



Abnormal nest of baya weaver (*Ploceus philippinus*) from north Gujarat, India

The baya weaver, *Ploceus philippinus* is a widespread resident bird throughout the Indian Subcontinent and is commonly found in open cultivation usually near water, in grasslands and scrublands (Rasmussen & Anderton 2012). Its breeding season depends primarily on the southwest and northeast monsoon lasting from April to October (Ali & Ripley 1999). The species is particularly known for its unique nests built by males in colonies. The number of nests in each colony varies from 2–250 (Davis 1974). The nest is a retort-shaped structure with a long vertical entrance tube, densely woven out of strips of leaves of paddy, sugarcane or coarse grass, and blobs of mud are fixed inside the dome near the egg chamber (Hume & Oates 1890, Ali 1931). Moreover, the nests are usually built on branches of trees that overhang a water body which protects it from rats and other terrestrial animals (Khan 1799). A complete baya weaver nest is a retort-shaped construction consisting of three parts: stalk, body, and entrance tube. Sharma (1995) classified 16 types of abnormal nests based on structural, orientation, and abnormalities. Abnormalities in the nests can appear as duplication of the parts, and/or formation of the additional parts, and/or elaboration of the normal parts, and/or absence of normal parts (Sharma 1995).

On 21 July 2019 at ~8:30 hrs, we saw an abnormal nest of baya weaver at a nursery (23° 32'55.35"N, 72°22'45.14"E) on the outskirts of Mehsana City. It appeared to be a fusion of three nests and hung 2 m above the ground. The colony was built on an Indian cork tree *Millingtonia hortensis* (Bignoniaceae). It was noticed that there were no water bodies surrounding the colony or in the nearby area. During this study, a total of nine nests were found on the tree, out of which two were abnormal. In one case, nest 1 and nest 2 were hanging from separate stalks, both were partially fused externally at a junction forming a structure

like a fused branching nest, while nest 3 was a blind nest also attached externally to nest 1 and nest 2 (Fig. 1A). Based on the classification of Sharma (1995), we identified them as mixed abnormal nests with a combination of two abnormalities (fused branching nest and blind nest). As the nesting activity was finished, we collected the mixed abnormal nest, and six variables were selected for measurements (Table 1). Further, an attempt was made to measure the internal structure (the entrance and incubation chamber; Fig. 1B).

Table 1. Measurements (in cm) of baya weaver nests

Variable	Nest No.		
	1	2	3
Stalk length (SL)	19.0	21.0	12.0
Body length (BL)	16.0	16.5	16.0
Body diameter (BD)	13.5	14.5	13.0
Entrance tube length (ETL)	30.0	32.0	—
Entrance tube starting diameter (ETSD)	8.3	5.2	—
Entrance tube ending diameter (ETED)	5.9	5.9	—

This abnormal nest could be one of the most complicated nests (Sharma 1995). Among baya weaver, the most common abnormality is the double or tandem or multi-storeyed nest, consisting of one nest suspended from the end of the entrance tube of a complete upper nest (Ali & Ambedkar 1956). Similar abnormal nests of the same species have been reported from different parts of India (e.g. Ambedkar 1958, 1980, Davis 1985, Sharma 1985, 1988, Borkar & Komarpant 2003, Ali 2010, Achegave *et al.* 2016, Pandian 2018, 2021).

In the present study, the nesting colony suffered high predation by snakes (as per the observations of the nursery owner), which may be the reason for the abnormal nest construction and a possible reason for abandoning the nests. Snakes (e.g. *Boiga gokool*, *Xenochrophis piscator*, *Ptyas mucosus*) and some birds (e.g. *Dendrocitta vagabunda*) have been observed preying on a baya weaver colony and

Plate 20

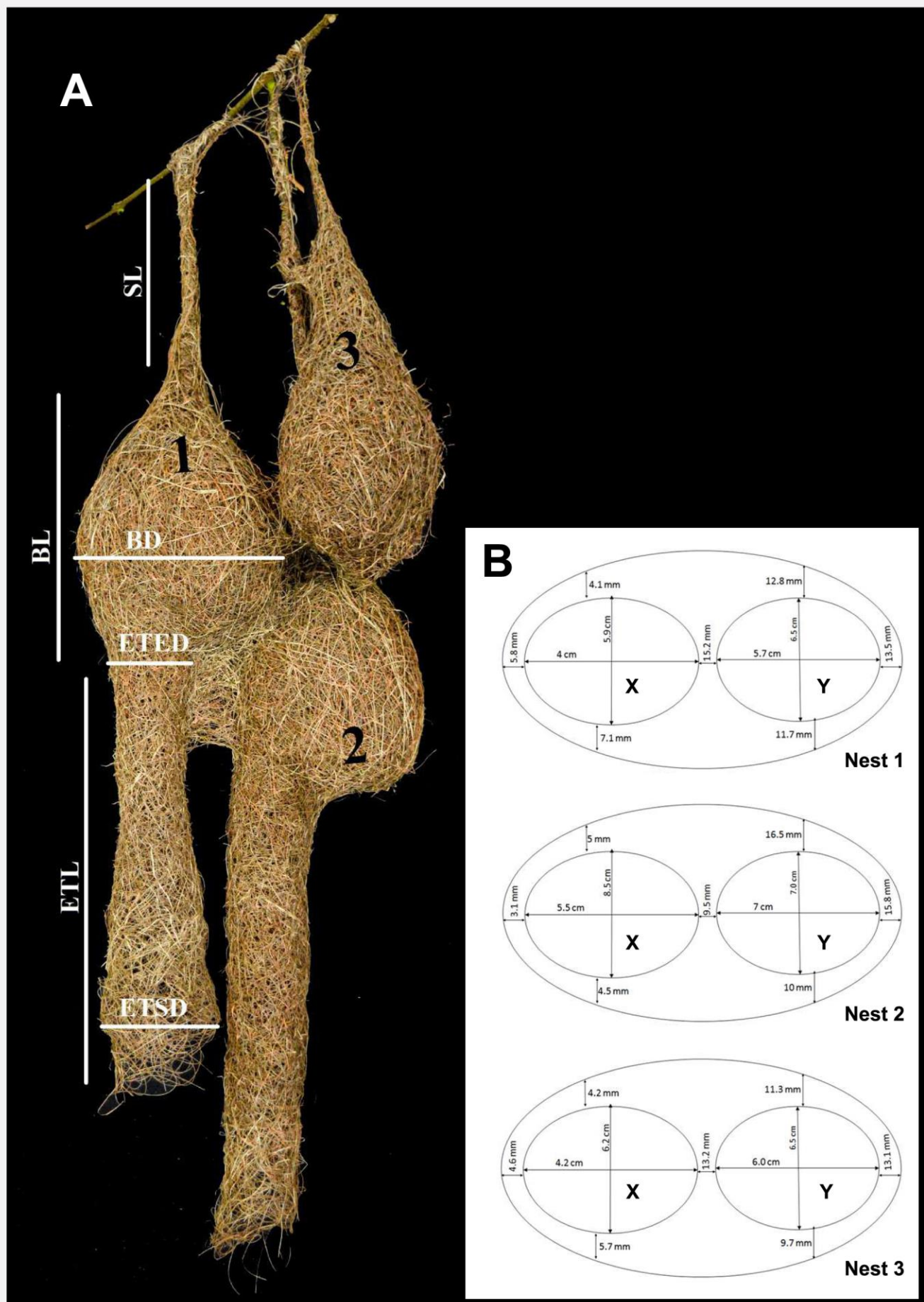


Figure 1. (A) The external view and (B) internal structure of the mixed abnormal nest built by baya weaver, *Ploceus philippinus*, with its morphometric data; X = entrance chamber, Y = incubation chamber

protection of the nest content could be a possible reason for constructing such multi-storeyed nests, as snakes and other predators may find it more challenging to predate upon the eggs/nestlings due to the increased length of the nest (Barnes 1887, Ambedkar 1978, Pandian 2021). Though abnormal nests have greater chances of survival, their complex structure requires enormous effort and time to build (Ali 2010).

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