

Habitat codes:

| | |
|----|--|
| Tk | Teak forest |
| Ms | Miscellaneous forest (teak mixed, <i>Anogeissus-Boswellia</i> stand, hill forest, and <i>zizyphus</i> stand) |
| Bm | Bamboo dominant forest |
| Cc | <i>Cleistanthus collinus</i> woodland |
| Gr | Grassland – Savanna |
| Os | Open scrub jungle (dominated by <i>Lantana</i>) |
| Cs | Countryside / Cultivation |
| Wl | Wetlands (river, streams, ponds, and reservoir) |

Frequency codes:

| | |
|---|------------|
| C | Common |
| O | Occasional |
| U | Uncommon |
| X | Rare |

Status codes:

| | |
|----|---------------------|
| R | Resident |
| W | Winter visitor |
| S | Summer visitor |
| LM | Local migrant |
| V | Vagrant / Straggler |

A glimpse of the breeding biology of the Purple-rumped Sunbird *Nectarinia zeylonica* (Linnaeus, 1766)

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Presented here are the data (Table 1) on 14 pairs of eggs: their dates / times of deposition (Egg-laying), incubation period and, the brooding and the fledging of the nestlings of the Purple-rumped Sunbird *Nectarinia zeylonica* (Linnaeus, 1766). The upright arrows in the table stand for the time at which eggs were noticed in the nests, their time of exact laying was not known. The timings without the arrows were almost exact in that they were arrived at from the behaviour of the female and her position in the nest. When she was about to eject the eggs she stood with her breast thrust up and forward, blocking the entrance hole, the head lifted and rocking forward and backward. The egg ejected, she sat immediately on it, adjusting it, indicative of the egg being in the nest.

Egg pairs nine and ten were of a single pair of birds. This pair had the misfortune of having to make three nests for two clutches of eggs, all in a line in the *Prosopis* sp., fence by my window. Their first nest, initiated on 9th November 1990 and completed on the 15th was abandoned, the reason being I presume my agitating the nest-twig to know if the female was occupying it for the night. The same pair, continuing in the fence, built another nest 3m away and, completing it on 24th November 1990, laid two eggs, one each on 27th and 28th, brooding the young successfully to fledging stage. The nestlings fledging on 28th December 1990, the parents started another nest on 21st January 1991 about 30cm away from the second nest, initiated a clutch on 4th February 1991 to carry it through to fledging on 6th March 1991.

The following conclusions are made from the above data: The species breeds throughout the year with a break of two months, May-June. The gap between the second egg of a clutch and the initiation of the following clutch, if any, is 68 days. The period between the second egg of a clutch and the starting of the next nest is 54 days; the gap between the

fledging of one brood of young and nest-site selection for the next nest is 24 days; that between one fledging and the laying of the first egg of the succeeding clutch is 38 days. How many clutches a pair of birds brings forth per season is not known. A striking behaviour is the making of a separate nest for every fresh clutch a pair lays. This may imply that the species, spending much energy on nest construction, is a poor breeder. But then, this is compensated for by the fact of the species being a year-round breeder.

The recent information on the bird's behaviour (Kumar 2003) throws up a few points of interest. The eggs of the birds of Palayamkottai and Thiruchirappalli are a deviant in being plain grey without markings and the greenish tinge. That the bird laid another clutch immediately on the loss of a clutch in the same nest is not corroborated by my data. On the contrary, as per the data on pairs nine and ten, the bird has the potency to delay the deposition of the egg in case of nest / clutch catastrophe. In this light, the Hyderabad bird had it seems, only delayed the laying, by a day or so, and the egg she did lay was the 'exceptional' third egg (Ali and Ripley 1987) of the clutch that was to have been. The plausibility of the bird delaying by a couple of days, the initiation of the clutch under normal situation, it appears, is that the eggs do not enter the oviduct till the nest is completed. The completed nest is the stimulant for ovulation to take place. Hence she waits, of necessity, for that number of days either in the nest or outside it during the nights. And the waiting may or may not be to assess the security situation only, as I have argued elsewhere (Wesley 1996). It may serve the twin purpose¹.

¹ **Editors' Note:** The reason why the egg was laid quickly in Hyderabad and not so at Tiruchirappalli cannot be fully explained just by the reasons given by Mr. Wesley. There are several other things that need to be considered. For instance, the nest, which Mr. Wesley had observed and found a larger 'gap', than reported by Mr. Ashok Kumar, was disturbed by the former, which had scared the bird. Whereas at the Hyderabad nest, the bird had the eggs, damaged

References

Ali, Salim and S. Dillon Ripley, 1987. *Compact handbook of birds of India and Pakistan*. Delhi: Oxford University Press.

perhaps but the bird had not been scared off and so it did not consider rebuilding the nest. Resource availability, conditions ideal for nesting, etc., too may decide whether the bird could afford building a new nest. Also comparing the gaps between one successful brood and the next, with a replacement clutch, may not be correct as the bird that has raised a successful brood may need time to recuperate and also may still have to spend energy and time on the fledglings till they are independent and capable of fending for themselves.

Kumar, Ashok, 2003. Breeding behaviour of *Nectarinia zeylonica*. *Newsletter for Birdwatchers* 43 (6): 80-82.

Wesley, H. D., 1991. Parental care in the Purple-rumped Sunbird. *Newsletter for Birdwatchers* 31 (3-4): 2-3.

Wesley, H. D., 1996. Breeding behaviour of *Nectarinia zeylonica* at two latitudes in the Indian peninsula. *Newsletter for Birdwatchers* 36 (2): 28-29.

Table 1.

Nectarinia zeylonica: Data on egg laying, incubation and fledging from south* Tamil Nadu

| Clutch No. | Egg No. | Laying: Date/Time | Hatching: Date/Time | Incubation period (days) | Fledging date: Nestling period (days) |
|------------|---------|--|--|--------------------------|---------------------------------------|
| 1 | 1 2 | 27-12-1964: 07:00 hours 28-12-1964: 08:05 hours | 13-1-1965: 16:15 hours ↑ | 16 | 28-1-1965 (15) |
| 2 | 1 2 | 10-2-1965: 08:40 hours ↑ 11-2-1965: 11:40 hours ↑ | 26-2-1965: 06:50 hours | 15 | 13-3-1965 (15) |
| 3 | 1 2 | 25-8-1967: 06:55 hours 26-8-1967: 07:15 hours | 9-9-1967: 10:00 hours 10:50 hours | 15 | 24-9-1967 (15) |
| 4 | 1 2 | 11-3-1969: 07:20 hours 12-3-1969: 07:35 hours | 27-3-1969: 07:15 hours 08:05 hours | 15 | 11-4-1969 (15) |
| 5 | 1 2 | 6-4-1986: 17:30 hours ↑ (Both eggs) | 14-4-1986: 06:25 hours 15-4-1986: 06:20 hours | ? | 30-4-1986 (15) |
| 6 | 1 2 | 23-11-1986: 06:35 hours 24-11-1986: 06:55 hours | 9-12-1986: 06:48 hours 13:35 hours ↑ | 15 | 23-12-1986 (14) |
| 7 | 1 2 | 21-7-1988: 06:25 hours 22-7-1988: 06:35 hours | 6-8-1988: 06:34 hours 07:10 hours | 15 | 21-8-1988 (15) |
| 8 | 1 2 | 2-4-1990: 06:30 hours 3-4-1990: 06:50 hours | 18-4-1990: 06:15 hours | 15 | ? |
| 9 | 1 2 | 27-11-1990: 10:30 hours ↑ 28-11-1990: 07:30 hours | 12-12-1990: 09:55 hours 13-12-1990: 08:00 hours | 15 | 28-12-1990 (15) |
| 10 | 1 2 | 4-2-1991: 12:45 hours ↑ 5-2-1991: 13:50 hours ↑ | 19-2-1991: 17:30 hours ↑ 20-2-1991: 06:30 hours | 15 | 6-3-1991 (14) |
| 11 | 1 2 | 14-8-1991: 09:00 hours 15-8-1991: 07:30 hours | 29-8-1991: 13:05 hours 30-8-1991: 06:30 hours | 15 | 15-9-1991 (16) |
| 12 | 1 2 | 22-9-1992: 13:20 hours 23-9-1992: 08:10 hours | 7-10-1992: 17:10 hours ↑ Two nestlings | 14 | 23-10-1992 (16) |
| 13 | 1 2 | 21-12-1992: 06:30 hours 22-12-1992: 06:20 hours | 6-1-1993: 07:30 hours | 15 | 22-1-1993 (16) |
| 14 | 1 2 | 17-1-1994: 07:10 hours 18-1-1994: 07:30 hours | 1-2-1994: 06:35 hours : 13:30 hours ↑ | 14 | 18-2-1994 (17) |

↑ = Time of recording.

* = 1964-1969: Data from Palayamkottai. 1986-1994: Data from Tiruchirappalli.