

An observation the Indian subspecies of Egyptian Vulture *Neophron percnopterus ginginianus* in Djibouti.

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Egyptian Vulture (*Neophron percnopterus*) is globally endangered (IUCN 2020), and is declining in most parts of its range (Botha *et al.* 2017). Three subspecies are recognized: *N. p. percnopterus*, *N. p. ginginianus* and *N. p. majorensis*. The distribution of *ginginianus* is mostly in India and Nepal, *majorensis* occurs in the Canary Islands, and *percnopterus* is distributed in Europe, Asia and Africa (BirdLife International 2020). *N. p. percnopterus* and *N. p. ginginianus* distributions overlap in northern India (e.g. Himachal Pradesh, Rajasthan) and Pakistan (Naoroji 2006, Angelov *et al.* 2013, Mishra *et al.* 2018), and may interbreed (Mishra *et al.* 2018). Naoroji (2006) states that both *N. p. percnopterus* and *N. p. ginginianus* are “locally migratory”, but it is unclear what is meant.

Globally, Egyptian Vultures are partial migrants, and migration is only ascribed to individuals of the *percnopterus* subspecies that occur in more northern parts of the breeding range. Egyptian Vultures from all subspecies typically breed only after attaining adult plumage (> 4 yrs of age). Prior to entering the breeding populations Egyptian Vultures can wander extensively, and pre-adult birds from migratory (i.e. *N. p. percnopterus*) populations dwell in “wintering” areas at least 1.5 yrs. before they return to breeding grounds (Oppel *et al.* 2015). Resident and migrant Egyptian Vultures can range over very large areas during the non-breeding season (Meyburg *et al.* 2004, García-Ripollés *et al.* 2010, McGrady *et al.* 2019).

While conducting research on Egyptian Vultures

and observing them at the open-air abattoir at Tadjoura, Djibouti (11.78°N, 42.88°E) on 14 February 2020, we recorded a single adult individual that appeared to be of the subspecies normally found on the Indian subcontinent (*N. p. ginginianus*), almost 3000 km distant to the east (Naoroji 2006, BirdLife International 2020). We identified it by its pale, cream-coloured bill, which is considered diagnostic (Brown & Amadon 1968, del Hoyo *et al.* 1994, Ferguson-Lees & Christie 2001, Naoroji 2006, Mishra *et al.* 2018); the bill had no dark-coloured areas. This individual had a bright yellow face framed by whitish-yellow wrinkled skin, extending from behind the ear to the lower mandible (Figure 1). Its claws were greyish-black. Its plumage was that of a typical adult Egyptian Vulture (See Clark 1999, Forsman 1999, Naoroji 2006): the body feathers were white, tinged with pinkish-brown, and the remiges were black-dark grey from below and grey-whitish dorsally. From above the secondaries were rather white, consistent with the descriptions of *ginginianus* by Naoroji (2006) and Mishra *et al.* (2018), and the upper wing coverts were dark, as was the alula. Furthermore, although albino Egyptian Vultures have been recorded (Cortés-Avizanda 2010), the bird we observed was not an albino (nor was it leucistic) because of its otherwise normal plumage and claw colour. The dark reddish eye is characteristic of adult Egyptian Vultures, and thus not an indicator of albinism. In comparison with the other adults at the site that day, all of which were

apparently of the dark-billed (i.e. nominate) subspecies, its plumage was in the middle of the range between the whitest individuals and those with cream-reddish tinges. We could not discern

any obvious size difference between it and the other vultures at the site. It was notably aggressive, and pushed other vultures off carrion a number of times during the day.



Figure 1. *Neophron percnopterus ginginianus* observed at Tadjoura, Djibouti on 14 February 2020 (H. Rayaleh).

Our observations occurred during 0700 – 1430, and the individual on which we report was there for most of that period, though there was considerable coming and going of vultures. On that day, there was a maximum of 36 vultures on the ground, but the actual number of individuals that visited the site during the course of the day might have been considerably larger. At all times > three-quarters of the vultures at the site were adults. The *ginginianus* individual was not observed during the next three

mornings (approx. 0800 – 1200), when we visited the site.

Apart from our observations at the abattoir, which was visited by dozens of vultures every day, we regularly saw single and groups of Egyptian Vultures as we travelled around the country. Mostly those sightings were near human settlements surrounded by rugged terrain, and agree with Londei's (2018) assertion that Egyptian Vultures are rather common in Djibouti, especially in areas of good nesting habitat (cliffs) near human

settlements. Almost all observations of Egyptian Vultures away from the abattoir were too distant to see bill colour clearly.

This is not the first record of an Egyptian Vulture with a pale bill in the Horn of Africa, a similar (apparently different) individual was recorded in Tadjoura in December 2017 (Londei 2018), and another individual was seen in Ethiopia in 2010 (Angelov *et al.* 2013). Additionally, a pale-billed individual was observed on Socotra (Porter & Suleiman 2012), though those authors considered that bird to be of the nominate race with abnormal pigmentation of the beak and claws.

Observations of vagrants and rarities are of interest to many bird enthusiasts. Angelov *et al.* (2013), however, downplayed their observation's curiosity value, and initiated a discussion about Egyptian Vulture ranging behaviour, dispersal and movement ecology, which was then picked up by Mundy (2014), and Londei (2018).

Angelov *et al.* (2013) concluded that the bird they observed was *N. p. ginginianus*, and Mundy (2014) agreed and considered the same was the case for the bird seen by Porter & Suleiman (2012). Both Angelov *et al.* (2013) and Mundy (2014) considered the most likely explanation for the occurrence of *ginginianus* so far from its main distribution to be that some few individuals make long-distance movements. They seem to think that a route via the Straits of Hormuz is most likely, but in reference to movement Mundy (2014) points out Egyptian Vultures can likely do "whatever they want".

Londei (2018) also thought that the pale-billed vultures in the Horn of Africa are the result of long-distance movements by those individuals or their forebears. However, focusing on the existence of darker areas of the bill in both the Ethiopian bird and the bird he observed, speculated that those birds might be *percnopterus-ginginianus* hybrids produced in north-west India, where the subspecies overlap, or the descendants of hybrids. In

discussing that hypothesis, Londei (2018) further postulated that birds of mixed parentage might exhibit bill colour similar to *ginginianus*, and a willingness to migrate (as is seen in a portion of the *percnopterus* population). Angelov *et al.* (2013) and Mundy (2014) implicitly or explicitly further recognize the possibility that emigrants might settle and breed with local resident individuals, and so don't argue against Londei's (2018) hypothesis of hybridization, at least locally.

The beak of the bird we observed was homogeneously cream-coloured with a slight pinkish wash (Figures 1). Published descriptions of beak colour in *ginginianus* vary, but suggest it to be homogeneous (e.g. del Hoyo *et al.* 1994, Naoroji 2006, Porter & Suleiman 2012, Angelov *et al.* 2013, Londei 2018). However, the descriptions and photographs of the birds observed by Angelov *et al.* (2013) and Londei (2018) are of heterogeneous beak colouration, a condition suggested by Ferguson-Lees & Christie (2001) to exist amongst some *ginginianus* birds. Despite the confusion that arises from the various characterisations of beak colour by others, the bird we observed fits perfectly the description of *ginginianus*.

Whether the birds described in this and the earlier publications were pure *ginginianus*, or some level of hybridization first by mixed pairs in India as hypothesized by Londei (2018) remains an unresolved question. We agree with the observation by Angelov *et al.* (2013) and the implication by Mundy (2014) that the lack of records of *ginginianus* in Africa could be affected by the low number of observers in most places. Because nothing is known about the individual that we sighted, it does little to settle the speculative possibilities discussed by Angelov *et al.* (2013), Mundy (2014) and Londei (2018). However, new information, such as this observation, about Egyptian Vultures serves to frame that speculation more closely.



Figure 2. *Neophron percnopterus ginginianus* observed at Tadjoura, Djibouti on 14 February 2020 (H. Rayaleh).

Additionally, the manner in which pale-billed phenotype arrived in Africa is also unresolved. Assuming the pale-billed birds are indeed some product of *ginginianus* and not an entirely locally-produced morph/mutation, the birds observed in the Horn of Africa must be the result of rather rare, long distance movements by some undetermined route, either by individuals spanning one or many seasons or the stepwise advance of the *ginginianus*-type across Arabia spanning generations. Although Egyptian Vultures avoid water crossings, they do make them (e.g. Bab el Mandeb: Welsh & Welsh 1988, 1998; Straits of Hormuz; <http://egyptianvultureoman.blogspot.com/2018/10/in-january-2018-we-fit-satellite.html>). The dearth of observations of migrating Egyptian Vultures (of

any subspecies) near the head of the Arabian Gulf (O. Al Sayed pers. comm.) points to passage via that route being also limited. Despite the rarity of such movements (via any route) the truth in Mundy's (2014) statement that vultures could "do what they want" is obvious, given that vultures can make long migratory movements (e.g. Buechley *et al.* 2018a, b), and non-migratory and migratory individuals can range widely (García-Ripollés *et al.* 2010, McGrady *et al.* 2019). Nonetheless, and especially in light of the low number of observers in the Horn of Africa, it is remarkable that three observations of *ginginianus* have been made, and may suggest their occurrence to be more common. Understanding how the pale-billed phenotype arrived in Africa might be facilitated by

observational effort aimed at territory-holding adults and birds at communal gatherings (e.g. roosts and waste disposal sites) in Arabia.

Mundy (2014) also mentions that the occurrence of pale-billed birds could have been facilitated by escapes from private collections in the Middle East. Collections that include Egyptian Vultures exist in the region and an unknown proportion of those captive birds have pale bills (A. Al Sharaf pers. comm.), though we know of no cases of escapes or releases of those birds. Indeed, the only releases of such captive birds of which we are aware was of four individuals confiscated in Bahrain and released in Oman in 2017. All of those birds were of the nominate subspecies.

Finally, we could not eliminate the possibilities that the three observations (Angelov *et al.* 2013, Londei 2018, and this one) might be of one, two or three individuals. Current tracking by us (unpublished) and McGrady *et al.* (2019) show that Egyptian Vultures in Djibouti can indeed range over distances larger than the ca 125 km between Tadjoura and the Ethiopian observation, and the minimum age of the bird in 2020, if it was the same as that seen in 2010 (i.e. ≥ 14 yrs.) would be well

within values for Egyptian Vulture longevity (Grande *et al.* 2009). However, we think that it is highly improbable that our observation was of either of the individuals observed earlier. The main reasons for this are that the chance of such repeat observations in the region are low, and that the earlier observations were of birds with darker bills and wing feathers.

Although breeding Egyptian Vultures have not been surveyed in Djibouti, it seems that the country may be a stronghold because food availability is sufficient, human activity in rural areas revolve around pastoralism, and there appears to be a general lack of many threats faced by Egyptian Vulture elsewhere in their distribution (e.g. electrocution, NSAIDs, persecution, etc., Botha *et al.* 2017). Together, the three sightings of *ginginianus*-types in the Horn of Africa and the Horn's apparent stronghold status point to perhaps an underappreciated flow of that phenotype from India into Africa. Finding pale-billed birds at Arabia, and determining whether they are breeders or passage birds would shed some light on this current mystery.

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References

- Al Fazari, W.A. & McGrady, M.J. 2016. Counts of Egyptian Vultures *Neophron percnopterus* and other avian scavengers at Muscat's municipal landfill, Oman, November 2013–March 2015. *Sandgrouse* 38: 99–105.
- Angelov, I., Abdu, B., Terziev, N. & Zelleke, S. 2013. Possible sighting of the Indian subspecies of the Egyptian Vulture *Neophron percnopterus ginginianus* in Africa. *Vulture News* 64: 44–49.
- Angelov, I., Bougain, C., Schulze, M., Al Sariri, T., McGrady, M. & Meyburg, B.-U. 2020. A globally-important stronghold in Oman for a resident population of the endangered Egyptian Vulture (*Neophron percnopterus*). *Ardea* 108: 1–10.

- BirdLife International. 2020. Species factsheet: *Neophron percnopterus*. Downloaded from <http://www.birdlife.org>. Cambridge, UK. Accessed 27/02/2020.
- Botha, A.J., Andevski, J., Bowden, C.G., Gudka, M., Safford, R.J., Tavares, J. & Williams, N.P. 2017. *Multi-species action plan to conserve African-Eurasian vultures* (Vulture MsAP). Raptors MOU Technical Publication. www.cms.int/raptors/sites/default/files/publication/vulture-msap_e.pdf. Convention on Migratory Species. Abu Dhabi, UAE. Accessed 27/02/2020
- Brown, L.H. & Amadon, D. 1968. *Eagles, hawks and falcons of the world*. Country Life Books, London.
- Buechley, E.R., McGrady, M.J., Çoban, E. & Şekercioğlu, Ç.H. 2018a. Satellite tracking a wide-ranging endangered vulture species to target conservation actions in the Middle East and East Africa. *Biodiversity and Conservation* 27: 2293–2310.
- Buechley, E.R., Opper, S., Beatty, W.S., Nikolov, S.C., Dobrev, V., Arkumarev, V., Saravia, V., Bougain, C., Bounas, A., Kret, E., Skartsi, T., Aktay, L., Aghababayan, K., Frehner, E. & Şekercioğlu, Ç.H. 2018b. Identifying critical migratory bottlenecks and high-use areas for an endangered migratory soaring bird across three continents. *Journal of Avian Biology* 49: p.e01629.
- Clark, W.S. 1999. *A field guide to the raptors of Europe, the Middle East, and North Africa*. Oxford University Press, Oxford.
- Cortés-Avizanda, A.C., Ceballos, O., Urmeneta, A. & Donazar J.A. 2010. First case of albinism in Egyptian Vultures. *Journal of Raptor Research* 44: 328–330.
- del Hoyo, J., Elliott, A. & Sargatal, J. (Eds) 1992. *Handbook of the birds of the world. Vol. 2*. Barcelona: Lynx Edicions, Barcelona.
- del Hoyo, J. & Collar, N.J. 2014. *Handbook of the birds of the world BirdLife International illustrated checklist of the birds of the world. vol 1*. Lynx Edicions and BirdLife International, Barcelona and Cambridge.
- Ferguson-Lees, J. & Christie D.A. 2001. *Raptors of the world*. A&C Black, London.
- Forsman, D. 1999. *The raptors of Europe and the Middle East*. London: T & AD Poyser London.
- García-Ripollés, C., López-López, P. & Urios, V. 2010. First description of migration and wintering of adult Egyptian Vultures *Neophron percnopterus* tracked by GPS satellite telemetry. *Bird Study* 57: 261–265.
- Grande, J.M., Serrano, D., Tavecchia, G., Carrete, M., Ceballos, O., Díaz-Delgado, R., Tella, J.L. & Donazar, J.A. 2009. Survival in a long-lived territorial migrant: effects of life-history traits and ecological conditions in wintering and breeding areas. *Oikos* 118: 580–590
- IUCN 2020. The IUCN Red List of Threatened Species. Version 2020-1. www.iucnredlist.org. IUCN, Gland, Switzerland. Accessed 27/02/2020.
- Londei, T. 2018. An Egyptian Vulture *Neophron percnopterus* with largely pale bill in Djibouti. *Vulture News* 75: 33–35.
- McGrady, M.J., Karelus, D.L., Rayaleh, H.A., Sarrouf Willson, M., Meyburg, B.-U., Oli, M.K. & Bildstein, K. 2019. Home range and movement of Egyptian Vultures in relation to rubbish dumps in Oman and the Horn of Africa. *Bird Study* 65: 544–556.

- Meyburg, B.-U., Gallardo, M., Meyburg C. & Dimitrova, E. 2004. Migrations and sojourn in Africa of Egyptian Vultures (*Neophron percnopterus*) tracked by satellite. *Journal of Ornithology* 145: 273–280.
- Meyburg, B.-U., McGrady, M.J. & Sarrouf Willson, M. 2019. Oman's resident Egyptian Vulture *Neophron percnopterus* population appears much larger than estimated. *British Birds* 112: 535–540.
- Mishra, S., Kumar, A. & Kanaujia, A. 2018. A review on subspecies of Egyptian Vulture. *Journal on New Biological Reports* 7: 60 – 67.
- Mundy, P.J. 2014. Egyptian Vultures and the principle of subspecies in vultures. *Vulture News* 66: 60–65.
- Naoroji, R. 2006. *Birds of prey of the Indian subcontinent*. Christopher Helm, London.
- Oppel, S., Dobrev, V., Arkumarev, V., Saravia, V., Bounas, A., Kret, E., Veleviski, M., Stoychev, S. & Nikolov, S.C. 2015. High juvenile mortality during migration in a declining population of a long-distance migratory raptor. *Ibis* 157: 545–57.
- Porter, R.F. & Suleiman, A.S. 2012. The Egyptian Vulture *Neophron percnopterus* on Socotra, Yemen: population, ecology, conservation and ethno-ornithology. *Sandgrouse* 34: 44–62.
- Welch, G.H. & Welch, H. 1988. The autumn migration of raptors and other soaring birds across the Bab-el-Mandeb Straits. *Sandgrouse* 10: 26–50.
- Welch, G.H. & Welch, H. 1998. Raptor migration Bab al Mandab, Yemen — Spring 1998. *Phoenix* 15: 11–12.
