

Canopy roosting behaviour of Short-tailed and Rufous-bellied Nighthawks

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The two species of *Lurocalis* nighthawks represent a mystery to many Neotropical birders. In field guides we are presented with richly coloured, ornately patterned illustrations, frozen mid-wingbeat for an eternal instant, wings fully spread and all their markings evident. But in real life we experience fleeting encounters with ghostly silhouettes, flying quickly and erratically over the forest at dawn and dusk, like large bats. These momentary observations are usually enough to make an identification, but they can be hard to reconcile with the beautiful likenesses that inhabit the field guides, and they don't give us much insight into the full lives of these elusive creatures. Have you ever wondered where these nighthawks spend the daylight hours?

The Neotropical genus *Lurocalis* includes two allopatric species, the Short-tailed *Lurocalis semitorquatus* (19–26 cm) of the lowland Neotropics and the largely Andean Rufous-bellied Nighthawk *L. rufiventris* (25–26 cm). Both are large, dark nighthawks and sexes are alike. Distinctive characters of this genus are the short, square-ended tail and the short tarsus with its upper part feathered at the front. Both species have long, pointed wings, with the tips protruding well beyond the tail at rest. They lack two characters common to most Caprimulgidae: rictal bristles around the gape and white markings in the wings (Cleere 1998, 1999, 2010, Holyoak 2001).

Short-tailed Nighthawks are widely distributed from Nicaragua to Panama in Central America and throughout tropical lowland South America as far as extreme northern Argentina. They prefer forested lowland habitats, occurring in rainforest, humid lowland forest, along forest edges and especially near watercourses, between sea level and 1,800 m, rarely up to 2,550 m (Cleere 1998, 2010). Rufous-bellied Nighthawks occur in the subtropical and temperate zones along the Andes from western Venezuela and western Colombia, south through central Ecuador, and western and southern Peru to western Bolivia. They prefer rainforest, montane and cloud forest and forest edge, above 1,650 m, occasionally up to 3,300 m (Cleere 1998).

These *Lurocalis* nighthawks have similar habits. They are crepuscular, possibly also

nocturnal and partially diurnal. Both are wholly arboreal, known to roost and breed in trees high up in the canopy. They roost lengthwise on thick branches and their single egg is laid in a slight depression of a horizontal branch. Both are aerial feeders, foraging most actively at dusk and dawn by pursuing insects in flight. At dusk, they emerge from the forest canopy to forage, usually alone or in pairs, rarely in small groups. Their flight is fast and erratic with sudden changes of direction, and consists of bursts of shallow wing beats interspersed with frequent short glides; the behaviour is bat-like, which is often one's first impression. They forage well up above the forest canopy and along forest edges, but also come down to forage low over open ground, clearings, roads and rivers adjacent to forest (Cleere 1998, 1999, 2010, Holyoak 2011).

Short-tailed Nighthawks are common in the forested interior of French Guiana where they are found along forest edges and in open areas within the forest (Tostain *et al.* 1992). In July 2012, TD and Vincent Pelletier were making an inventory of the birds of the 'Flat à palmiers-bâches de la Waki', a ZNIEFF (Zone Naturelle d'Intérêt Écologique, Faunistique et Floristique) in the lowland forest around the confluence of the Petite Waki Creek and the Grande Waki Creek (c.03°11'N, 53°29'W) in south-western French Guiana. These creeks form the Waki River, a tributary of the Tampok River, which in turn flows into the Maroni River. On the afternoon of 17 July, TD climbed into

>> PHOTOSPOT SHORT-TAILED AND RUFOUS-BELLIED NIGHTHAWKS



Clockwise from top left

Figure 1. Short-tailed Nighthawk *Lurocalis semitorquatus* roosting on a horizontal branch of a wild nutmeg *Virola surinamensis* tree, Flat à palmiers-bâches de la Waki, French Guiana, 17 July 2012 (Tanguy Deville). Note: Figures 1 -5 all show the same individual nighthawk.

Figure 2. Short-tailed Nighthawk *Lurocalis semitorquatus*, eyes closed in its normal roosting position, 17 July 2012 (Tanguy Deville)

Figure 3. Roosting Short-tailed Nighthawk *Lurocalis semitorquatus* yawning, 17 July 2012 (Tanguy Deville). Note the obvious lack of rictal bristles.



a c.40 m high emergent wild nutmeg *Virola surinamensis* (Myristicaceae) tree, with horizontal branches spreading above the surrounding canopy. Sitting at a height of c.30 m, he discovered a Short-tailed Nighthawk roosting on a horizontal branch c.5 m away (Fig. 1). The roosting nighthawk

was observed for c.4 hrs from 13h30 onwards. It was not shy, sitting lengthwise on the branch, motionless with its eyes closed (Fig. 2). During the entire observation period, the nighthawk changed its roosting position several times by turning by 180°. It also started preening several times; it



Clockwise from top left

Figure 4. Roosting Short-tailed Nighthawk *Lurocalis semitorquatus* stretching, showing the rufous underside its wings, 17 July 2012 (Tanguy Deville). Note the feathered frontal upper part of the left tarsus.

Figure 5. Roosting Short-tailed Nighthawk *Lurocalis semitorquatus* in alert position with eyes open, alarmed by movements of the observer, 17 July 2012 (Tanguy Deville).

Figure 6. Immature Rufous-bellied Nighthawk *Lurocalis rufiventris*, Refugio Paz de las Aves, Ecuador, 16 November 2007 (Scott T. Olmstead). This bird can be identified as an immature by the extensive white in the wing coverts and tertials. Remarkably, this bird seems to be within a few inches of the perch of the left hand bird in Figure 7. Could it be the same individual before and after moulting juvenile feathers?

Figure 7. Two Rufous-bellied Nighthawks *Lurocalis rufiventris* roosting together, Refugio Paz de las Aves, Ecuador, 9 January 2008 (Scott T. Olmstead)



yawned (Fig. 3) and stretched its wings (Fig. 4) only once. Only when the observer changed his sitting position did the nighthawk open its eyes and take up a more alert position (Fig. 5). Next morning, it did not return to roost on the same branch.

In Ecuador, Rufous-bellied Nighthawks are uncommon in montane forest and adjacent clearings in the subtropical and temperate zones on both slopes of the Andes (Ridgely & Greenfield 2001). The photographs come from a private reserve on the west slope of the Ecuadorian Andes: Refugio Paz de las Aves (c.00°01'N, 78°42'W) is most famous among birders as the best place to see some of the more elusive species of Andean antpitta, but many other rare and intriguing Andean species are found here throughout the year. Among them is the Rufous-bellied Nighthawk, which can be seen flying over the forest at twilight, often giving its melancholy whistled call; it can also regularly be found on its day roost here. Although it sometimes occupies a solitary roost, two individuals are often seen together (Fig. 7); this may indicate a mated pair (Cleere 1999).

The nighthawks are always found resting in the canopy of mature cloud forest on horizontal or near-horizontal branches that are draped with clumps of dense hanging moss, often of a dark reddish colour. This colour seems to match the nighthawk's plumage. In SO's experience, the nighthawks seem to perch on bare patches of the branch, adjacent to the clumps of moss, rather than on the moss itself. The roosting branches are typically 10-15 m above ground, but because the terrain at Refugio Paz is so steep they are usually spotted at eye-level, looking out from the forest trails over the valley below. It is unknown how many individual nighthawks are regularly encountered at Refugio Paz; on many days they are not detected. However, we can cautiously say that the nighthawks do seem to express some fidelity to roosting sites, whether individually or collectively. The photos in Fig. 6 and 7 are of the same roosting branch, taken a month and a half apart.

On a wet morning in January 2008, SO had the opportunity to observe two of the nighthawks as they coped with steady rain and blowing mist. The nighthawks preened their breast feathers as needed, and shook water off their heads. They also rocked back and forth slowly and rhythmically as nearby leaves trembled in the wind. Although this behaviour could have been related to the wet conditions, it seemed quite similar to the rocking and swaying behaviour SO has observed in Rufous

Potoo *Nyctibius bracteatus* on its day roost. The gentle rocking motion of the nighthawks appeared to simulate vegetation moving with the breeze. Video footage of this behaviour is available at the Internet Bird Collection (<http://tinyurl.com/bbhdxj6>).

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