

## The nest and eggs of Maroon-chested Ground-dove *Claravis mondetoura* in south-east Ecuador

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De las tres especies de palomas del género *Claravis*, es conocido solo la reproducción de una, *C. pretiosa*. De la reproducción de *C. mondetoura*, no existe información publicado. Aquí presentamos las primeras observaciones sobre la anidación de *C. mondetoura*, incluyendo una descripción del nido y los huevos. El nido era una plataforma, no tan frágil similar a otros nidos de Columbidae, que estaba ubicado en un área de *Chusquea* bambú. Los dos huevos eran completamente blancos y perdieron aproximadamente un 14 y 16% respectivamente de su peso original durante la incubación. El período de incubación duró 15 días y la fase de polluelo 14 días.

The three species of *Claravis* ground-doves are slightly larger and more arboreal than the closely related *Columbina* ground-doves, and further differ by being sexually dimorphic. Two species, Purple-winged Ground-dove *C. godefrida* and Maroon-chested Ground-dove *C. mondetoura*, probably form a superspecies and are both ecologically tied to seeding montane bamboo<sup>3</sup>. There is a fair amount known about the reproductive biology of Blue Ground-dove *C. pretiosa*<sup>1,2,6–8</sup>, but almost nothing for Purple-winged Ground-dove and there are no published breeding data for Maroon-chested Ground-dove<sup>3</sup>. Here we present the first description of the nest and eggs, as well as incubation and nestling periods from a Maroon-chested Ground-dove nest in south-east Ecuador.

### Chronology

All observations were made at Tapichalaca Biological Reserve, south-east Ecuador (04°30'S 79°10'W; 2,650 m). On 12 August 2005, at 09h00, we observed a female Maroon-chested Ground-dove enter a thicket of *Chusquea* bamboo carrying a small twig. Subsequent inspection revealed a near-complete but empty nest. At 05h45 on 14 August we observed the female on the nest, suggesting the bird had roosted there. When the female left the nest at 06h00 for the first time that day, video surveillance revealed the presence of a single egg laid, therefore, between the afternoon of 12 August and early morning of 14 August. We presume the first egg was laid on the morning of 13 August. On 14 August, we observed the laying of the second egg at 09h00. Neither egg had hatched by 18h30 on 28 August, but by 06h00 on 29 August, when the female stood in the nest for the first time, we observed one hatchling and one egg. Hatching of the first egg, therefore, occurred at some point during the night of 28 August or early morning of 29 August, whereas the second egg hatched at 08h00 on 29 August, yielding an incubation period of just less than 15 days. On 12 September, both

young left the nest at 12h15, giving a nestling period of slightly more than 14 days.

### Nest

The nest was situated 2.1 m above ground supported by a dense platform of *Chusquea* bamboo stalks, naturally collected sticks, petioles and leaves. Due to the surrounding vegetation, the nest was nearly invisible from the exterior of the vegetative clump, but was easily approached by the birds from one side after they had entered the dense tangle. Surrounding vegetation obscured the adults' view while on the nest, so rather than relying on visual detection of predators, the adults probably relied on a predator's inability to avoid shaking the entire tangle during an approach. The nest itself was a flat saucer of sticks, leaf petioles and grass fibres arranged in a somewhat circular pattern (Fig. 1). It measured roughly 15 cm in diameter and was c.7 cm tall outside. Inside, the egg cup was unlined and measured 7.5 cm in diameter and 2 cm deep. For further photographs see Greeney<sup>4</sup>.

### Eggs

Both eggs were immaculate white (Fig. 1) and measured 28.4 × 20.1 and 27.6 × 20.7 mm. At 14h00 on the day the second egg was laid, the first and second egg weighed 6.223 and 6.368 g, respectively. When weighed again two days later at 17h00 they weighed 6.102 and 6.227 g. From a 15-day incubation period, we estimate total mass-loss during incubation to be c.14% and 16% for the first and second egg, respectively. Both adults were observed incubating and caring for nestlings (Figs. 2–3).

### Other observations

During our observations at Tapichalaca, a large portion of the bamboo (*Chusquea* sp.) was seeding. We heard at least eight Maroon-chested Ground-doves daily, calling almost continuously throughout

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Figure 1. Nest and eggs of Maroon-chested Ground-dove *Claravis mondetoura*, Tapichalaca, Zamora-Chinchipec, Ecuador, August 2005 (H. F. Greeney)



Figure 2. Adult female Maroon-chested Ground-dove *Claravis mondetoura* incubating two eggs, Tapichalaca, Zamora-Chinchipec, Ecuador, August 2005 (H. F. Greeney)



Figure 3. Adult male Maroon-chested Ground-dove *Claravis mondetoura* incubating two eggs, Tapichalaca, Zamora-Chinchipec, Ecuador, August 2005 (H. F. Greeney)

the day with a monotonous *whoo-oóp* as described by Ridgely & Greenfield<sup>5</sup>. Though we spent considerable time in various parts of the reserve, and despite that bamboo was seeding throughout most of the area, all calling individuals and the nest were restricted to c.10 ha at the top of a large drainage above Quebrada Honda. This suggests that a loose breeding colony had formed and was restricted to this single drainage.

### Discussion

The nest, eggs, and incubation and nestling periods described here are similar to those of Blue Ground-dove<sup>6-8</sup>. A laying time of 09h00 also agrees with Skutch's<sup>6-8</sup> data for this species. The mass-loss of eggs during incubation is similar to the c.14% loss in White-throated Quail-dove *Geotrygon frenata* (R. C. Dobbs unpubl.). The supposition that the nomadic movements of Maroon-chested Ground-dove are, in part, dictated by seeding of montane bamboo<sup>3,5</sup>, appears to be supported by our observations of a loose breeding colony within an area of seeding *Chusquea* sp. bamboo. Our observations, however, suggest that seeding bamboo is not the only important factor in breeding, as much of the reserve contained seeding bamboo but apparently lacked breeding individuals. We encourage others who notice an unexpected number of Maroon-chested Ground-doves congregating thus to search for nests and gather further data on the breeding of this rather enigmatic bird.

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