

New ornithological records for Serra do Cipó region, southern Espinhaço Range, Minas Gerais, Brazil

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Received 13 December 2018; final revision accepted 6 May 2020

Cotinga 42 (2020): 31–36

published online 22 June 2020

Apresentamos os primeiros registros de nove espécies de aves para a região da Serra do Cipó, localizada no sul da Cadeia do Espinhaço, Minas Gerais, Brasil. Também relatamos registros adicionais notáveis que incluem novo habitat ou faixa altitudinal ou primeira documentação para oito espécies de aves raras ou ameaçadas na região. Além de contribuir para o entendimento da comunidade local de aves, nossos registros trazem informações sobre a distribuição de espécies que apresentam movimentos migratórios, ocorrência enigmática e aparente expansão de área de ocorrência.

Serra do Cipó is in the southern portion of the Espinhaço Range, the largest Brazilian mountain chain, which extends through the states of Minas Gerais and Bahia. The region is recognised globally for its high endemism, overall species richness, and unique phylogenetic lineages of flora and fauna^{5,25}. Located near Belo Horizonte, the capital of the state of Minas Gerais, the Serra do Cipó is one of the best-studied parts of the Espinhaço¹⁷, with several studies of its avian community^{3,8,18,22,23,34} and additions to the local avifauna, including species new to science^{4,11,33}.

Here, we report further new records of birds for the Serra do Cipó. Additionally, we report noteworthy records involving new habitats or altitudinal range extensions, or first documentation of rare birds in the Serra do Cipó. Our records improve understanding not only of the local bird community, but also the distribution of migratory species, those of enigmatic occurrence, and some that appear to be expanding their distributions.

Most records were made within or around Serra do Cipó village, in the municipality of Santana do Riacho. The village is at the base of the western slope of the Espinhaço massif, which is in the Cerrado biome. The western slope of the massif is drier than the eastern slope, where Atlantic Forest is present. Other than cerrado vegetation, there are also gallery forests, dry forest enclaves on limestone outcrops, and extensive areas covered by exotic grasses. There are two federal conservation units in the region: Serra do Cipó National Park (SCNP) and the Morro da Pedreira Environmental Protection Area (APA Morro da Pedreira; an area of sustainable use with low degree of protection) that surrounds the SCNP and encompasses the village.

Some records were made in the Cipó Valley, which marks the border between Santana do Riacho and Jaboticatubas municipalities. In addition to the previously mentioned habitats, this valley harbours a meandering section of the

river with oxbow lakes and seasonally flooded areas²². Additional records were also made in the highlands with *campos rupestres*, including Alto da Boa Vista⁸, Alto do Palácio²³ (between Santana do Riacho and Morro do Pilar municipalities, partially inside SCNP) and Serra do Intendente (between Santana do Riacho and Conceição do Mato Dentro municipalities). The latter lies inside the northern limit of APA Morro da Pedreira and borders the Parque Estadual Serra do Intendente.

Records were made opportunistically between 2005 and 2019 during various field work. Geographic coordinates (datum WGS 84) were taken using a handheld GPS device or estimated from Google Earth software. Vocalisations were recorded using a FR-2LE recorder and ME-66 Sennheiser microphone. Sonograms were generated in Raven Pro version 1.4 (<http://ravensoundsoftware.com>). Specimens have been deposited in the ornithological collection of the Centro de Coleções Taxonômicas, Universidade Federal de Minas Gerais (CCT-UFMG), Belo Horizonte.

New records for Serra do Cipó

Picui Ground Dove *Columbina picui*

Two subspecies of *C. picui* are recognised: *C. p. picui* in southern South America, and *C. p. strepitans* in north-east Brazil, with records in northern Minas Gerais^{31,32}. The latter subspecies, which is smaller and paler^{1,12}, was frequently observed around Serra do Cipó village since 2009, in gardens, on dirt roads, and in cerrado vegetation, occasionally foraging with Ruddy Ground Dove *C. talpacoti*. Nesting under roofs of houses (Fig. 1b) recorded in September and December 2011, and January 2012. We collected two males in Serra do Cipó village with the following data: testes 8.0 × 4.2 mm, mass 50.2 g, total length 181 mm (DZUFMG 6360, collected 29 December 2009 at 19°20'14"S 43°36'58"W; 860 m); testes 8.3 × 5.0 mm, mass 41 g, total length 175 mm (DZUFMG 7238, collected

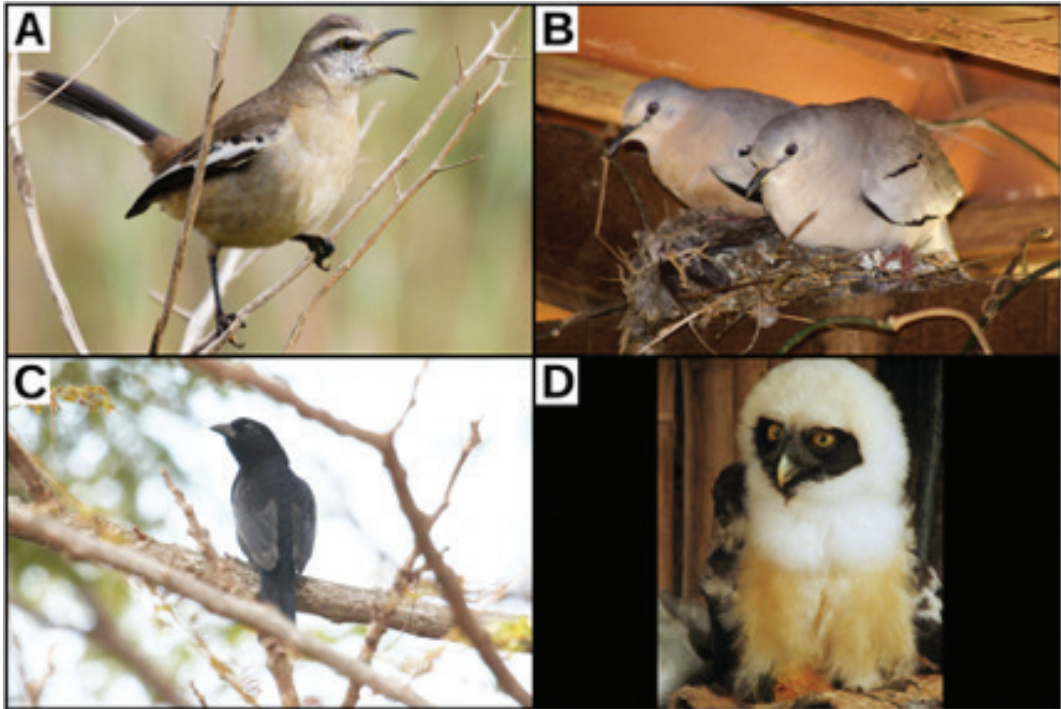


Figure 1. (A) White-banded Mockingbird *Mimus triurus*, Serra do Cipó, Minas Gerais, Brazil, May 2013 (Guilherme Freitas); (B) Picui Ground Doves *Columbina picui* at a nest, Serra do Cipó, Minas Gerais, Brazil, December 2011 (Lilian Costa); (C) Scarlet-throated Tanager *Compsiothraupis loricata*, Serra do Cipó, Minas Gerais, Brazil, July 2013 (Guilherme Freitas); (D) juvenile Spectacled Owl *Pulsatrix perspicillata*, Serra do Cipó, Minas Gerais, Brazil, December 2006 (Lilian Costa).

25 January 2014 at 19°20'10"S 43°37'08"W; 880 m). Apparently a recent colonisation, possibly caused by climate change that would favour expansion to higher latitudes of this and other birds typical of the Brazilian semi-arid caatinga²⁰. Examples include Spot-backed Puffbird *Nystalus maculatus*^{18,34}, White-naped Jay *Cyanocorax cyanopogon* and Scarlet-throated Tanager *Compsiothraupis loricata* (see below), with the southern Espinhaço representing the southernmost distribution for some of these species.

Wood Stork *Mycteria americana*

One flew over the rio Cipó (19°20'41"S 43°37'02"W; 800 m) on 6 January 2012. The species is migratory¹⁰ and is considered Vulnerable in Minas Gerais⁷. It was previously known as a seasonal visitor to a natural lake near Serra do Cipó, in Lagoa Santa²¹.

Green Ibis *Mesembrinibis cayennensis*

Recorded several times between 2009 and 2015 in gallery forests of the rios Cipó and Bocaina, near the main entrance to SCNP (19°20'33"–19°20'47"S 43°36'09"–43°37'33"W; 795–800 m). One was photographed in flight on 13 December 2009.

Buff-necked Ibis *Theristicus caudatus*

Several records in the lowlands and one in the highlands of Serra do Cipó. On 20 March 2005, three were observed perched on a tall tree in gallery forest along the rio Cipó, inside SCNP (19°20'42"S, 43°36'58"W; 800 m). On 27 September 2006, two were foraging near the main entrance of SCNP (19°20'55"S 43°37'45"W; 800 m). On 20 October 2008, one was photographed foraging in degraded *cerrado* at Serra do Cipó village (19°20'12"S, 43°37'59"W; 810 m) and, on 3 January 2017, two were photographed in the highlands of Serra do Cipó, at Serra do Intendente (19°05'42"S 43°36'57"W; 1,440 m). There is just one additional record on the mountaintops of eastern Brazil, a single at Parque Estadual do Pico do Itambé³².

Plumbeous Kite *Ictinia plumbea*

One flying over the Cipó Valley (19°21'34"S 43°36'17"W; 810 m) on 6 October 2019. The species is partially migratory in Brazil²⁶.

Bat Falcon *Falco rufigularis*

We photographed one flying along a cliff at Alto Palácio (19°17'02"S 43°32'16"W; 1,500 m) on 13 February 2015. There are no other records in the

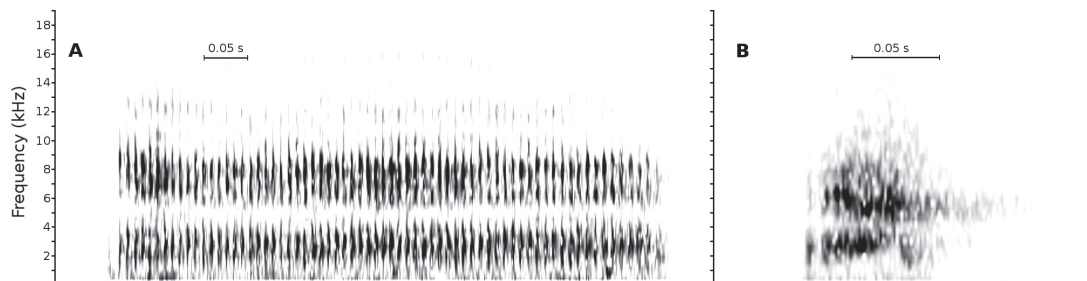


Figure 2. Sonogram of White-banded Mockingbird *Mimus triurus* recorded at Serra do Cipó, Minas Gerais, Brazil, May 2013; (A) longer call; (B) shorter call.

Serra do Cipó or from other mountaintops in south-eastern Brazil³².

White-naped Jay *Cyanocorax cyanopogon*

We heard the characteristic calls of *C. cyanopogon*—which are less raucous than, and clearly distinguishable from, those of Curl-crested Jay *C. cristatellus*, in a dry forest patch on limestone outcrops (19°19'45"S 43°36'22"W; 940 m) on an unknown date in 2012. It was probably a vagrant, as we did not record this species, which is typical of the Brazilian *caatinga*²⁰, in the region again.

White-banded Mockingbird *Mimus triurus*

On 22–25 May 2013 we photographed and sound-recorded a female at Serra do Cipó village (19°20'13"S 43°36'55"W; 870 m), and later collected it (DZUFMG 7163; smooth ovary 6.0 × 4.5 mm, fully ossified skull, yellow irides, dark brown maxilla, pale grey mandible with dark brown tip, worn rectrices, mass 40.2 g, total length 218 mm; Figs. 1a, 2). It was observed on a hilltop with scattered houses, pasture and *cerrado*, usually foraging with Chalk-browed Mockingbirds *M. saturninus* and, once, with Saffron Finch *Sicalis flaveola*, Yellow-bellied Seedeater *Sporophila nigricollis*, Rufous-collared Sparrow *Zonotrichia capensis* and Rufous Hornero *Furnarius rufus*. It gave a long call and, after playback, a shorter variant (Fig. 2). *Mimus triurus* is at least partially migratory, ranging from southern through western South America and moving north in the austral winter⁶. Its non-breeding range is not well known⁶. There are no breeding records in Brazil²⁶. The northernmost published record in Brazil is from Mato Grosso²⁹, with additional recent records from the states of Rio de Janeiro¹⁶ and Minas Gerais^{27,28}. In the latter, records are from Cambuquira (April 2014), Pompéu (August 2015), and Carneirinhos (August 2017)^{27,28}. All records in the state were in autumn and winter. Our record, the only one evidenced by a specimen and sound-recordings, was the first in Minas Gerais and the north-easternmost in South America.

Scarlet-throated Tanager

Compsiothraupis loricata

We made several records in 2012–13 at Serra do Cipó village and in the Cipó Valley (19°20'41"S 43°37'02"W; 800 m; 19°20'02"S 43°37'26"W; 830 m). Most records involved flocks of c.8 birds that were heard and occasionally seen. On 15 July 2013, we photographed one in a flock (Fig. 1c). No red-throated individuals were observed. This species is typical of the Brazilian *caatinga*²⁰ and is probably expanding its range, having also been documented further south in the Espinhaço (one collected by M. F. Vasconcelos on 24 April 2018 at Fazenda Bocaina, Santa Bárbara municipality, 20°00'00"S 43°28'15"W; 745 m; deposited at the Coleção Ornitológica, Museu de Ciências Naturais, Pontifícia Universidade Católica de Minas Gerais, Belo Horizonte; MCNA 5631).

Other noteworthy records

Ruby-topaz Hummingbird

Chrysolampis mosquitus

A male was photographed in Serra do Cipó village (19°20'13"S 43°36'55"W; 870 m) on 2 January 2016, visiting *Lantana* (Verbenaceae) flowers. Previously recorded only in the highlands in Serra do Cipó, in *campos rupestres* at Alto da Boa Vista⁸. The species makes migratory movements²⁴.

White-throated Hummingbird

Leucochloris albicollis

One trapped in a mist-net in gallery forest by the rio Cipó, inside SCNP (19°20'42"S 43°36'58"W; 800 m), on 7 May 2005. It was banded, photographed and released in the same place. Occurrence on the lower part of the western slope of the Serra do Cipó is unexpected, as the species is typical of the Atlantic Forest to which, until recently, it was considered endemic³⁰. Previous records in Serra do Cipó were all in highlands on the east slope^{3,18,23,34}.

Chaco Eagle *Buteogallus coronatus*

We photographed one flying over *campos rupestres* at Alto da Boa Vista on 20 August 2012. The species is considered Endangered in Minas Gerais⁷, Brazil¹⁹ and globally². Previously recorded only on the east slope of the Serra do Cipó^{3,4}.

Spectacled Owl *Pulsatrix perspicillata*

We photographed a juvenile still with much white down, blackish facial disc, feathered tarsi and toes, and yellow irides (characteristic of *P. perspicillata*¹³, Fig. 1d) at Açude (19°21'02"S 43°39'19"W; 780 m) on 24 December 2006. The bird probably fell from a nest in nearby gallery forest. It died later and was prepared as a specimen (DZUFMG 6330; male). Previously recorded in the lowlands of the Serra do Cipó¹⁸.

Nacunda Nighthawk *Chordeiles nacunda*

One in flight at dusk over a degraded *cerrado* near Cipó village (19°20'14"S 43°36'58"W; 860 m) in January 2016. The species is partially migratory²⁶. Previously recorded only in the Serra do Cipó highlands, on *campos rupestres* of the east slope, where considered rare³.

Coal-crested Finch *Charitospiza eucosma*

A male observed in a recently burnt *cerrado* inside SCNP (19°20'58"S 43°36'56"W; 800 m) on 18 November 2012. Previously recorded in the Serra do Cipó lowlands^{18,22}. Often considered a fire specialist, it appears to be nomadic moving into areas affected by fire¹⁵. Rodrigues *et al.*²² also reported one a few days after a burn. Globally Near Threatened².

Plumbeous Seedeater *Sporophila plumbea*

Observed in *campos rupestres* at Alto da Boa Vista (c.19°17'29"S 43°34'59"W; 1,205 m) on 11 June 2010, 3 September 2012 and 27 December 2019, on rocky outcrops near a small stream, where a male was photographed. Southern populations considered migratory¹⁴. Previously recorded only in lowlands of Serra do Cipó, in the Cipó Valley, where it is rare²². In *campos rupestres*, *S. plumbea* has been recorded further north, in the central Espinhaço³².

Cinereous Warbling Finch *Microspingus cinereus*

A pair in degraded *cerrado* at Serra do Cipó village (19°20'14"S 43°36'58"W; 860 m) on 18 October 2009. One heard on 12 April 2011. Additional records were made in *cerrado* at nearby Lapinha (19°07'05"S 43°40'18"W; 1,100 m) on 5 April 2014 and 3 October 2019. Previous records in the Serra do Cipó were all in the highlands, where it occurs at low density^{8,9,23}. It is rare and is suspected to be semi-nomadic in response to fire succession².

Costa & Rodrigues⁹ found a resident pair in *campos rupestres* at Alto da Boa Vista.

Acknowledgements

We thank all those who helped with field work, landowners who permitted us to enter their land, and staff of the Parque Nacional Serra do Cipó and APA Morro da Pedreira. The Brazilian environmental agencies (IBAMA and ICMBio) granted research permits 12743, 26346, 36015 and 42519. The observations reported here were mostly made during field work supported by CNPq, CAPES, FAPEMIG, Fundação O Boticário de Proteção à Natureza, and US Fish and Wildlife Service. Marcelo F. Vasconcelos kindly provided information concerning the specimen of *Compothraupis loricata* held at MCNA. Two anonymous referees made helpful suggestions that improved the manuscript.

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