

### The nest and eggs of Sapphire Quail-Dove *Geotrygon saphirina*

The genus *Geotrygon* includes 16 species of plump, predominantly ground-foraging doves<sup>1</sup>. It is confined to the New World, with several range-restricted species being of some conservation concern<sup>2</sup>. Nests of all but two species have been described<sup>1</sup>. One of the least-known species is Sapphire Quail-Dove *G. saphirina*, for which no published information is available on its breeding biology<sup>1</sup>.

Sapphire Quail-Dove occurs from north-west Colombia to south-east Peru, in the undergrowth of foothill forests at 600–1,100 m<sup>1,3</sup>. Here we describe the nest and eggs, based on three nests found in north-east Ecuador.

We found all three nests, between 30 March and 27 April 2005, at Mushullacta Community Reserve (00°50'S, 77°34'W; 1,150 m), adjacent to the Galeras portion of Gran Sumaco Reserve, prov. Napo. Nests were stick and rootlet

platforms sited 1.7, 1.8 and 3.0 m above ground, all adjacent to small streams. One nest was supported by a horizontal branch, at the point where it forked, of a *Psychotria* (Rubiaceae) tree.

Another nest was supported by four vines and an aroid leaf petiole in a tangle, and the last by the small branches of an understory tree. None of the nests was well concealed, with the incubating adults visible from most angles (Fig. 1). On 30 March, one nest contained a single, roughly one-third grown nestling. At a second nest the single egg was laid on 4 April, before 15h00, and the third contained two eggs on 27 April. Eggs were entirely buffy, one measuring 31.7 by 22.6 mm, and weighing 8.85 g on the day it was laid. We weighed the egg six days later and found it to have lost weight at a rate of 0.77%/day. Mean measurements of two nests (in cm) were: 14.3 ± 1.8 outer diameter; 5.8 ± 3.9 outer height; 8.5 ± 2.1 inner diameter; 2.3 ± 0.4

inner depth. We carefully took apart one nest, which consisted of 31 sticks and thick rootlets with no distinguishable lining. Mean stick length was 13.6 ± 3.8 cm, and mean diameter (measured in the centre) was 3 ± 1 mm.

The nests described here are similar in their sparse construction to those described for congeners<sup>1,3</sup>, as well as to those of most columbids. These nesting records, in conjunction with this species' previously noted predilection for shaded areas near streams<sup>6</sup>, suggests riparian areas may be the preferred microhabitat of this species. Like Ruddy Quail-Dove *G. montana* in Costa Rica<sup>7,8</sup> Sapphire Quail-Dove was found nesting during the wetter months. In Ecuador's northern Amazon, however, Ruddy Quail-Dove appears to begin nesting late in the drier season, possibly year-round<sup>4,5</sup>. Interestingly, unlike most species of columbids (pers. obs.), but similar to the findings of Skutch<sup>8</sup> for Ruddy Quail-Dove, the



Figure 1. Adult Sapphire Quail-Dove *Geotrygon saphirina* incubating two eggs, Mushullacta, prov. Napo, north-east Ecuador, at 1,150 m, 27 April 2005 (Murray Cooper)

nest which held a nestling was free of droppings, suggesting that Sapphire Quail-Dove also consumes its nestlings' faeces.

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#### References

1. Baptista, L. F., Trail, P. W. & Horblit, H. M. (1997) Family Columbidae (pigeons and doves). In: del Hoyo, J., Elliott, A. & Sargatal, J. (eds.) *Handbook of the birds of the world*, 4. Barcelona: Lynx Edicions.
2. BirdLife International (2004) *Threatened birds of the world 2004*. CD-ROM. Cambridge, UK: BirdLife International.
3. Gibbs, D., Barnes, E. & Cox, J. (2001) *A guide to the pigeons and doves of the world*. New Haven, CT: Yale University Press.
4. Greeney, H. F. (1999) Ecuadorian birds: some nesting records and egg descriptions. *Avicult. Mag.* 105: 127–129.
5. Greeney, H. F., Gelis, R. A. & White, R. (2004) Notes on breeding birds from an Ecuadorian lowland forest. *Bull. Brit. Orn. Club* 124: 28–37.
6. Ridgely, R. S. & Greenfield, P. J. (2001) *The birds of Ecuador*. Ithaca, NY: Cornell University Press.
7. Skutch, A. F. (1964) Life histories of Central American pigeons. *Wilson Bull.* 76: 211–247.
8. Skutch, A. F. (1981) *New studies of tropical American birds*. Publ. Nuttall Orn. Club 19. Cambridge, MA: Nuttall Orn. Club.

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