation Award: \$ 2006

Other funds (European Science Foundation, Mohammed Shobrak at Taif University, the Milwaukee County Zoo and International Avian Research) supported Items:

Description of expenditures	Method of Calculation	Cost in US\$
Hotel accommodation (bed and breakfast): 2 days for M. McGrady in Djibouti city	4 days x \$91	364
4-wheel drive rent including insurance	15 days x \$222	3330
Fuel	Lump sum	250
Food for 1 person in Djibouti city (M. McGrady)	4 days x \$25	100
Coordinator fee (Houssein Rayaleh)	15 days x \$100	1500
Visa	1 unit	90
Equipment	Hammer, nails, rob, eggs, etc...	40
Travel Insurance (M. McGrady)	1 unit	100
Misc.		55
Bank transfer fee	2 units x \$16.5	33

Total from other fund Items \$5862

Total fund received from ABC: \$ 2006 (£1347)
Total fund received from other donors: \$5862 (€4500)

Total funds received: \$7862

Note:

If you have any questions concerning this finance statement, contact Houssein Rayaleh, the Executive Secretary of Djibouti Nature [Email: naturedjibouti@gmail.com](mailto:naturedjibouti@gmail.com)