



Threat to Red-wattled Lapwing persistence –A short note on interaction between Red-wattled Lapwing (*Vanellus indicus*) and domestic dog (*Canis familiaris*) in agricultural areas

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Red-wattled lapwing (*Vanellus indicus*) is a prominent bird of Asian agricultural lands and is currently classified as Least Concern by IUCN red list (Arlott 2014), and belongs to the family Charadriidae. From Indian subcontinent, seven species of lapwings have been reported, among them three are endemic to the Indian subcontinent i.e., River lapwing (*Vanellus duvaucelii*), Yellow-wattled lapwing (*Vanellus malabaricus*), and Red-wattled lapwing (*Vanellus indicus*). Red-wattled lapwing has compact body, short and thick neck



Figure 1: Red-wattled lapwing (*Vanellus indicus*)

with conspicuous black collar, long yellow legs, and brownish grey pointed wings (Kaur and Khera 2017). The prominent characteristic features are loud annoying alarm calls “did he do it or pity to do it”, which is why it is called the did-he-do-it-bird (Kaur and Khera 2017). Red-wattled lapwing lives as ground bird and prefers to live in an open kind of habitat nearby water.



Image 2: Breeding pair in post harvesting farm

During breeding period of lapwing, which generally extends from April to June (Dhandhukia and Patel 2015; Kumar et al. 2020), We have observed the interaction of Red-wattled lapwing with dogs (*Canis familiaris*), House crow (*Corvus splendens*), and human beings in the farm of Changa village (Kankrej) district- Banaskatha of



Gujarat (23° 57'59.5 N, 71°46'56.8" E). Red-wattled lapwing laid eggs on a post-harvesting farm of millet with a clutch of 4 eggs in the mid of the farm and the nest was located on a little depression of land surrounded by small twig (Figure 2).

In the early morning of 8th April, 2021 and on evening 9th April, 2021, we have observed that a dog (*Canis familiaris*) was roaming on the farm, seem like he was searching for food, suddenly two individuals of Red-wattled lapwing (Probably parent) started making aggressive noise and tried to attack the dog, and that time lapwing was successful to keep

away dog from the nest. We have also observed that lapwing also tried to attack house crow (*Corvus splendens*), who tried to approach nest. Besides this, once when I was looking for the nest, lapwing started making aggressive noise and tried to attack me by flying speedily towards me, so I



had to left the farm. After few days on 17th April, when I visited the farm

Image 3: Dog (*Canis familiaris*) fleeing from the farm after attacked of lapwing.

again, I could not find lapwing or nest. After inquiring and interacting with the owner of the farm, we came to know, that probably dog have destroyed the nest. We can conclude this due to presence of two dogs in the field before few days. It is now known that eggs of lapwing may lost due to some predators; may be Grey Mongoose (*Herpestes edwardsii*), or Crow (*Corvus splendens*), or Kite (*Milvus spp*), or Dogs (*Canis familiaris*), or human activity (Ploughing), and trampling by grazing animals (Naik et al. 1961). Hence due to the high rate of unsuccessful hatching and less survival ratio on ground nest, compared to the roof nest (Sethi et al. 2011), lapwing has evolved to build a nest on the roof, which is having a high rate of success in hatching and its survival (Baumann 2006; Muralidhar and Barve 2013). Generally, Red-wattled lapwing feeds on small insects and different invertebrates, thus they play an important role in biological control and pest management (Ali & Ripley 1998; Narwade et al. 2010; Kler & Kumar 2013; Kaur & Khera 2017), but despite the role of bio agents in the farm, population of lapwing is declining, due to loss of habitat and intensive agricultural practice. Besides this nest may lost due to feral dogs, uncontrolled agricultural practices (plowing), trampling by grazing animals, which contribute significantly in dimishing the population of lapwing. Thus, it is imperative to check the influence of



agricultural practices over lapwing breeding and the persistence of the population. This short observation may help to assess the threat to lapwing as well as it shows that lapwing is a highly territorial bird and has effective defensive strategies, however there is question: Will lapwing persist in human modified areas?

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