

Decline of vultures in Sriharikota, Nellore District, Andhra Pradesh, India

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Nine species of vultures including five *Gyps* species, Indian White-backed Vulture *Gyps bengalensis*, Long-billed Vulture *G. indicus*, Slender-billed Vulture *G. tenuirostris*, Himalayan Griffon *G. himalayensis* and Eurasian Griffon *G. fulvus* are found in India. The *Gyps* vultures, and especially the first three species, have faced severe population declines in the past decade. Prakash (1999) reported >95% decline in the population of Indian White-backed and Long-billed Vultures in Keoladeo National Park, (Bharatpur, Rajasthan), between 1988 and 1999. This was the first alarm call of the crisis in the country. Both these species were till the early 1980s common throughout the subcontinent (except in the southern-most states of India) without any apparent threats to their existence (Grub 1983; Grub *et al.* 1990). However, with the recent declines, the species along with the Slender-billed Vulture are now classified as "Critically Endangered" (BirdLife International 2001).

Prakash (1999) evaluated the possible causes for the vulture decline such as availability of food, nesting habitat, chemical contamination and disease, and concluded that disease and chemical contamination were the most likely causes (Prakash 1999; Prakash *et al.* 2003). However, recently, Diclofenac, the drug given to cattle, has been cited as the primary cause of vulture mortality in Pakistan (Oaks *et al.* 2003). In recent years, awareness of the vulture crisis has spread among wildlife researchers and birdwatchers in the country (Khalid *et al.* 2001; Sundar 2002). In this note we report on the decline of vultures in Sriharikota Island and its environs.

Sriharikota is a spindle shaped island (c181km²), situated largely in Nellore district of Andhra Pradesh, bounded on the east by the Bay of Bengal and on the west, north and south by Pulicat Lake. The Island is acknowledged to have one of the last remaining, largest and best-preserved, patch of Tropical Dry Evergreen Forest in India. Between 1969 and 1972, the Island was taken over by the Indian Space Research Organisation (ISRO) after evacuating the villagers, to set up India's spaceport. At present, other than the establishments and residential zones in the Satish Dhawan Space Centre, SHAR (SDSC, SHAR), most of the

area is under forest cover and well protected.

According to the BNHS (Rao 1998), there were around 75 to 100 Indian White-backed Vultures on the Island, and breeding was observed regularly in the early 1990s. Only the Indian White-backed Vulture is reported from Sriharikota (Rao 1998, this study), but a flock of 14 Long-billed Vultures were sighted at a carcass on the mainland near Sullurpet, 18km from Sriharikota in November 2001. When we set-up our field station to carry out an ISRO-funded project on the faunal diversity of the Island during the end of 2001, we used to occasionally see about 15 to 20 Indian White-backed Vultures in and around Sriharikota. We also located a nest in February 2002 on a 15m high Tamarind tree. The nest was found deserted during a visit in early March and a broken eggshell was found below the tree. We had seen a pair of Jungle Crows *Corvus macrorhynchos* disturbing the incubating vulture on an earlier visit. Sightings of vultures declined with the passing years and since the second half of 2003 we have not sighted any vultures in Sriharikota and around Sullurpet. Carcasses of cattle now lie largely uneaten, except by stray dogs. Thus, it is evident that a decline in the population of the Indian White-backed Vulture has also taken place in the Sriharikota area.

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