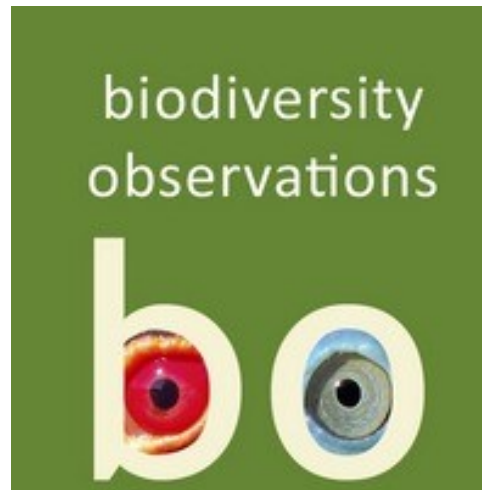


# Note on the nest-building behaviour, socio-negative interactions and courtship display of the Lesser Antillean Bullfinch *Loxigilla noctis sclateri* in a suburban area of St Lucia

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## Ornithology

### Note on the nest-building behaviour, socio-negative interactions and courtship display of the Lesser Antillean Bullfinch *Loxigilla noctis sclateri* in a suburban area of St Lucia

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#### Abstract

We provide details of the nest-building behaviour of the Lesser Antillean Bullfinch, including observational notes on nest materials and courtship elements, and also on socio-negative interactions. The information is based on field observations of a breeding pair in a suburban area in St Lucia.

#### Introduction

The Lesser Antillean Bullfinch *Loxigilla noctis* (Figure 1) is a passerine that occurs on several islands within the Lesser Antilles, including Dominica, St Vincent and the Grenadines, St Lucia, Martinique, Guadeloupe and several smaller islands (Bond 1999; Rising & Jaramillo

2020). There are eight subspecies of the Lesser Antillean Bullfinch; the subspecies *sclateri* occurs on St Lucia. The species inhabits tropical evergreen forests, gardens, second growth and woodland, rarely descending to suburban or dry areas (Bond 1999; Rising & Jaramillo 2020).

The Lesser Antillean Bullfinch breeds on the larger Lesser Antillean islands and was observed to breed on St Croix and St Virgin Islands (Rising & Jaramillo 2020). Despite being considered locally common, no systematic research has been conducted on the natural history of



**Figure 1:** Male Lesser Antillean Bullfinch. Photo by [Dick Daniels](#) in [Wikimedia Commons](#). [CC BY-SA 3.0](#)

this species, with data on the breeding behaviour remaining sparse. This paper provides field notes on the nest-building behaviour and courtship display observed in a suburban area in western part of St Lucia.

## Observations

A pair of Lesser Antillean Bullfinches was frequently observed in the vicinity of the hotel area near Castries (14° 02' 03" N, 60° 58' 25" W), and located c. 15 m from the coast. The study site was close to a fragmented forest patch and c. 1 km away from a human settlement. The Lesser Antillean Bullfinch pair visited the hotel gardens frequently (for potential food resources) and were accustomed to human presence, allowing us to observe the behaviour from close vicinity.

On 10 May 2019, we observed the male, on his own, investigating several potential nesting sites within the area of the hotel gardens. The female visited a potentially identified nesting site only after auditory contact with the male. On the following day, we observed the pair carrying nest material and inspecting a gap of a balconette located c. 3.1 m above the ground (Figure 2). Both male and female participated in the search flights and initial phase of the nest construction. On the fifth day, we observed the pair for c. 30 min. Both the male and female brought nest material and inclined it into the raw material of the nest (Figure 3). During the observation period, the male spent shorter time periods inside the nest (mean = 14.2 s; range 3.9–51.8 s;  $n = 16$ ) than the female (mean = 54.5 s; range 26.0–78.0;  $n = 13$ ). Search flights were short in duration (between 2–4 minutes), indicating that nest material was collected close to the nest site (probably in the hotel garden or the forest fragment). Grass stems, leaves, small twigs and plant fibres were identified as nest material. The majority of nest material was collected and incorporated into the incomplete nest during the fifth and sixth days. The nest was presumably completed after eight days (19 May 2019), because no further nest construction was noticed. After revisiting the site on the following day, the nest site was abandoned and the nest structure deformed with nest material dispersed all over the balconette floor, indicating external mechanical impact on the nest. We could not find any evidence of nest predation



**Figure 2:** Nest site of the Lesser Antillean Bullfinch.  
Photo: Vladislav Marcuk

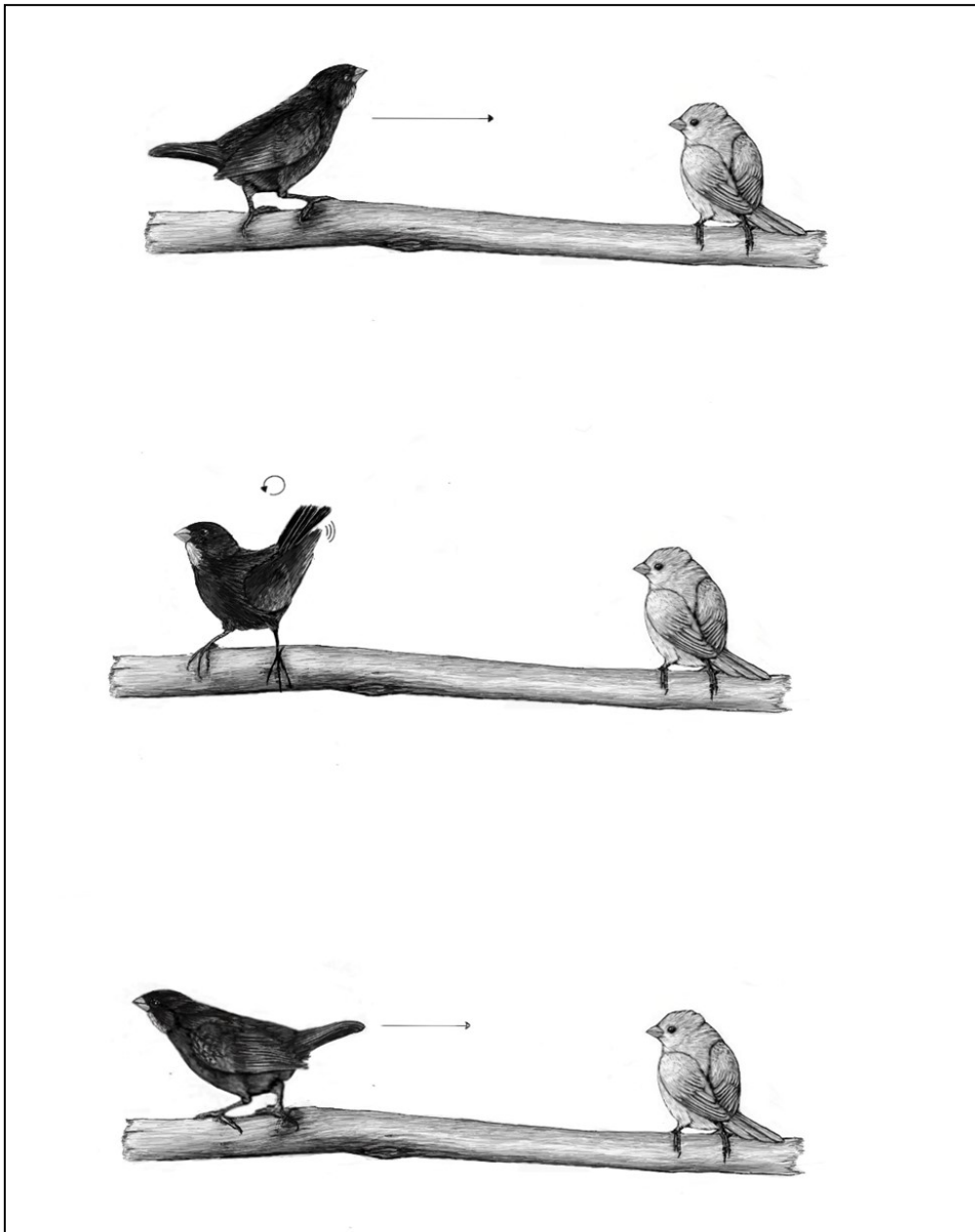
(e.g. broken egg fragments). We observed the same pair revisiting the nesting site on several occasions later this day.

Elements of the courtship display were observed on three occasions (12–14 May 2019) during the nest-building process, with the male starting to perform display elements perching near the female (Figure 4). The courtship display was characterized by irregular vertical hops accompanied by wing-flicking. The head of the male was lifted up, exposing the red throat patch, which was presented towards the female. The female habitually remained stationary during the elements of the display. No copulations were observed – this requires further field observations.



**Figure 3:** Photographic records of nest material utilized by the Lesser Bullfinch: (*upper left*) female with flower bud of exotic unid. Bromelid; (*upper right*) male with a stem; (*below left*) male with leaf fragment; (*below right*) male with twig. Photos: Vladislav Marcuk





**Figure 4:** Illustration of the courtship elements of the Lesser Antillean Bullfinch. Illustration by Vladislav Marcuk.

On six occasions, territorial defence was observed, where the pair chased conspecifics ( $n = 3$ ), Bananaquits *Coereba flaveola* ( $n = 2$ ), and a Carib Grackle *Quiscalus lugubris* that inspected the nest site. The presence of Carib Grackle close to the nest site was accompanied by a series of alarm calls emitted by the pair. The pair tolerated other smaller passerines on the same site; a Bananaquit pair was nesting about 8 m away from the chosen nest site in a palm tree .

## Discussion

According to previously published information about the breeding biology, the clutch size of the species consists of between 2–4 eggs, with a modal clutch of three (Bond 1999, Benito-Espinal & Hautcastel 2003, Rising & Jaramillo 2020). The eggs are bluish-white, speckled with reddish blotches and averaging 19.3×14.2 mm in size ( $n = 14$ ) (Benito-Espinal & Hautcastel 2003). The clutch is completed over 3–4 days, indicating a laying interval of 24 hours (Benito-Espinal & Hautcastel 2003). Incubation is performed solely by the female and lasts 13–14 days. Both male and female participate in the chick-rearing and provide the chicks with food (mainly with small fruits, insects and seeds). The chicks leave the nest after a nestling period of 16 days (Benito-Espinal & Hautcastel 2003). This note supplements this information about the breeding biology of the Lesser Antillean Bullfinch by providing observation relating to nest building and courtship.

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