

POPULATION COUNT, NESTING RECORDS AND CONSERVATION THREATS OF ADJUTANT STROK (GAS & LAS) IN BRAHMAPUTRA VALLEY, ASSAM, INDIA

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ABSTRACT

One of the rarest stork in the world, GAS (*Leptoptilos dubius*) IUCN Endangered category found in the Brahmaputra valley specially Deepor Beel Ramsar Site. Present study was done to evaluate population count, nestling and threat factors towards its survival and conservation. It was reported previously in Myanmar and even not a single individual have been reported recently. The only recent reports of GAS breeding colonies are from Assam & Combodia. The Greater adjutant stork are threatened and at the path of extinction and deserves special strategy for conservation. The LAS also alarmingly declined day by day and declare vulnerable by IUCN. Anthropogenic disturbances are the root causes for threats of both the stork species.

KEYWORDS : GAS, LAS, Ramsar site, Anthropogenic

The *Leptoptilos dubius* (GAS) is a common resident and most threatened STROK and distributed almost throughout the Brahmaputra valley of Assam (Saikia and Bhattacharya, 1983, 1989) except Goalpara and Dhubri district. Its neck and head without hair or feather and colour with reddish-yellow. The gular pouch, which hangs from the base of the neck, and slaty white greater secondary coverts are the characteristics features of identification. Large population found in Deepor beel Ramsar site. The *Leptoptilos javanicus* (LAS) is also common resident and vulnerable birds distributed widely almost throughout the Brahmaputra and Barak valley of Assam. Large population of LAS are found in Barpeta, Dhubri, Nalbari, Kamrup, Nagaon, Darrang, Lakhimpur, Dibrugarh, Tinsukia and Jorhat District etc. and less abundant in Barak Valley. The red data book of Asia has enlisted the species as a globally threatened bird. (Bird Life International, 2001).

STUDY AREA

The study was carried out in Barpeta district and Daulasal area of Nalbari district (Western boundary of Nalbari District) lies between 26°50'N 26°49'N and 90°39' 91°17'E, covering an area of 3307.3 km². The study has been carried out in Bhawanipur, Kapla Beel Complex and Kalahabhangha, Puthimari, Hahchara, Bhella Beel, Sorbhog and Nagaon (Barpeta District) and in Daulasal area of Nalbari district. The study area also covered Deepor beel Ramsar site of 10.1 sq. km. The total area extends up to 40 sq. km.

METHODS OF STUDY

Regular surveys were carried out between Oct/09 to Feb/10. The nest and total numbers of stork were counted. The surveys were conducted from morning 05:30hrs to 17:00hrs. There were altogether 36 survey tips covering within 12 months record having at least 3 trips per month.

RESULTS AND DISCUSSION

Altogether 20 numbers of non breeding and foraging GAS recorded around wetlands of Kapla beel complex, Daulasal, Dangarpara (Bhawanipur Dakshinhati) and Nagaon (Barpeta dist.). Five nests were also found in Daulasal and two in Dangarpara (Bhawanipur) area, of which Dangarpara nesting colony was not reported earlier and was a new sighting. The nests were found in Simul (*Bombax ceiba*) and Kadam tree (*Anthracheplus camdamba*).

Altogether 168 number of adult Strok and 31 live Nests of LAS were recorded at all surveys in different pockets of Barpeta and Daulasal area during study period. (table 1&2).

Conservation Threats

Study revealed that, most of the nesting trees used by both GAS and LAS were *Anthrocephalus cadamba* and *Bombax ceiba* in Barpeta and Doulasal nesting areas. Assam is the only stronghold for the conservation of nesting colonies and populations of GAS & LAS. More than 80% global population has been survival. Hence its protection is urgently being needed. Its main threats are the destruction of

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Table 1: Numbers of GAS&LAS recorded in different locations of Barpeta district & Daulasal area with sighting dates

Sighting locations	Species	Observation dates	Number dates
Kapla beel Complex	GAS	5/11/03	4
	LAS	5/11/03	32
Puthimari beel	GAS	28/11/03	-
	LAS	28/11/03	16
Daulasal	GAS	14/12/03	8
	LAS	14/12/03	14
Hahchara	GAS	14/12/03	-
	LAS	14/12/03	14
Bhawanipur (Dangarpar)	GAS	7/11/03	5
	LAS	7/11/03	22
Bhella Beel	GAS	5/2/03	-
	LAS	5/2/03	18
Sorbhog	GAS	5/2/03	-
	LAS	14/02/04	19
Kalabhanga	GAS	14/02/04	-
	LAS	21/02/04	12
Nagoan (Barpeta)	GAS	21/02/04	3
	LAS	21/02/04	21

Table 2: Nesting trees with number of nests of GAS&LAS in different locations Barpeta and Nalbari district with dates

Location	Species	No. of nest	Nesting trees	Date
Daulasal (Nalbari district)	GAS	5	S,K	3/2/04
	LAS	6	S,K	do
Dangarpar (Bhawanipur)	GAS	2	S,K	5/2/04
	LAS	5	S,K	do
Chenga	GAS	-	-	3/2/04
	LAS	4	S,K	do
Nagoan (Barpeta)	GAS	-	-	20/1/04
	LAS	9	S,A,K	do
Keotkuchi	GAS	-	-	29/12/03
	LAS	3	S,F	do
Bhella	GAS	-	-	do
	LAS	3	S,K	do

S: Simul tree; K: Kadam tree; F: Fiscus species

nesting trees and loss of potential wetlands and habitats, owing to extensive tree cutting in rural areas, soil erosions and wetland eutrophications and extensive uses of pesticide around the wetland habitat etc. Another major threat is the hunting of GAS and LAS by some Gypsy people, called Baida or Bedeni coming from western part of dhubri and outside Assam engaged for hunting during the resting period of birds with some traditional birds killing technique called as shars. The greater adjutant stork feeds on urban animal matter when ecological density of fish in wetland habitat has declined. The uses of nondegradable pollutant like DDT through biomagnifications enter into different trophic level and GAS and LAS and causes premature hatchling. (Khan, 1984; Luthin, 1987; Mundkur, 1995).

REFERENCES

- Bird Life International, 2001. Threatened bird of Asia: the birdlife international Red Data Book. Cambridge.
- Khan M. A. R., 1987. Conservation of stork and other water birds in Bangladesh, *olonial Water Birds*, **10**:229-235.
- Luthin C. S., 1987. Status and conservation priorities of world stork species. *Colonia Water Birds* **10**: 181-202.
- Mundkur T., Sun Hean and Chhim S., 1995. Large water birds in Cambodia, March April, 1994. IUCN Specie Survival Commission. Cambridge, U.K.
- Saikia P.K. and Bhattacharjee P.C., 1993 Status, diversity and decline of water birds in rahmaputra valley, Assam, India. *Bird Conservation strategy for the nineties and eyond*, Ornithological Society of India:20-27.
- Saikia P. K. and Bhattacharjee P. C., 1989. A preliminary survey of Adjutant stork in Assam.. *Assam Wetland News*, **2** (2):14-15.