

Study of Nesting pattern and Breeding Biology of *Prinia socialis* in forest office of Bhokar Dist. Nanded (Maharashtra) India

Balkhande Jayvardhan¹, Chavhan Arvind¹ and Shaikh Azeem Issak²

¹Department of Zoology, D. B. College, Bhokar Tq. Bhokar Dist. Nanded, MS, India

²Kailas Nagar, Nanded.

Email: cageculture2014@gmail.com

Manuscript details:

Received: 03.08.2017
Accepted: 29.11.2017
Published: 14.12.2017

Editor:

Dr. Jadhao R.G.

Cite this article as:

Jayvardhan Balkhande, Arvind Chavhan and Shaikh Azeem Issak (2017) Study of Nesting pattern and Breeding Biology of *Prinia socialis* in forest office of Bhokar Dist. Nanded (Maharashtra) India; *International J. of Life Sciences*, 5 (4): 635-638.

Copyright: © 2017 | Author (s). This is an open access article under the terms of the Creative Commons Attribution-Non-Commercial - No Derivs License, which permits use and distribution in any medium, provided the original work is properly cited, the use is non-commercial and no modifications or adaptations are made.

ABSTRACT

Nest building in birds require extreme skills of engineering. nests of birds are also having huge variations in their size, shape, structure, construction material used, construction pattern, selection of site for nest, nest architecture etc. The study was carried out in the month of June 2017 to July, 2017. The Bhokar forest office nursery is big nursery containing various plants. This nursery shelters for many birds. *Prinia socialis* 13-14 cm long warblers have short rounded wings and longish graduated cream tail tipped with black subterminal spots. The tail is usually held upright and the strong legs are used for clambering about and hopping on the ground. This study was baseline for the new comers.

Key words: *Prinia socialis*, ashy prinia, zeet-zeet-zeet.

INTRODUCTION

Prinia socialis commonly known as ashy prinia or ashy wren-warbler. It is classified under Order: Passeriformes, Family: Cisticolidae. This ashy prinia is found abundant in Marathwada region and is a resident breeder. It is commonly found in urban gardens, herbs, shrubs and many farmlands in India. Its identification is easy because of its small size, color is distinctive and it made the tail upright continually. This bird is look similar to the tailor bird. https://en.wikipedia.org/wiki/Ashy_prinia.

The ashy prinia is insectivorous bird. They usually give a call in the form of song is a repetitive *tchup, tchup, tchup* or *zeet-zeet-zeet*. Another call is a nasal *tee-tee-tee*. It also makes a sound like "electric sparks" during the fluttery flight which is thought to be produced by the wings. (Rasmussen and Anderton, 2005), however (Uttangi, 1991) reported that this sound might be produced by the beak.

Few observations were made by some authors on nesting pattern of some birds in Nanded region in Maharashtra state it includes Chavan *et al.* (2016) studied characters of nesting site, ground nest and eggs of Yellow-wattled Lapwing *Vanellus malabaricus* (Aves: Charadriidae), Chavan *et al.*

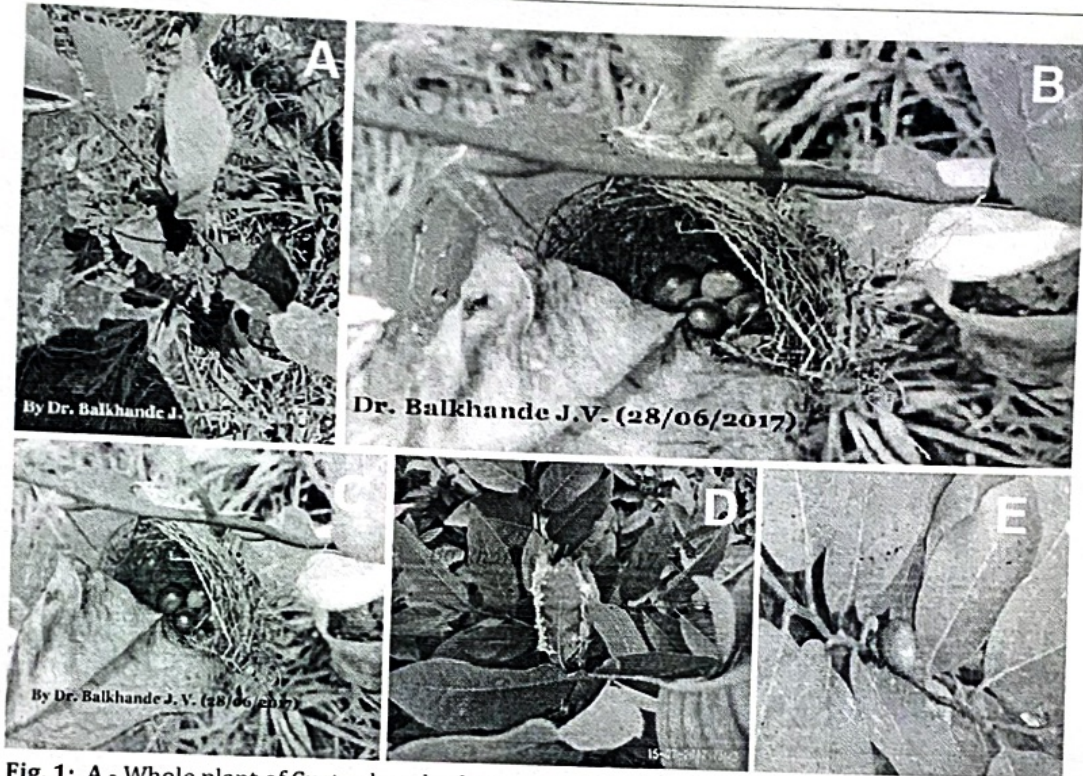


Fig. 1: A - Whole plant of Custard apple along with nest; B to C - Showing the nest with clutch of eggs (04 eggs); D- Side view of the *Prinia* nest; E. One egg disturbed by the cat.

(2016) done another study of Mud nests of wire-tailed Swallow (*Hirundo filifera*): Biomarkers of Ecological niche in Godavari river ecosystem, Nanded, Maharashtra State. Achegave et al. (2016) worked on Nesting of Baya weaver (*Ploceus philippinus*) in S. R. T. M. University, Nanded and fields along Asana river at Nanded, Maharashtra.

This study was carried out for the baseline data on nesting pattern and breeding ecology of *Prinia socialis*. No previous study was found on the Nesting pattern hence this investigation was undertaken and some photographic proof of nest, eggs, etc. reported in this study. (Fig. 1)

MATERIALS AND METHODS

Study area and Survey

The Bhokar is a taluka place in Nanded district, lies between 19.217803°N and 77.669392°E. For the present study the Nursery of the forest department is selected, this nursery has full of greenery and having variety of plants. Various birds are found as a resident of this nursery. They are attracted here because they

found nesting and breeding ground inside this nursery. This nursery contains many small and big plants; these plants are shelter of many birds. Hence our attention goes towards nesting of various birds present in the forest office.

Birds were sighted by using binoculars of 7X and 8X magnification. The nesting of prinia was photographed by using Sony Cyber shot Camera Model No. W570. Length of the nest was measured by with the help of General metal scale.

Thrice in a week the nesting site and nest were visited from the month of June to July 2017 and various details are recorded about the behavior, nest, eggs and selected area for nesting. All the standard protocols for birding and bird studies were followed (Bibby et al., 2000; Grimett et al., 2011).

RESULT AND DISCUSSION

Nest Construction material

On 16 June 2017, we found a bird's nest in the nursery of the forest office. This nest was constructed on the twig of small custard apple plant. The construction of

Table No. 1 Detailed information of *ashy prinia* nesting and breeding ecology.

Sr. No.	Detailed information of Nest	Measurement in cm
1	Total height of the Plant	64 cm
2	Total width of the nest	9 cm
3	Total height of the nest (Excluding leaf length)	8.6 cm
4	Total height of the nest(Including leaf length)	9.8 cm
5	Depth of cup	8.1 cm
6	Length form the ground	34 cm
7	Grass	-----
8	Nylon threads	-----
9	Small twigs	-----
10	Cotton swab	-----
11	Clutch Size	04
12	Color of the eggs	brick-red
13	Incubation period	12 days
14	Total number of egg hatched	04
15	Percentage of hatching	100%

nest is similar to the nest of tailor bird, means they are also construct by 'sewn'. Ali and Ripley (1997) state that the Ashy Prinia also constructs a similar nest of large leaves stitched together.

The nest constructed by the pair in second week of June 2017. Both partners are involving in the construction. The nest consisted of three large leaves stitched together with fibers and webs, and lined with fine thin fibers, and twigs, some threads are also found on the nest. This observation was made when the both partners are not present with due care. The construction of nest was a joint effort of both the Male and female partners with almost equal shares. The nest size, material used for the construction etc are described in Table No. 1

Observation of Eggs and Incubation

On 28th June 2017 we observed four eggs in nest. The size of clutch in *ashy prinia* was observed to be of four eggs, laid by the female of a somewhat pointed oval form and exceedingly glossy. They are brick-red in color some being paler, some darker. The broad end of the egg is generally darker than the remainder of the shell. The eggs were so arranged by the bird that their small edges meet in the center, making for even sitting and easier incubation by the parent.

On 6th July, 2017 we found that one egg was outside the nest, at the same time we carefully observe the site

of nest, we found a cat nearby the nest. We shifted the plant with another plants for protection.

On 10th July 20, 2017 we found that 3 chicks were hatched while remaining an egg was hatched next day i.e. on 11th July 20, 2017. We couldn't take photograph as we didn't want to disturb the family. After hatching the eggs the female remain in the nest for full time for 2 days while for those 2 days the male take all responsibility i.e. feeding, guarding etc. after 14 days of hatching, the chicks were disappeared from the nest.

Our observations of construction of nest, egg laying, incubation period and feeding behavior of this species match with the earlier observations of Karthikeyan (1993), Ramanan (1995), Ali & Ripley (1997) and Vyas & Upadhyay (2015).

CONCLUSION

The breeding, morphometric characters of nest and eggs of *Prinia socialis* were investigated first time from the selected study area. The most important thing in this study was the site of nesting. The workers in forest department take a care of this nest until the eggs hatch. This place is safe for the breeding of such a small birds.

Conflicts of interest: The authors stated that no conflicts of interest.

REFERENCES

- Achegawe RM, Chavan SP, Patil PV, Tarte SH (2016) Nesting of Baya weaver (*Ploceus philippinus*) in S. R. T. M. University, Nanded and fields along Asana river at Nanded, Maharashtra, India. *Int. J. Curr Res Aca Rev*; 4(6):51-60.
- Ali S and Ripley SD (1997) Handbook of the birds of India and Pakistan together with those of Bangladesh, Nepal, Bhutan and Sri Lanka. Warblers to redstarts. 2nd (Hardback) ed. Delhi: (Sponsored by Bombay Natural History Society.) Oxford University Press. Vol. 8 of 10 vols. Pp. i-xiv, 1-281, 8 ll.
- Bibby CJ, Burgess ND, Hill DA, Mustoe SH. Birds census techniques. London: Academic Press. 2016, 302.
- Chavan SP, Dudhmal DH, Walke DS (2016) Mud nests of wire-tailed Swallow (*Hirundo filifera*): Biomarkers of Ecological niche in Godavari river ecosystem, Nanded, Maharashtra State. *Adv. Biores.*; 7(2):170-175.
- Grimmett R, Inskipp C, Inskipp T (2011) Birds of the Indian Subcontinent. 2nd ed. New Delhi: Oxford University Press.
- Karthikeyan S (1993) Monogamy in Ashywren Warbler *Prinia socialis*: How much do sexes share domestic duties. In: Bird Conservation: Strategies for the Nineties and Beyond. Verghese, A., Sridhar, S., & Chakravarthy, A. K., (eds.). Bangalore: Ornithological Society of India: Pp. 200-201.
- Ramanan RV (1995) The nest of Ashy Wren Warbler *Prinia socialis*. *Newsletter for Birdwatchers* 35 (1): 17
- Rasmussen, P. C. & Anderton, J. (2005). *Birds of South Asia: The Ripley Guide*. Smithsonian Institution & Lynx Edicions.
- Shivaji Chavan, Rajesh Achegawe, Sharda Padghane (2016) Characters of nesting site, ground nest and eggs of Yellow-wattled Lapwing *Vanellus malabaricus* (Aves: Charadriidae). *International Journal of Zoology Studies*. 1 (06): 12-17.
- Uttangi JC (1991) Electric sparks" from Ashy Wren Warbler". *Newsletter for Birdwatchers*. 31 (7&8): 14.
- Vyas Raju and Upadhyay Kartik (2015) Notes on breeding of Ashy *Prinia socialis* in Gujarat, India. *Indian Birds* 10 (5):118-121
- https://en.wikipedia.org/wiki/Ashy_prinia.