

Seasonal abundance and factors influencing the population of Asian Open-Billed Stork (*Anastomus oscitans*) in the Raiganj Wildlife Sanctuary, West Bengal, India

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ABSTRACT

The Open-billed stork, *Anastomus oscitans* in the Raiganj wildlife sanctuary, preferred the core region than buffer region of the sanctuary for nesting as though core region was relatively undisturbed and rich in food for stork. In two breeding seasons, the fledgling success was greater at the nests that were located in the core region than in the buffer region of the sanctuary. The availability of food in the nearby areas and protection from the predators were the main factors for rising storks' population. The Open-billed stork built more nest in the year 2008 than in the year 2007. They selected 599 trees for nesting of which 249 trees were *Lagerstroemia speciosa* in the year 2007 which increased to 615 trees for nesting of which 280 trees were *Lagerstroemia speciosa* in the year 2008. The percentage of unhatched eggs, damaged eggs by predation, storm and heavy rain was higher in the year 2007 than in the year 2008. The nestlings death mainly caused by storm and heavy rain, by dropping during first flight and by predation. The main natural predators of the species in the sanctuary were House crow (*Corvus splendens*) and Bengal monitor (*Varanus bengalensis*). The overall hatching success and fledging success were 91.71% and 83.96% in the year 2007 which increased to 94.86% and 87.95% in the year 2008 respectively. The breeding behavior of Open-billed stork was disturbed by visitors and villagers activities and by vehicles during breeding season in the sanctuary. The villagers also invaded to collect fire wood into the buffer region as well as core region of the sanctuary during breeding season. As though the Open-billed stork can tolerate this type of disturbances, so they can breed in the sanctuary. But disturbed birds may show increased failure rates despite their lack of immediate behavioural responses to human pressure. The number of stork population was increased from 44816 to 58920 in the year 2007 and 2008 in the Raiganj Wildlife Sanctuary. It may be due to the availability of nesting trees, nesting materials, availability of safe nesting zone and availability of food of this particular bird species. But proper management should be taken to increase their successful breeding.

Key words: Open-billed stork, Raiganj wildlife sanctuary, rain and storm, visitors disturbance, fledgling, hatching