

Largest breeding colony of Greater Adjutant, *Leptoptilos dubius* Gmelin, in Dadara-Pasariya-Singimari Villages in Assam, India

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This note provides the findings of recent monitoring of a breeding colony of *Leptoptilos dubius* (Greater Adjutant) in Assam, India, which represents one of the largest extant nesting colonies of this species. The Greater Adjutant's habitat has been greatly impacted by human development and a number of historical colonies have decreased in numbers or disappeared, heightening the importance of monitoring and conservation efforts to protect this species and its habitat. We record a new nesting colony in Maloibari, Kamrup (Metro).

Leptoptilos dubius Gmelin (Greater Adjutant) is a globally endangered bird breeding in Assam and Bihar in India and Prek Toal Bird Sanctuary and Northern Plains in Cambodia (Birdlife International 2013). Its population in Assam is estimated at about 600–700 birds (Barman *et.al.* 2014) and the state is considered to be its last stronghold. In Assam, it is only distributed along the Brahmaputra valley (Singha *et.al.* 2003). In Bihar, about 150 birds were recorded in few breeding colonies (Mishra and Mandal 2009). Current estimated population in Cambodia is about 200 birds (Clements *et.al.* 2007).

In Assam, this colonial nesting bird breeds in very few traditional nesting colonies. This bird forms its breeding colony in tall trees within densely populated villages and distributed within one or two kilometers of the periphery of the village boundary. The bird mainly prefers tall trees of *Alstonia scholaris* L.R. Br. (Indian Devil Tree), *Neolamarckia cadamba* (Roxb.) Bosser (Kadamba), *Artocarpus heterophyllus* Lam. (Jack Tree), *Pithecellobium monadelphum* Kosterm (Moj), and *Bombax ceiba* L. (Simul or Cotton Tree) for nesting. We recorded up to 10 active nests in one single *Artocarpus lacucha* Buch.-Ham. (Dewa or Monkey Jack) tree.

We are working for conservation of this bird in Assam since 2009. We are working extensively in the Dadara-Pacharia-Singimari nesting colony (26° 13'13.47"N and 91°38'03.03"E 91.341750°E) of Kamrup District for its conservation. We monitor this nesting colony for various breeding and foraging parameters. We have been recording nest-building behavior, clutch size, incubation, hatching success, population recruitment, diurnal feeding behavior and parenting in this breeding colony. Breeding season starts in August and ends in April. Nest counting was done on every month of the breeding season, and we considered each active nest as a successful one. We recorded the following numbers of successful nests (with hatchlings): 95 in 2009–2010, 90 in 2010–2011, 114 in 2011–2012, 152 in 2012–2013, 128 in 2013–2014 and 171 in 2014–15. This nesting colony is now the biggest Greater Adjutant nesting colony in the world, as such a large number of nests have not been recorded other nesting colonies in India or Cambodia. The few earlier studies (Hume 1890,

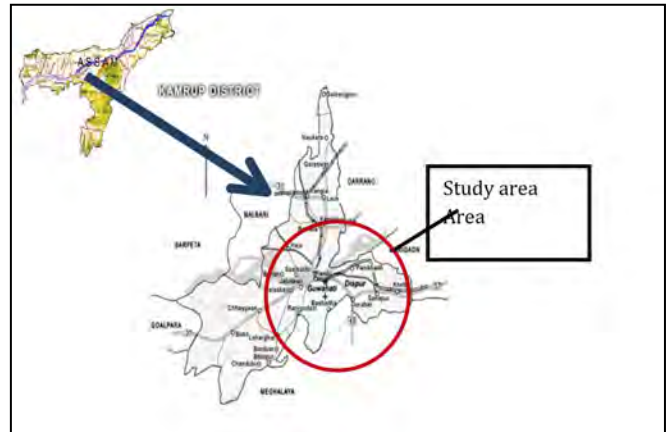


Fig 1. Study area



Fig 2. Four chicks in a single nest



Fig 3. Three chicks in a single nest

Photos by Purnima Devi Barman

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Fig 4. One chick in a single nest



Fig 5. Greater Adjutant nesting in human habitation



Fig 6. First author with the 75 feet tall machan used for the study. Photo Rathin Barman

Singha *et al.* 2003b) opined that average clutch size is 1–3 eggs, very rarely 4, per nest. Saikia and Bhattacharjee (1996) recorded clutch size between 2 and 3 per nest. While none of these studies documented hatching success up to 4 in a single nest, in 2014, for the first time in our study, we observed hatching success of 4 chicks in at least four nests in this breeding colony.

Due to heightened awareness and motivation in the villages in last 5 years time, not a single nesting tree has been cut down in the Dadara-Pacharia-Singimari nesting colony. The villagers have now developed a feeling of ownership for the bird and have become the protectors.

In Assam, we are monitoring the other nesting colonies, too. In recent decades, many of the traditional nesting colonies are no longer found because of the cutting down of its traditional nesting trees. The nesting colony in Nagaon, once considered as the biggest colony in Assam, has shrunk to only a few trees with very few nests. However, we recorded a new nesting colony in Maloibari in Kamrup District in 2011. This nesting colony is about 60 km away from the Dadara-Pacharia-Singimari colony. At this colony, Greater Adjutant nests in only four *Bombax* trees located next to a small river. We have recorded 26 nests in these four trees. This nesting colony was not noted by earlier studies and could be considered to be a new nesting colony for this bird in Assam.

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