

## OBSERVATIONS ON THE BREEDING BIOLOGY OF THE ORIENTAL MAGPIE ROBIN [COPSYCHUSSAULARIS] FROM MALAPPURAM DISTRICT, KERALA

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**Abstract :**Magpie Robin, a bird commonly seen in human habitations, breeds from March-August. The observations made during December2012-December 2015 show that male and female take part in nesting, clutch size varies from 1-3, and the average incubation period is 13 days.

**Key words :** Magpie Robin, Habitat, Clutch size, Breeding, Incubation.

### Introduction

Oriental Magpie Robin [Copsychussaularis] is a small passerine bird that is seen in tropical southern Asia from Bangladesh, India, Srilanka, Pakistan and Myanmar (Ali, 2002). They are cavity nesters in urban areas and forests and feed on insects and other invertebrates (Ali, 2002). They prefer to breed in rotten trees (Komdeur, 1996). These sexual dimorphic birds use a variety of strategies for successful completion of their breeding activities. The breeding characteristics of a species provide insights into the selection pressures that individuals of that species have faced over time. Most of the birds invest a lot of energy to find suitable mate, safe nesting site and to maintain pairing throughout breeding period. Nest selection, nest modification, nest guarding, successful incubation, feeding young ones and parental care even after successful dispersal of fledglings are important components of breeding activity. A couple of studies on breeding biology of Magpie Robin are done in India (Bhatt, et al., 2014; Sreekar, 2010). Study of the species is not known from Kerala and hence this study was undertaken.

### Materials and Methods

Observations on the breeding behavior of Magpie Robins (N=15) were carried out from January 2013-December 2015 in their natural habitats at different locations of Thiruvallipanchayath, Malappuram district in Kerala. Field observations were done twice in a week from 6.30 to 9.00 AM and 4.00 to 6.30 PM throughout the study period, with the help of field binoculars (7x50).

### Result and Discussions

#### Nest and Nest site selection

Magpie Robin is a secondary cavity nesting species. The nests are built in cavities in trees such as coconut and areca nut palms. Rarely it is also seen building nests on ventilators (N=2) and in the bamboo cloves (N=1).

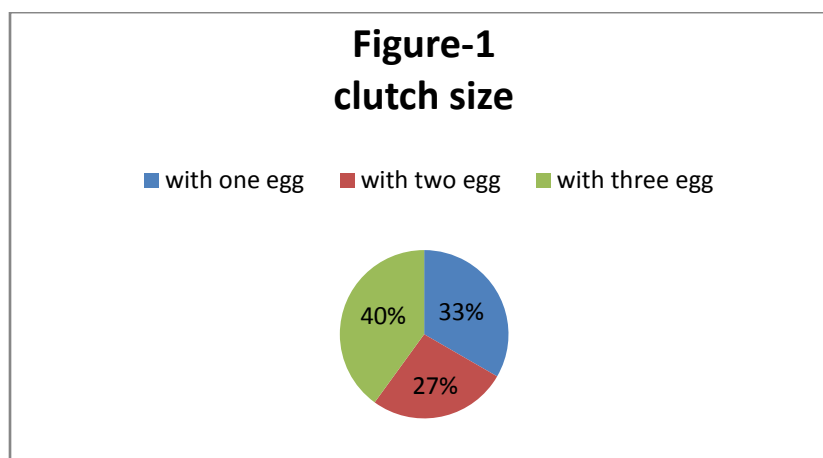
It generally nests in highly secured places not easily detectable by others. In one instance Magpie Robin was found attempting to build a nest on a cavity of areca nut tree, which it had to desert later because of a common myna that tried to occupy the same. Both male and female take part in nest site selection. The female collects materials and builds the nest. Rarely the male assists the female in nest building. The nest is built of a variety of materials such as

leaflets of gooseberry, small twigs, coconut fibers, and smooth leaves of other plants. Nest building takes place 3-4 days (N=5). The same is reported in the studies conducted by Aguon&Conant, 1994; Oliarnyk& Roberson, 1996; Kumar, 2010.

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### Clutch size

Clutch size varied from 1-3 and the clutches of three (40%) were the most common, followed by that of one (33%) and two (27%, Figure-1). Ali and Ripley (2001) reported the clutch size varying from 3 to 6, with clutches of three being only occasional. The eggs are pale green in colour. The eggs hatched synchronously.



### Incubation

Incubation period is considered to be the time between laying of the last egg in the clutch and hatching of the last egg. Females incubate the egg, while males mostly remained vigilant in the vicinity of the nest. Average incubation period is 13 days (N=15). However, Bhatt, et al., (2014) reports an average of 13.7 days in Uttarkhand, India.

### Nestlings

The eggs hatched out on the same day in almost all the cases. The egg shell is taken out and discarded by female after the hatching. The newly hatched black-brown nestlings were with closed eyes and naked body. Nestlings respond to the sound from the parent bird as it comes for feeding, wide open the mouth and expose a bright yellow patch in their buccal cavity producing begging calls, as earlier

reported by Kumar & Bhatt (2001). The female attends the hatchlings for about 2-3 days. Afterwards both the parents are found feeding the nestlings. The hatchlings takes 14-19 days to become fledglings [N=15], similar to the observations made Kumar & Bhatt (2001) in Uttarkhand area.

### Food of nestlings

The food of nestling chiefly consists of calotes, grillids, gryllotalpids, moths etc. The adults feed the nestlings with the soft parts of the prey items, discarding the parts that are difficult to digest.

### Acknowledgement

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**References**

1. Aguon, C.F., & Conant, S. (1994). *Breeding Biology of the white-rumped Shama on Oahu Hawaii*. *Wilson Bulletin*, 106:311-328.
2. Ali, S., & Riply, S. D. (1973). *Hand book of Birds of India and Pakistan, vol -9 Robins to Wagtails*, Oxford University press, Bombay.
3. Ali, S., & Riply, S. D. (2001). *Hand book of Birds of India and Pakistan, vol -9 Robins to Wagtails*, Oxford University press, Bombay.
4. Ali, S & Riply S D. (2002). *Hand book of Birds of India and Pakistan, vol -9 Robins to Wagtails*, Oxford University press, Bombay.
5. Bhatt, D., Kumar, A., Singh, Y., & Pagne, R. B. (2000). *Terrestrial songs and calls of the Oriental Magpie Robin Copsychus saularis*. *Current science*, 78:722-728.
6. Bhatt, D., Sethi, V. K., Kumar, A & Sing, A. (2014). *Some notes on the breeding behavior of the oriental Magpie Robin (Copsychus saularis) from Uttarakhand, India*. *Journal of Sustainability Science and Management*. volume 9 Number 1 :112-119
7. Komdeur, J. (1996). *Breeding of the Seychelles magpie robin Copsychus sechellarum and implications for its conservation*. *Ibis*, 138, 485-498.
8. Kumar, A. (2003). *Acoustic communication in birds: Differences in songs and calls, their production and biological significance*. *Resonance*, 8, 44-55
9. Kumar, A. (2010). *Breeding Biology of Pied Bush Chat Saxicolapex with Reference to the Contextual Analysis of its Acoustic Signals*, PhD. Dissertation. Gurukula Kangri University, Haridwar, India.
10. Sreekar, R. (2010). *A Study on the habits of Oriental Magpie-Robin Copsychus saularis*. *Indian Birds*, Vol. 5 No. 5.
11. Oliarnyk, C J., & Robertson, R. J. (1996). *Breeding Behaviour and Reproductive Success of Cerulean Warblers in Southern Ontario*. *Wilson Bulletin*, 108:673-684.

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