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Research Paper

NESTING BEHAVIOUR OF PURPLE SUNBIRD, *NECTARINIA ASIATICA*

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Abstract

A sunbird was observed opportunistically collecting material for construction of the nest. The observation period was from 16th March to 6th April 2010. The material used for construction was soft grass, fibers, small leaves, bark, cobweb, pieces of thermocole, caterpillar droppings, bits of paper, strings and other rubbish, plastic fibers. Internal diameter and depth were same. Construction of nest and incubation of eggs by female only but post incubation events like feeding and defending the hatchling were carried out by both of the parents. Best sanitary practice is noticed.

Key words: Nesting, *Nectarinia asiatica*, sanitation.

INTRODUCTION

Purple Sunbird, *Nectarinia asiatica* is mostly confined to hot regions of the world. These birds live from Pakistan through India to Southeast Asia. This is the most common sunbird species in India. In temperate areas, where flowers are seasonal, the number of species is less and all of them are migratory birds (1). It is among the species in the group that appreciates insects the most. Purple sunbirds forage for nectar, insects, and related creatures in forests and often visit gardens to seek out nectar. The call can be rendered as a humming "zit zit" and "swee swee." This Asian Sunbird has purple tonality that gives him its name.

Male Purple Sunbird have two different plumages, breeding or courting being metallic bluish black and an eclipse plumage rather like the female, but with yellower under parts with a dark median line down the centre of throat and breast (2). In full colour, male have glossy purple on the head and back. Out of the breeding season, the male has a blue shade on the chest area and is mainly brownish, darker on the back and lighter on the belly. Efforts have been made by Snow (3) and Crome (4) to evaluate the food preferences.

This work seeks to provide an empirical framework for the study of breeding and nesting of Purple Sunbird along with sanitation.

Field work was carried out in Ganesh Nagar of Washim city, one of the district place in Maharashtra and is situated in the North Eastern part of the state abutting Madhyapradesh and lies between North latitude 19° 61' and 21° 61' and East longitude 76° 07' and 77° 14' and falls in parts of survey of India degree sheets 55D, 55H, 56A and 56E.



On 16th March 2010, nest of Purple Sunbird, *Nectarinia asiatica*, was observed which appeared to be almost complete. It was placed on Pigeon Pea tree, on a twig within a couple of meters from the ground. Nest was an oblong purse of soft grass and fibres, small leaves, bark cobweb etc., untidily dropped on the outside with pieces of bark, caterpillar droppings, bits of paper, string and other rubbish. Nest had porch like projection over the entrance hole. A special peculiarity of the use of modern technological material like polythene fibres and pieces of thermocol were also observed in the nest construction. This might be only due to its light weight and easy availability. From this we may interpret that like human beings, the other animals like birds also accepted the modern technology.

Table 1: Details about Nesting Stages.

Nesting Stage:	Date
Completion of the nest:	16-03-2010
Eggs laying:	25-03-2010
Eggs hatching:	02-04-2010
First Egg:	At 9:00 AM
Second Egg:	At 3:00 PM

No little participation of male was observed in the construction of the nest. Female alone carried out construction of the nest.



Fig.2: Female bird incubating the eggs



Fig.3: Male bird guarding the nest



Fig.4: Straight up mouths of hatchlings



Fig.5: Male bird feeding the young ones

On 25th March 2010, two eggs were laid by females in the nest which were greyish white with chocolate streaks. After the completion of the nest, male was found in the nearby area, but not in the nest. Like construction of the nest, incubation was completely carried out by female only and male was not observed even in nearby area during incubation period. Eggs were hatched on 2nd April 2010, first one at 9:00 AM and second at 3:00 PM on same day. On that day both male and female were observed in the nest alternatively. On the first day of hatching, hatchlings were unable to straight up their gapping mouth for feeding but from the second day, they could easily straight up their mouth. The nestlings were fed by both the parents. Male and female were observed in tending the young ones. In the present investigation, no faecal matter and other dropping were observed. This suggests the best sanitary practice by birds.

Table 2: Dimension and material used for the construction of nest.

Dimension of the Nest (Internal)	Material Used
Diameter: 5.5 cm Depth: 5.5 cm	Soft grass, fibres, small leaves, bark , cobweb, pieces of thermacol, caterpillar droppings , bits of paper, strings and other rubbish, plastic c fibres.

DISCUSSION

Several Sunbirds species breed in winter when most flowers are out but when it is colder (6). The Purple Sunbird might nest in this locality due to the presence of large number flowering plants like China rose. This ornamental plant is available for about eight months of the year (7). The Sunbird in our study area breeds from January to March. The materials used for nest construction was easily available. Use of polythene fibre and pieces of thermocol might be due to its light weight and easy availability, also use of cobweb to envelope the nest to is enjoying additional cryptic value and concealment.

In the present investigation, the nest was constructed in human locality and is just a couple of meters up from the ground. These findings are in contrast with findings of Raval (8). The selection of long, slender bough, which is swaying in the winds to build a nest, might be due to keep eggs stealers from the venturing close to the nest. The nest entrance is kept in the North this could avoid the direct radiation of the sun. This observation is supported by Cheke *et al* (9). The incubation has taken exactly nine days where as in another species of purple-rumped sunbird, *Nectarinia zeylonica* it is extended up to fourteen to fifteen days (10). The female left the nest for feeding and promptly returned to the nest. Although male was not found at the period of nesting as well as incubation but remained within an area to guard the nestlings. This appearance of the male during both these periods is unknown.

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