Nesting behavior of Purple Sunbird (Cinnyris asiaticus)

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Introduction

Purple Sunbird (*Cinnyris asiaticus*) is a widespread species of Sunbird in the Indian Subcontinent. They are sexually dimorphic birds. The males have an iridescent purple body with a small bill, blackish-brown iris, black belly, red chest band, and black legs. The male also has a short-term "Eclipse plumage" where most of the iridescence on the wings and back is replaced by yellow and gray feathers. The females have the same characteristics as males, except that they are entirely yellow or plain gray colored with no iridescence whatsoever (Grimmett et al., 2011). They are very protective parents when it comes to nesting, both parents come together to fight off any intruder who comes near the nest (example Indian Palm-Squirrel or Purple-rumped Sunbird).

Observations

The Sunbird nest was observed in Ahmedabad, Gujarat, India. The nest was in front of my house in an urban environment. It was observed from the last week of February till the 20th March, 2021. The nest was found with eggs in February end and at that point in time, the construction of the nest was completed. The Female used to incubate the eggs for hours while the male made hundreds of trips during the day to and from the nest. The male carried a few nest materials and food.

In a week or so after incubation, the two chicks hatched. Their sizes were quite small at that time, so small that they couldn't even be seen from the opening. Both the parents took turns feeding the chicks in a time gap of 10 minutes or so. The chicks were observed to get digested food from their parents.

When the chicks were two weeks old, they started having a red mouth with a yellow lining which was mostly open for food, the neck was still red as the feathering hadn't developed, and the eyes still weren't open at that time. The parents gave a short and sharp "cheert" call first and then arrived at the nest with food. During this time, the female used to take the fecal matter away from the nest, it was white. The Female used to sit in the nest overnight to protect the chicks while the male resting on a nearby tree. In the next few days (March 11 and 12), the chicks opened their eyes and started to develop yellow feathers on their body. They could pop their head out of the nest and do some movements with the bill (flicking the tongue and opening bills). As they grew, the adults arrived in the nest less frequently to feed than before.

On March 13, approximately two weeks after hatching, the chicks started vocalizing. Their body was becoming more and more active as they frequently flapped their wings and started using their claws too. The molting was going on smoothly and

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their bellies could now be seen in prominent yellow colors.

March 14 was the day when the nest was changed a bit as the original nest had fallen on the ground due to unknown reasons. The same nest was sewn from the base after 2-3 hours of falling. It was fixed on the same tree. The male used to vocalize a lot before feeding the female, while the female fed the chicks more than the male. The females took more time (20-25 seconds) to feed the chicks, while the male averaged a lesser time (10 seconds).

On days from March 15 to 17, the feeding process slowed even more as chicks grew. The fecal sac was still taken out of the nest by the female. The male wasn't observed emptying the fecal sac from the nest. The chicks can vocalize more prominently now while their bodies have almost completely feathered with olive-yellow feathers. The approximate size of the chicks is 5 cm after almost 2.5 to 3 weeks after hatching. They are getting stronger now and with each visit by their parents, they can sway the nest back and forth with their excited wing and body movements.

From March 17 till their last day (March 20), the growth process reduced as their final days in the nest were closing in. Their vocalizations became very sharp and frequent. The parents now wanted the chicks to be independent so they limited their visiting time by a lot. By March 19, the chicks had already started to leave the nest; by the very next day, the chicks and parents had abandoned the nest completely. In the end, the female cleaned the nest up a little bit before leaving.

Food - The main diet consisted of digested food until the very last 7-8 days of leaving the nest. Usually, the male carried larger-sized food than the female. The undigested food provided to the chicks consisted of arachnid-spiders, an unidentified green insect (may be a queen ant), a white worm/ maggot, and a brown insect.

References

Grimmett, R., Inskipp, C. & Inskipp, T. 2011. *Birds of the Indian Subcontinent*. 2nd ed. London: Oxford University Press & Christopher Helm.