Vultures in Saudi Arabia

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Introduction
Six species of Old World vultures have been recorded in the Arabian Peninsula, with four breeding in Saudi Arabia (Jennings 1981; Shobarak 1999): the Bearded Vulture Gypaetus barbatus, Egyptian Vulture Neophron percnopterus, Griffon Vulture Gyps fulvus and the Lappet-faced Vulture Torgos tracheliotus. The Cinereous Vulture Aegypius monachus has been recorded as a migrant to the Arabian Peninsula and as a rare winter visitor to the central part of Saudi Arabia (Shobarak 1996). The Rüppell’s Vulture Gyps rueppellii has been recorded as a vagrant to the south west of Arabia (Jennings 1995). In this paper I will give an overview of the status of these vultures and the factors that affect their population status in Saudi Arabia.

1. Bearded Vulture
The Bearded Vulture is a rare resident in the western highlands (Jennings 1995). The species has a very precarious status in Saudi Arabia and it could be extinct as a regular breeding vulture in the Kingdom. In the late 1970s its population started to decline (Jennings 1995). The last record of the species in the wild by the author was in 1991 in Jebel Suda in the south west of Saudi Arabia. Jennings (1987) reported a sighting of three birds in the same area during his trips between 1975-1977. After not seeing any of these birds during a three-week trip to the Jebel Suda during July 1987, he considered the bird to be a rare species in Saudi Arabia. Although the number of ornithological reports on birds in Saudi Arabia has increased during the last two decades, ornithologists of the National Wildlife Research Center have only three records of the Bearded Vulture for the past 15 years. These observations were in three different areas, with more than 250 km distance between the sites (Patrick Paillat, pers. comm.). Therefore, the Saudi Arabia population is probably entering the extinction vortex and it probably no longer breeds in Saudi Arabia.

2. Egyptian Vulture
The Egyptian Vulture is the most common vulture over most of Arabia, except for the Empty Quarter and northern areas (Jennings 1995). In Saudi Arabia there is both a resident and a migratory population (Shobarak 1999). Up to 200 birds have been recorded at a wetland in the south west of Saudi Arabia (Rahmani et al. 1994). Birds have been recorded from many different areas of the Kingdom, even on Farasan Island in the Red Sea. Although little is known about this species in Saudi Arabia, the population is apparently decreasing (Jennings 1995; Shobarak 1999). Three nesting sites were found by the author: one in Jabel Sanam east of Hali town (Rahmani et al. 1994). The second was in Khashab plateau, to the east of Taif in the central western part of Saudi Arabia, and the last one was east of Ad Darb in the south western part of the Kingdom. The sites were visited several times during the last 10 year, but no nests were found and it seems as if these birds have abandoned the nests. The species could probably be considered as threatened in Saudi Arabia.

3. Griffon Vulture
The Griffon Vulture is a widespread resident in the western and southwest regions. It is an occasional migrant and winter visitor to the northern areas of Arabia (Jennings 1995). The resident population is apparently declining and it no longer breeds at some former breeding sites (Jennings 1995; Shobarak 1999). In 1999 a joint project between the National Commission for Wildlife Conservation and Development (NCWCD) and The British Vulture Conservation Society (BVCS) was initiated to study the factors affecting the Griffon Vulture population in Tanmah in the south west of Saudi Arabia, 120 km north of Abha. The initial results show that there is a decline of the Griffon Vulture population in Saudi Arabia. Out of 45 active nests counted in one colony in Tanmah in December 1999, there were only 25 active nests in January 2001. Also the number of birds counted in the same area declined from 200 birds in 1999 to 30-50 in 2001 (Foulds & Shobarak 2001). The study area will be extended to cover the population in the northern areas of Saudi Arabia.

During August 2002, a Griffon Vulture was
fitted with a transmitter at the Carmel Hills, north-west of Israel. It was subsequently tracked between Jeddah and Al Madinah (Bahat & Hatzofe undated; www.birds.org.il). This movement suggests that there is possibly a large metapopulation complex, which extend as far north as Turkey to the southern parts of Saudi Arabia.

4. Lappet-faced Vulture
The first record of this species in Saudi Arabia was in 1947, 125 km south-east of Riyadh (Jennings 1982). The status of the Lappet-faced Vulture has changed from being a very scarce breeding species in the Arabian Peninsula to being a widespread, almost common bird in the plains of west-central Saudi Arabia to the north of 19°N latitude (Newton & Shobrak 1993; Shobrak 1996). Its former distribution was largely restricted to the area between 23-27°N and 40-43°E (Jennings & Fryer 1984), but in recent years its range has extended along a broad front across the whole of west-central Arabia, from 19°N 45°E to 28°N 39°E. This change in status may not necessarily reflect an actual increase in numbers or an extension of the species range, but merely an artefact of the availability of better data.

The size of the population in Saudi Arabia has been estimated from available data to be in excess of 1000 individuals (Newton & Shobrak 1993). The movements of two birds fitted with satellite transmitter supports observations of seasonal changes in the abundance of Lappet-faced Vultures in the Mahazat as-Sayd protected area and suggested that some birds undertake short-distance migrations within Saudi Arabia. Therefore, there is probably some contact between the population in Saudi Arabia and populations in neighbouring countries and a single metapopulation could range over the entire Arabian Peninsula. It is therefore likely that the population of Lappet-faced Vultures is probably lower than the number estimated by Newton & Shobrak (1993). There may thus be concern for the conservation of the species in Saudi Arabia, which is currently considered by BirdLife International (2000) to be "vulnerable".

5. Cinereous Vulture
The bird was recorded as a winter migrant in the Middle East, Pakistan, north-western India and Korea (del Hoyo et al. 1994). In Saudi Arabia, the species is considered a very rare winter migrant (Shobrak 1996). At a Mahazat as-Sayd protected area, located in the central west of Saudi Arabia, birds have been observed every winter, roosting among the Lappet-faced Vultures. At the global level the species is considered as "vulnerable".

6. Rüppell’s Vulture
Jennings (1982) described this species as a vagrant to the Arabian Peninsula, with only one Arabian specimen and two sightings by Meinertzragen (1954). The specimen was collected near Taif. The observations were of birds at Ak Kunfuda and Kharaj Oasis. The bird thought to be the Taif specimen is in the British Museum and in recent years it has been shown that this record was false (Shobrak 1999) and the origin of the specimen was almost certain from the African side of the Red Sea. The sighting in Al Kharaj seems extralimital and is not accepted by any of ornithologists in Arabia (Jennings 1981). Therefore, its presence in Arabia is doubtful.

Factors responsible for the decline of the Saudi Arabia vulture population
On the Arabian Peninsula, the Lappet-faced Vulture is the most studied of all vulture species. The main aim of the studies carried out in the Mahazat as-Sayd protected area located in the central western area of Saudi Arabia was to obtain data that might assist in conserving the species in the Kingdom. The factors investigated were those known to be responsible for the decline in populations of other birds of prey: food supply, competition for food with other scavengers, breeding, and movements (Shobrak 1996, 2000). The study showed that disturbance at nesting areas is probably the major factor that affects the Lappet-faced Vulture in Saudi Arabia. Additionally, poisoning, pesticides, and road accidents have some effect on the population of this vulture (Shobrak 1996, 1999; Ostrowski & Shobrak 2001).

The causes of the decline in the population of other vulture species breeding in Saudi Arabia (Bearded, Griffon, and Egyptian) have not been studied. Shobrak & Rahmani (1993) reported on a Griffon Vulture that was poisoned by locust-control pesticides in the Tihama of Saudi
Arabia. Furthermore, during 2001 there was a large campaign to control the spread of Rift Valley fever, which occurs in the coastal plains of south-western Saudi Arabia. During this time a large quantity of unknown pesticide was used in the area and large numbers of sheep and goat carcasses were burned. This pesticide will probably have a large effect on the area’s vulture populations. Moreover, during 2002 two apparently poisoned Griffon Vultures were found at Taif area. One of the birds was in a particularly poor condition and died during treatment. The other was released after two weeks of treatment. The treatment consisted of an oral dose of 10 ml Dextrose (5%, diluted with normal saline) and 0.5 ml Amoxicillin (20mg/ml) for three days. During the fourth day the bird started to feed itself and showed normal behaviour and the treatment was stopped.

Disturbance by rock climbers at breeding sites may also affect Griffon Vultures in south-western Saudi Arabia. Therefore, it is likely that the factors that resulted in a decline in Lappet-faced Vulture populations may also have caused a decline in populations of Griffon Vultures. These factors include disturbance at nest sites, contamination from pesticides, and poisoning (Shobrak & Rahmani 1993; Gasperetti 1994; Foulds & Shobrak 2001).

Another indirect factor that could have had an affect on the Griffon, Egyptian and Bearded Vultures is the disappearing of large carnivores in Saudi Arabia (Shobrak 1999). To illustrate this, the bills of these three vulture species are not adapted for tearing open the skin of carcasses; they need assistance to open the carcasses, which would have been done by large carnivores, such as wolves Canis lupus and striped hyaenas Hyaena hyaena. These large carnivores have started to disappear from most of the areas where these vultures are found (Seddon 1996). This could be an indirect cause of the decline of the vulture populations in Saudi Arabia. Vulture conservation should therefore be linked with concurrent efforts to preserve and restore carnivore populations.

Another factor that could have an affect on avian scavengers is the “desert tar trap” (Shobrak 1996). This tar trap occurs near the road in summer only, when ambient temperatures are high. The tar trap results when hot tar, buried by road contractors, would rise to the surface, trap livestock and then possibly attract vultures that could be trapped or poisoned. Four Lappet-faced Vultures were seen near 13 goats trapped in this desert tar near Mahazat as-Sayd protected area. Although the birds were not observed feeding on the carcasses (as Brown-necked Ravens Corvus ruficollis did) there is a possibility that they may have fed later.

In conclusion, there are three vulture species still breeding in Saudi Arabia: Lappet-faced, Griffon and Egyptian Vultures, while the Bearded Vulture has recently become extinct as a breeding species. The population of vultures is declining through direct (poisoning, pesticides, road casualties and disturbance) and indirect (tar trap and the disappearance of mammalian scavengers) factors. A vulture conservation strategy should be implemented before additional species become extinct; failing this conservation measures will be very costly and maybe impossible.

References


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