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SHORT NOTE

OBSERVATIONS ON THE NESTING OF THE GRAY-HEADED DOVE (*LEPTOTILA PLUMBEICEPS*) IN A SHADE-GROWN COFFEE PLANTATION IN VERACRUZ, MEXICO

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Abstract · The Gray-headed Dove (*Leptotila plumbeiceps*) is distributed from northeastern Mexico to eastern Colombia, but its breeding biology is virtually unknown. In May 2020, we found a pair of these doves nesting in a shade-grown coffee plantation in central-western Veracruz, Mexico. The nest was a circular platform (20 cm in diameter) made of sticks, leaves, and artificial materials. Although this dove showed plasticity by incorporating artificial materials in its nest, these can be a hazard for adults and chicks. The clutch consisted of two eggs that were incubated for 14 days, and the nestlings remained in the nest 12 days after hatching. To our knowledge, this work is the first to inform about the nesting of the Gray-headed Dove.

Resumen · **Observaciones sobre la anidación de la paloma cabeza gris (*Leptotila plumbeiceps*) en un cafetal con sombrío en Veracruz, México**
La paloma cabeza gris (*Leptotila plumbeiceps*) está distribuida desde el nororiente de México hasta el oriente de Colombia, pero sus hábitos reproductivos son prácticamente desconocidos. En mayo de 2020 encontramos a una pareja de esta especie anidando en un cafetal con sombrío en el centro-occidente de Veracruz, México. El nido era una plataforma circular de 20 cm de diámetro, elaborado con ramas, hojas y materiales artificiales. Evidenciamos la plasticidad de esta paloma al incorporar materiales artificiales en sus nidos, aunque estos puedan ser un riesgo para los adultos y polluelos. La nidada consistió en dos huevos que fueron incubados durante 14 días y los polluelos permanecieron en el nido hasta 12 días después de la eclosión. En nuestro conocimiento, este es el primer trabajo en documentar la anidación de la paloma cabeza gris.

Key words: Altas Montañas region · Anthropogenic materials · Clutch size · Fledgling · Incubation

INTRODUCTION

The Gray-headed Dove (*Leptotila plumbeiceps*) inhabits humid evergreen forests, second growth, coffee plantations, and edges (Howell & Webb 1995, Fernández-Popo 2014) from northeastern Mexico to northern Colombia, between 0 to 2,600 m a.s.l. (Howell & Webb 1995, Hilty & Brown 1986). As with 43% of Neotropical birds (Xiao et al. 2016), the reproductive biology of this dove is poorly known (Baptista et al. 2020). In this work we provide information on the nesting of a pair of *L. plumbeiceps* in a shade-grown coffee plantation in Veracruz, Mexico.

METHODS

The observations were made in the locality of San Rafael Piña, Zentla, Veracruz, Mexico (19°3'17.2"N, 96°49'4.5"W, 752 m a.s.l.). The tree stratum on the site was composed of *Mangifera indica*, *Inga* spp., *Cedrela odorata*, *Delonix regia*, *Prunus persica*, and *Musa paradisiaca*. The undergrowth was scarce due to the management of the plantation. A house was located about 15 m away from the nest. We checked the nest every two days during incubation and daily during the nestlings' brooding. We used 8 x 40 binoculars and a 300 mm reflex camera for observations. Before approaching the nest, we waited until the birds were not incubating or brooding to avoid stressing them.

RESULTS AND DISCUSSION

We found the nest before eggs were laid on 29 May 2020. The nest was a concave platform 20 cm in diameter, excluding the projecting ends of the sticks. It was made of twigs (mostly from coffee plants) and pieces of coffee, banana, grass, and bromeli-

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Figure 1. Nesting of the Gray-headed Dove (*L. plumbeiceps*) in San Rafael Piña, Veracruz, Mexico. A: Nest with two eggs. Nesting materials were twigs, leaves, and a piece of a plastic sack. B: Three-day-old chicks. Pin feathers in the wings are visible, the eyes were partially open. C: An adult brooding the six-day-old chicks. D: 11-day-old chicks completely feathered the day before leaving the nest.

ad leaves. In addition, the doves used artificial materials, such as a broom bristle and fragments of cardboard, rope, and a piece of plastic sack that served as the nest's bottom (Figure 1A). The nest was built 1 m above the ground on the crotch of a 2.7 m coffee plant.

On 30 May at 17:00 h, we visited the nest and found a single egg. The next day (31 May) at 09:59 h we visited the nest again and found a second egg. Both eggs were opaque white (Figure 1A). At that moment, one of the parents was incubating while the other was vigilant from the ground about 3 m away.

The two eggs hatched on 13 June. The chicks were naked and relatively immobile, with closed eyes. Three days after hatching, the two chicks had emerging pin feathers in the wings and their eyes were partially open (Figure 1B). On day six, the chicks had fully extended pin feathers, their wing feathers were beginning to erupt, and their eyes were fully open (Figure 1C).

On day 11, the two chicks were alert and totally feathered, but their tail feathers were still short. They were dark brown with light brown tips (Figure 1D). In addition, we observed that chicks were parasitized by flies (probably *Pseudolynchia* sp.). On day 12, the more developed chick left the nest in the morning, and the second one in the afternoon. The next day, we still observed the parents with the young on the ground near the nest. Both chicks were able to fledge successfully.

During our observations, at least one parent always cared for the chicks, either incubating, brooding, or perching next to the nest. We also observed that occasionally the parent outside the nest would vocalize.

For this species, only six individuals in reproduction have been reported: two collected in the Yucatan Peninsula, Mexico, in February and June (Paynter 1955), and four collected in Colombia in January (Hilty & Brown 1986). Together with our observations, these reports could indicate that *L. plumbleiceps*' breeding season goes from January to June.

In addition, according to our observations, the Grey-headed Dove has the ability to breed in anthropized habitats. The use of such habitats for nesting has also been observed in other species of *Leptotila*, such as *L. verreauxi*, whose nesting has been recorded in coffee, banana, and citrus plantations (Skutch 1964, Hall et al. 2018), and *L. conoveri*, with a nest found on a coffee plant (Carvajal-Rueda & Losada-Prado 2011).

L. plumbeiceps' nest had a similar structure to that of *L. verreauxi*, and both were heavier than that of *L. cassinii* (Skutch 1964). The nest was located at a similar height as that reported for other *Leptotila* species (Skutch 1964, Carvajal-Rueda & Losada-Prado 2011). In addition, the use of artificial elements in the nest has been recorded in other doves, such as *Zenaida macroura* and *Columbina talpacoti* (Parker & Blomme 2007, Batisteli et al. 2019). Although this is an example of the species' plasticity, these materials can be life-

threatening for nesting birds when getting entangled in them (Parker & Blomme 2007).

The eggs of *L. plumbeiceps* (250–340 g) were similar in coloration to those of the larger (390–530 g) *L. verreauxi* (Skutch 1964). Incubation took 14 days, the same period that has been recorded for *L. verreauxi* and *L. cassinii* (Skutch 1964). Brooding was 12 days, shorter than the 15–16 days reported for *L. verreauxi* (Skutch 1964). Parental behavior appears to be similar to that observed in *L. verreauxi* and *L. cassinii*, whose adults remain in the nest most of the time during the incubation and nestling periods (Skutch 1964, Hall et al. 2018). As in *L. verreauxi* and *L. cassinii*, cooing appears to be used by parents to communicate during nesting (Skutch 1964, Hall et al. 2018).

To our knowledge, this work is the first to document the reproduction of the Gray-headed Dove. The nesting habits we observed were similar to those of other species of *Leptotila*, including a two-egg clutch, a 14–day incubation period, biparental care, and the ability to use anthropized habitats for nesting. The nesting period was shorter than that of *L. verreauxi*. We recommend further field work with this species to better understand its reproductive biology, as well as to undertake actions for the elimination of plastic garbage in areas with managed agriculture to prevent damage to nesting birds.

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