

Egyptian Vultures extending to new landscapes in southern Tamil Nadu: Need for measures

Vultures being obligate or opportunistic scavengers play a keystone role in the ecosystems' health (Buechley & Sekercioglu 2016; DeVault et al. 2016). Botha et al. (2017) assessed them as the most threatened guild of birds in the world due to anthropogenic factors. Among the seven species of vultures seen mainly in Moyar of Nilgiri Biosphere Reserve, Egyptian Vultures are the only species sighted regularly in a few southern districts of Tamil Nadu in the last decade.

The Egyptian Vulture *Neophron percnopterus* from the family Accipitridae is locally known as 'Kodangi Kazhugu' and 'Thirukazhukundra Kazhugu' in Tamil. The vulture is mainly found in savanna, shrubland, grassland, wetlands, and rocky areas (cliffs and mountain peaks) in Asia, Africa, and Europe. The species is listed as Endangered on the IUCN Red List owing to a recent and extremely rapid population decline in India (>90% in the last decade), Europe (50–79% over the last three generations), and Africa (BirdLife International 2022). The species is declining in virtually all parts of its range, apparently for several different reasons that include, disturbance, lead

poisoning, direct and secondary poisoning, electrocution, collisions with wind turbines, reduced food availability, and habitat change. Egyptian Vultures, also known as the White Scavenger Vulture or Pharaoh's Chicken, used to be a common sight in the countryside in the drier parts of Tamil Nadu about three decades ago. The Egyptian



Egyptian Vulture on cattle carcass at Pothaiyadi, Tirunelveli ©N. Raveendran



Three Egyptian Vultures together sighted at Sivakalai, Tirunelveli ©Anitha Veeravendhan

Table 1. Egyptian Vulture sighting reported in southern Districts of Tamil Nadu post 2010

Year and Month	Name of the place, District	Total No of birds sighted	E bird/ Others
2013 May	Naguneri, Tirunelveli	2	E bird
2013 March	Koonthamkulam, Tirunelveli	2	E bird
2014 January	Vallanadu, Thoothukudi	2	E bird
2015 June	Vagaikulam, Thoothukudi	2	Others
2015 June	Kaspa Tank, Thoothukudi	2	Others
2016 January	Koonthakulam, Tirunelveli	1	E bird
2016 January	Naguneri, Tirunelveli	1	E bird
2016 October	Pothaiyadi, Tirunelveli	1	E bird
2016 November	Pothaiyadi, Tirunelveli	1	E bird
2017 January	Koonthamkulam, Tirunelveli	4	E bird
2017 November	Pothaiyadi, Tirunelveli	2	Others
2017 November	Vallanadu, Thoothukudi	1	E bird
2019 December	Thoothukudi	1	E bird
2020 January	SAC Women's college, Cumbum, Theni	1	E bird
2020 January	Vaagaikulam, Srivaikuntam, Thoothukudi	3	E bird
2021 September	Koonthamkulam, Tirunelveli	2	Others
2022 January	Pothaiyadi, Tirunelveli	2	Others
2022 January	Sivakalai, Tirunelveli	2	Others

Vulture sighting records compiled post 1972 by Siva & Quadros (2021) showed that 37 observations spread over 16 districts of Tamil Nadu, and the maximum sightings were from the Tirunelveli District.

We have several records of sightings of Egyptian Vultures from birders and ourselves (both from e bird and others) and this has been compiled post 2010 from southern districts of Tamil Nadu (Table 1).

In 2013, in Koonthamkulam Bird Sanctuary (Tirunelveli District, Tamil Nadu) the sighting of two juvenile vultures was feeding on the

carcass of a cow. After 10 minutes they flew away. In 2014, bird were sighted in Vallanadu, followed by Vagaikulam and Kaspa Tank 2015. In 2017, the repeated sighting was in Vallanadu, Kootampuli in 2019, and Mudivaithanendal in 2020 (Vinoba pers. comm.). In 2020, another juvenile was sighted in the Perungulam tank near Sivagalai in September 2020 (Sakthi Manickam pers. comm.). In Tirunelveli suburbs, it was sighted on four occasions in 2020, besides Pattukottai in March 2020 and Cumbum in January 2020 and February 2021. They are both sighted mostly in Thoothukudi and Tirunelveli districts in southern Tamil Nadu

and interestingly all are juveniles and sub-adults. The juveniles flaunt brown feathers while those of sub-adults are a blend of white and brown (Grimmett et al. 2011).

Ramnagara and Mysore districts in neighbouring Karnataka have recorded breeding populations (Samson & Ramakrishnan 2016). In 2013, the last breeding pair of Vultures were recorded from Thenkanikottai near Hosur near the Karnataka border. The exact reason for Egyptian Vulture decline in Tamil Nadu is yet to be studied. The major reasons widely believed by conservationists are feeding on poisoned rats, harmful effluents of leather tanning industries, and toxification of dump yards. They generally scavenge at dump yards and feed on carcasses of domestic livestock carcasses, wild animals, human food waste (Milchev et al. 2012), and eggs of other birds. They also feed on worms in cow dung, and other insects. The use of deworming drugs in cattle and pesticide-laden insects could also lead to their death.

One of the assumptions of the Egyptian Vulture sighting in these districts is that they descend from Moyar Valley of the Nilgiris and fly down to grasslands where they could feed on dead animals and carcasses. Most of the sightings of the birds in southern Tamil Nadu, especially in the districts of Tirunelveli and Thoothukoodi are juveniles. According to the farmers, the vultures generally arrive to feed on the dead cattle (carcass) within the second day. The timing of Egyptian Vulture arrival and the sightings of only juveniles is

to be probed and monitored further, as there were records in the early 1980s about the breeding population of Egyptian Vultures in south Tamil Nadu. Multiple sightings every year in the last decade from various parts of Tamil Nadu other than the established areas of Moyar Valley in Nilgiris is a positive sign of population revival.

Breeding performance is one of the main components of the demography of a raptor population. An exhaustive search of the hillocks in all southern districts of Tirunelveli, Thoothukudi, and Kanyakumari should be done to identify nests and any breeding populations. Exhaustive studies on its demography may serve as an important stepping stone for successful conservation programs. So, for the revival of the population we need to understand the factors responsible for its decline. Reinforcement of the population through restocking might also have a positive effect on the population trend but only when it is applied together with measures reducing mortality (Veleviski et al. 2014). Supplementary feedings and nest guarding as conservation tools could be applied in territories with low occupancy rates to not only improve the quality of the territory in terms of food availability but also to decrease the probability of disturbance, and direct persecution.

Conservation measures mitigating the main threats such as poisoning, electrocution, and poaching should be a priority in these territories to secure the survival of the most productive pairs and their fledglings.

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