

Biodiversity Record: Nest construction and breeding of ornate sunbird, *Cinnyris ornatus*

Michael R. Crossland^{1*} & Sheau Fong Chan

¹School of Natural Sciences, Macquarie University, Sydney, NSW 2109, Australia

Email: mcrossland@hotmail.com (*corresponding author)

Recommended citation. Crossland MR & Chan SF (2026) Biodiversity Record: Nest construction and breeding of ornate sunbird, *Cinnyris ornatus*. Nature in Singapore, 19: e2026041. DOI: 10.26107/NIS-2026-0041

Subjects: Ornate sunbird, *Cinnyris ornatus* (Aves: Passeriformes: Nectariniidae).

Subjects identified by: Michael Richard Crossland and Sheau Fong Chan.

Location, date and time: Singapore Island, Ang Mo Kio housing estate; 6 April 2024 to 24 May 2025 (over 13 months); around 0700–1930 hrs each day.

Habitat: Urban. Outside corridor on the 11th floor of a concrete highrise residential building.

Observers: Michael Richard Crossland and Sheau Fong Chan.

Observations: This is a chronicle of the nesting of a pair of ornate sunbirds at a corridor over a 13-month period.

A female ornate sunbird constructed a nest in a hanging garden plant in the corridor (Fig. 1). Construction started on 6 April 2024. The outer nest was completed on 12 April 2024, at which time the female began lining the inner nest with small feathers and plant material (Fig. 2). Nest construction was completed on 16 April 2024. The outer nest was comprised of plant material, raffia strands, ribbon thread, jute string, nylon rope fibre, bubble wrap and strips of soft plastic. The oval-shaped nest was 26 cm length × 18 cm width, with the entrance hole 3.5 cm length × 2.5 cm width located 11 cm below the top of the nest. A hanging strand of vegetation extended a further 18 cm below the main nest. The male played no part in nest construction. We monitored the nest by direct observation (380 days) and occasionally a home security camera (Tapo C211; 34 days).



Fig. 1. View of nest (indicated by arrow) among potted plants along the corridor. Fig. 2. Female ornate sunbird at nest. (Photographs by: Michael Richard Crossland and Sheau Fong Chan).

A pair of ornate sunbirds used this nest for breeding on five occasions. On each occasion, we looked inside the nest with a torch but could not always see all eggs due to the depth of the nest. However, we could hear when chicks hatched and so could determine hatching date, nestling period (number of days from hatching to fledging) and number of chicks to successfully fledge. These breeding events are summarised as follows:

Brood 1 — Nesting commenced 18 April 2024; date of hatching 2 May 2024; date of fledging 17 May 2024; nestling period 15 days; 2 chicks fledged.

Brood 2 — Nesting commenced 6 June 2024; no chicks seen or heard hatching; no chicks fledged.

Brood 3 — Nesting commenced 2 July 2024; no chicks seen or heard hatching; no chicks fledged.

Brood 4 — Nesting commenced 9 February 2025; date of hatching 20 February 2025; date of fledging 10 March 2025; nestling period 18 days; 1 chick fledged.

Brood 5 — Nesting commenced 3 April 2025; date of hatching 16 April 2025; date of fledging 2 May 2025; nestling period 16 days; 2 chicks fledged.

Nest renovations between broods were done predominantly by the female. We observed 35 days when such renovations occurred, with the female making renovations on all 35 days while the male made renovations on only one day (3% of days). Feeding of chicks was also done predominantly by the female. Of the 53 days we observed adult birds feeding chicks, the female provided food on all 53 days while the male fed chicks on 16 days (ratio of days feeding chicks = 3.3:1). We only ever saw the female remove faecal sacs of chicks from the nest. Detailed photographs and video of nesting activity are available on Figshare (<https://doi.org/10.6084/m9.figshare.30102070>).

During the night of 24 May 2025, the lower half of the nest detached and fell to the ground below. As of 4 March 2026, sunbirds have not appeared to reconstruct the original nest or build a new nest in the vicinity of the old nest remnants.

We searched the outdoor corridors of all 11 floors of the apartment block on six occasions from 27 April 2024 to 10 February 2026 but found no other sunbird nests.

Remarks: Incidental observations of nesting and breeding of ornate sunbirds in Singapore are common. However, complete photographic accounts of nest construction from the moment of inception to completion, and daily observations of use of the same nest over a period of more than a year for multiple breeding events, are seemingly rare. Our observations were fortuitous because the sunbirds nested directly outside our front door, and we happened to observe the precise moment when nest construction commenced.

Given the relatively hidden location of the nest and the generation time of this species, we suspect it was the original pair of adult sunbirds that used the nest on all five breeding occasions. The female played the dominant role in breeding activity, doing all nest construction, most nest renovation between broods, most feeding of chicks and all removal of chick faecal sacs. This pattern of female bias in parental investment is common in sunbird species (e.g., Molokwu et al., 2006; Pande & Sante, 2008; Adeyanju et al., 2013; Mishra, 2019; Kumar et al., 2020). The long interval between commencement of nesting for broods 3 and 4 (222 days) suggests a seasonal breeding pattern although Low (2019) reported the species nests throughout the year in Singapore. The successful fledging of five chicks in the outside corridor where people walked within 1 m of the nest multiple times throughout each day and evening highlights the high tolerance of this species to coexist with humans.

Acknowledgement: We are very grateful to Sarah Chen for assisting with our observations.

Literature cited:

- Adeyanju TA, Adeyanju TE & Omotoriogun TC (2013) Extended breeding in a nest of splendid sunbird *Cinnyris coccinigastrus* on residential premises. *Malimbus*, 35: 131–138.
- Clements JF, Rasmussen PC, Schulenberg TS, Iliff MJ, Fredericks TA, Gerbracht JA, Lepage D, Spencer A, Billerman SM, Sullivan BL & Wood CL (2023) The eBird/Clements checklist of Birds of the World: v2024. <https://www.birds.cornell.edu/clementschecklist/introduction/updateindex/october-2023/updates-and-corrections/> (Accessed 9 August 2025).
- Kumar C, Thind SK & Kaleka AS (2020) Breeding behaviour of the purple sunbird, *Cinnyris asiaticus* (Latham, 1790) in semiurban area of Punjab. *Records of the Zoological Survey of India*, 120: 323–340.
- Low E (2019) Olive-backed sunbird. <https://www.nlb.gov.sg/main/article-detail?cmsuuiid=472a572a-d8df-4723-859f-4a2c98de7be0> (Accessed 22 July 2025).
- Mishra S (2019) Nesting and parental care in *Cinnyris jugularis*. *International Journal of Engineering Applied Sciences and Technology*, 4: 119–122.
- Molokwu M, Ottosson U & Azi J (2006) Observations at a scarlet-chested sunbird *Chalcomitra senegalensis* nest. *Malimbus*, 28: 45–46.
- Pande S & Sant N (2008) Olive-backed sunbird *Cinnyris jugularis* nesting from electric wires in Great Nicobar Island. *Indian Birds*, 4: 116–117.