

Rufous-vented Ground Cuckoo

Neomorphus geoffroyi

Kevin J. Zimmer



Top: Rufous-vented Ground Cuckoo *Neomorphus geoffroyi salvini*, Canopy Adventure, El Valle de Antón, Coclé, Panama (Kevin J. Zimmer). The grayer color of the breast and belly of this individual is apparent in this photo. It was also more contrastingly scaled on the chest and neck than was the more rufescent bird.

Bottom: Rufous-vented Ground Cuckoo *Neomorphus geoffroyi salvini*, Canopy Adventure, El Valle de Antón, Coclé, Panama (Kevin J. Zimmer). Note the strong purplish gloss to the wings.



Top: Rufous-vented Ground Cuckoo *Neomorphus geoffroyi salvini*, Canopy Adventure, El Valle de Antón, Coclé, Panama (Kevin J. Zimmer). This was the more rufescent of the two ground cuckoos that were present at the army ant swarm.

Bottom: Rufous-vented Ground Cuckoo *Neomorphus geoffroyi salvini*, Canopy Adventure, El Valle de Antón, Coclé, Panama (Kevin J. Zimmer). Once more with crest erected and blue post-ocular streak exposed.

The New World ground cuckoos, genus *Neomorphus*, are a distinctive and charismatic group of four^{2,4} or five⁵ currently recognised species (depending on the taxonomy employed). These large and terrestrial cuckoos replace one another geographically in lowland and foothill tropical evergreen forest. All of the species are considered rare and poorly known^{3,4,6,7,8} and are among the most highly sought-after of Neotropical birds.

Ground cuckoos feed on a variety of large arthropods like scorpions, centipedes and spiders, and small vertebrates, mainly lizards and frogs^{2,4}. They are most often encountered at large swarms of army ants—particularly those of the genus *Eciton*—where they use the ants as ‘beaters’ to flush concealed prey out of the leaf litter^{2,3,4,6,7,8}. In some areas, especially Amazonia, they are also known to follow herds of peccaries or low-foraging troops of primates for the same reason^{2,3,4}. They are wary and typically melt away into the forest at the approach of humans. They vocalise only infrequently and the voice of several populations remains unrecorded⁴; those whose voice is known, have low-pitched, moaning calls that are

reminiscent of *Leptotila* and *Geotrygon* doves, or of the Zigzag Heron *Zebrilus undulatus*^{2,3,4,6,7,8}. Much more frequently heard, is the explosive clacking of the mandibles (like someone snapping their fingers firmly), often repeated in short bursts, which all species and populations apparently give in alarm^{2,3,4,6,7,8}.

The Rufous-vented Ground Cuckoo *Neomorphus geoffroyi* is by far the most polytypic and widespread member of the genus, with seven described subspecies distributed between Nicaragua and south-east Brazil^{2,4}. Morphological variation within this complex is pronounced, involving plumage pattern and colour^{2,4} as well as colouration of the iris (pers. obs.) and it seems likely that two or more of the named subspecies are better treated as distinct species. This is particularly true of the ‘Scaled Ground Cuckoo’, *N. [geoffroyi] squamiger*, whose range abuts or contacts that of nominate *N. geoffroyi* in south-east Amazonian Brazil, and which is already treated as a separate species by some taxonomists⁵. It may also be true of the geographically isolated and distinctively coloured subspecies *dulcis* and *maximiliani* of southeast Brazil’s Atlantic Forest region. The northwestern-most subspecies *salvini*, which is found from Nicaragua to Pacific Colombia^{2,4} is arguably the best-known member of the genus, and almost certainly the most familiar to birders. It is seen with some regularity at a number of frequently birded sites in Panama^{1,6}, but is less frequently encountered in Costa Rica⁸ where lowland forest is more fragmented and restricted. Regardless, it typically requires many trips to Panama or Costa Rica to see a ground cuckoo, and there are many birders whose experience in these regions is measured in decades who have yet to encounter their first.

Researchers who have followed the day-to-day movements of army ant swarms on Pipeline Road (Canal Zone, Panama) report frequent encounters with the Rufous-vented Ground Cuckoo (J. Knowlton, pers. comm.), but the majority of these are from areas of far Pipeline that are no longer accessible to the public. In recent years, perhaps the most reliable place for seeing Rufous-vented Ground Cuckoo has been the foothill forest above El Valle de Antón, Coclé Province, Panama, particularly near the grounds of the Canopy Lodge and the contiguous Canopy Adventure. The latter property (entrance fee required) features a trail to the Chorro de Macho waterfall and a recreational zipline through the forest canopy, and has been a part of the home range of a pair of ground cuckoos

See p 74 for colour version of photo and caption.



for at least the past several years (R. Arias, D. Rodríguez, H. Rodríguez and T. Sanchez, *pers. comm.*). When nomadic army ants wander through the Canopy Adventure grounds, the cuckoos are, as often as not, with them. Staff members at the Canopy Adventure walk the trails between the entrance booth and the zipline multiple times each day and are excellent sources of information regarding the presence of the ground cuckoos on any given day. A certain amount of luck is nonetheless required, because the understory vegetation is extremely dense, and even when ants are present, the swarms are often too far from the trails to offer any real chance of seeing the ground cuckoos.

On 29 March 2010, my wife Susan and I enjoyed one such lucky experience with the Rufous-vented Ground Cuckoo along the Canopy Adventure trail system. We were alerted to the presence of a ground cuckoo by Canopy Lodge/Canopy Adventure guides Harmodio Rodríguez and Tino Sanchez who had found the bird attending an *Eciton* swarm along the trail to the Chorro de Macho waterfall just minutes prior to our arrival in El Valle. After taking a few minutes to assemble my camera and recording gear we headed directly to the spot, where we encountered not one but two ground cuckoos! Best of all, the leading edge of the ant swarm had stalled in a small, relatively open depression with little ground-cover and a fair amount of light penetration to the forest floor, providing near optimal viewing conditions. The ground cuckoos were intent on feeding and paid relatively little attention to us. Foraging anywhere from 5–15 m apart, they maintained positions at the margins of the swarm front, often remaining motionless except for the persistent raising and lowering of their tails and expressive crests. Without warning, watchful vigilance would yield to a sudden, agile dash in pursuit of flushed prey, which were snapped up and consumed with little manipulation or handling time. In the beginning, the ground cuckoos were frenetic, bouncing up to low perches to avoid the onrushing ants, then dropping down to snatch something from the leaf litter before hopping back up again. As time passed, the birds became increasingly satiated and spent more time loafing between attempted captures, as is typical of many ant-following birds⁹. After allowing us more than 45 minutes of continuous observation, the ground cuckoos appeared to lose interest in foraging, and retreated back into the forest. Neither bird vocalised during this encounter, nor

did they give the characteristic mandible claps. Although none of the *Neomorphus* species are known to be sexually dichromatic^{2,4}, we did note that one member of the pair was markedly more rufescent on the lower cheeks and breast, less contrastingly scaled on the breast and sides of the neck, and usually showed more extensive blue skin behind the eye (although this latter feature did appear at least partly ephemeral due to momentary changes in feather arrangement).

In 25 years of fieldwork in Central and South America, I have enjoyed numerous exciting (and more than a few frustrating) encounters with members of the genus *Neomorphus*, but none that could compare with the quality of viewing or photographic opportunities provided by the pair of birds whose photographs appear here. It was truly a magical experience.

ACKNOWLEDGEMENTS

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Clockwise from top left:

Rufous-vented Ground Cuckoo *Neomorphus geoffroyi salvini*, Canopy Adventure, El Valle de Antón, Coclé, Panama (Kevin J. Zimmer). This rufescent individual typically exhibited a longer blue post-ocular streak than did the other individual, possibly an artifact of temporary feather arrangement. In this photo, the bird is in the middle of elevating its expressive crest, a behavior noted in all species of *Neomorphus*.

Rufous-vented Ground Cuckoo *Neomorphus geoffroyi salvini*, Canopy Adventure, El Valle de Antón, Coclé, Panama (Kevin J. Zimmer). The purplish-maroon sheen to the upperparts, typical of subspecies *N. g. salvini*, shows well in this photo. There is much geographic variation in the color of the glossy upperparts of these birds, with some subspecies being decidedly blue or greenish.

Rufous-vented Ground Cuckoo *Neomorphus geoffroyi salvini*, Canopy Adventure, El Valle de Antón, Coclé, Panama (Kevin J. Zimmer). This, again, is the more rufescent of the two individuals we encountered.

Rufous-vented Ground Cuckoo *Neomorphus geoffroyi salvini*, Canopy Adventure, El Valle de Antón, Coclé, Panama (Kevin J. Zimmer). The more uniformly rufescent underparts of this individual are particularly apparent in this photo. Note also that the chest and neck are less contrastingly scaled than on the other individual.

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