

New records of the Rufous-faced Crane, *Laterallus xenopterus* (Gruiformes: Rallidae) in Brazil and observations about its habitat

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ABSTRACT: New records of the Rufous-faced Crane, *Laterallus xenopterus* (Gruiformes: Rallidae) in Brazil and observations about its habitat. The Rufous-faced Crane, *Laterallus xenopterus*, is a bird that is rarely spotted at Paraguay, central Brazil, and central Bolivia. There are known species records at the Brazilian states of Distrito Federal, São Paulo, and Minas Gerais. Here, we provide information about new areas of occurrence for this species in Brazil and detailed observations of its habitats. In October 2012, two individuals were registered in the municipality of Cristalina, state of Goiás. In December 2012, the species was found in a new locality of Distrito Federal and at the municipality of Patrocínio, Minas Gerais. In February 2013, a new record for this species was obtained in the municipality of Itiquira, Mato Grosso. In all occasions, the bird was spotted in humid environments, which were characterized by the presence of grass and a thin water layer.

KEYWORDS: cerrado; distribution; grasslands; rail; range extension.

The rare Rufous-faced Crane, *Laterallus xenopterus* (Gruiformes: Rallidae), has been recorded in highly disjoint areas of eastern Paraguay, central Brazil, and central Bolivia (Taylor 1998; Bird Life International 2013). Currently, its conservation status in Brazil is “least concern,” while at global scales this species is considered “vulnerable” (IUCN 2012). The species is considered “critically endangered” in São Paulo (Antunes 2009) and it is categorized as “data deficient” in Minas Gerais (Fundação Biodiversitas 2008).

There were recent records in Paraguay in Concepción, Canindeyú, Caazapá, Itapúa, San Pedro, and Amambay (Myers & Hansen 1980; Storer 1981; Hayes 1995; Lowen *et al.* 1996; Taylor 1998; BirdLife International 2013). In Bolivia, the only records are from Beni Biological Station Biosphere Reserve and Estancia Cristalino, department of Beni (Brace *et al.* 1998; Tobias & Seddon 2007). In Brazil, the species was registered in the Distrito Federal and in the states of São Paulo and Minas Gerais. In 1978, a specimen was captured at Brasília National Park, Distrito Federal (Sick 1979). At the beginning of the 1980's, the Rufous-faced Crane was registered at the wet

grasslands of the IBGE Ecological Reserve, and later, in March 1989, at the Brasília Zoo (Negret & Teixeira 1984; Collar *et al.* 1992). In São Paulo, a specimen was found dead in Itirapina (Oniki & Willis 1996). Then, in 2004, a specimen was captured in a trap for small mammals, at Jacaré-Riachão Farm, in the municipality of Felixlândia, Minas Gerais (Vasconcelos *et al.* 2006).

This communication aims to increase the knowledge about *Laterallus xenopterus* at the Brazilian Cerrado, providing additional information about new occurrence areas and species habitats.

On October 25th 2012, V.G.C. observed, photographed, and recorded a call of *L. xenopterus* in the municipality of Cristalina (16°45'S, 47°38'W), state of Goiás, 150 km south of Distrito Federal. The bird inhabited a region of water source amidst a grassland (*campo limpo*), right above *veredas* (*i.e.*, a phytophysiology of cerrado predominantly dominated by emergent palms of *Mauritia flexuosa* growing in grass-covered swamps). The environment was characterized by the presence of sparse pteridophytes and dense native grasses, ranging from 0.5 to 0.8 m high. A thin water

layer about 1- to 2-cm deep was covering the soil. The following day, at the same location, two individuals were registered after the use of playback method. One of the individuals was photographed (Figure 1) and had its call recorded, which was then deposited at the website Wikiaves (WA789394). While this specimen was being recorded, the second individual was heard some meters distant from the observer. Although no record was taken, the threatened Dwarf Tinamou, *Taoniscus nanus* (Tinamiformes: Tinamidae), was spotted at the same site, in a place that had exposed soil not covered by water.

On November 15th 2012, an audio record of the an individual was made by V.G.C. at Fazenda Água Limpa (15°56'S, 47°46'W), located south of Brasília, in Distrito Federal. This bird inhabited a hilly area of dense native grasses near the riparian vegetation. The environment was

very humid, with areas covered by a thin water layer about 0.2- to 1.0-cm deep. Some spots had dense pteridophytes tussocks.

On December 27th 2012, two individuals had their calls recorded by V.G.C. and D.W.M.S. They were spotted in a grassland (*campo limpo*), located in the municipality of Patrocínio (19° 2'S, 46°58'W), state of Minas Gerais, about 520 km away from Brasília (the area where was recorded the greatest number of occurrences). Located directly upland from a riparian area and a rugged terrain, this moist environment had dense clumps of pteridophytes and dense tussocks of natural grass, ranging from 0.6 to 0.9 m in height. The water layer varied from 0.3- to 1.5-cm deep. These individuals responded well to the playback and one individual even appeared in a clear area, allowing good visualization.



FIGURE 1. Rufous-faced Crake *Laterallus xenopterus* observed in the municipality of Cristalina, Goiás (photo by V.G.C.).

On February 28th 2013, another two individuals were photographed and had their calls recorded (Figure 2) by V.G.C. and L.F.S. They were recorded at a preserved area of *veredas*, in the municipality of Itiquira (17°13'S, 54°9'W), state of Mato Grosso, about 850 km from Brasilia. These were the first documented records of this species for the state. The habitat (Figure 3) was humid with a thin water layer (0.4- to 2.0-cm deep) covering the soil and dense clumps of natural grass, varying from 0.3- to 1.4-m tall. We also observed a juvenile *L. xenopterus*. When compared to the adult bird, the juvenile was smaller and had a noticeably paler plumage. While the adult has a ferruginous head and neck, white throat, and cream chest (Gwynne *et al.* 2010), the juvenile form presented shades of dark gray on the head, neck, throat, and chest. Unlike the adult, whose sides are barred black (Gwynne *et al.* 2010), the flanks of the young were also gray.

It is worth mentioning that this record was taken a few kilometers from the border of the state of Mato Grosso do Sul, inferring that the bird might also occur in that state. The record of *L. xenopterus* in the Reserva Natural

del Bosque Mbaracayú, Department of Canindeyú, in Paraguay (Brace *et al.* 1998) also points to a potential occurrence of this species in the adjacent Brazilian state of Mato Grosso do Sul. Records from the present study as well as previously documented records of the species in Brazil, Paraguay, and Bolivia are compiled in Figure 4.

In all habitats where the species was registered, the presence of a dense grass cover and a thin water layer appeared to be a determinant factor for the occurrence of this species. These observations corroborate the works of Myers & Hansen (1980) and Brace *et al.* (1998), who also found the bird in flooded areas partially covered by grass tussocks. In the present study it was noted that the Rufous-faced Crake used similar habitat to that of the Ocellated Crake, *Micropygia schomburgkii* (Gruiformes: Rallidae), but Ocellated Crake habitat had no water layer.

It is important to note that a major fire occurred sometime after V.G.C. visited the occurrence site and recorded *Laterallus xenopterus* in the city of Cristalina, state of Goiás. A month later, the same author returned and discovered the fire had significantly modified the

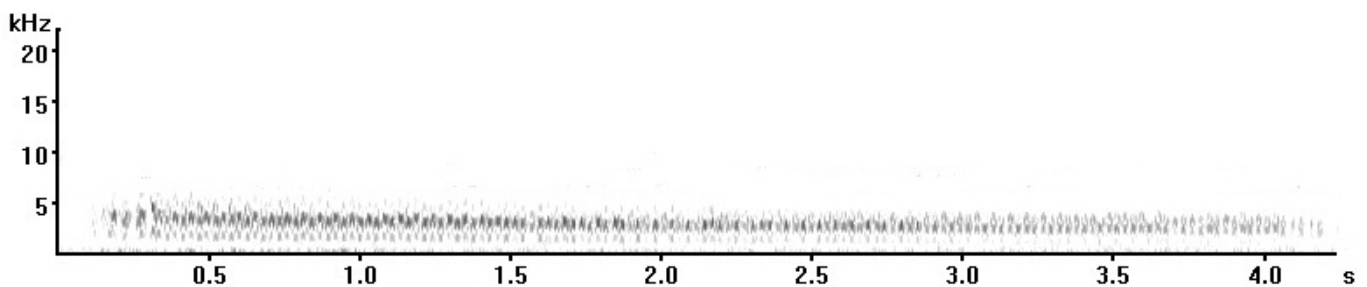


FIGURE 2. Spectrogram of complete song given by Rufous-faced Crake *Laterallus xenopterus* in the municipality of Itiquira, Mato Grosso.



FIGURE 3. *Veredas* habitat in the municipality of Itiquira, Mato Grosso, where two individuals of Rufous-faced Crake *Laterallus xenopterus* were recorded (photo by V.G.C.).

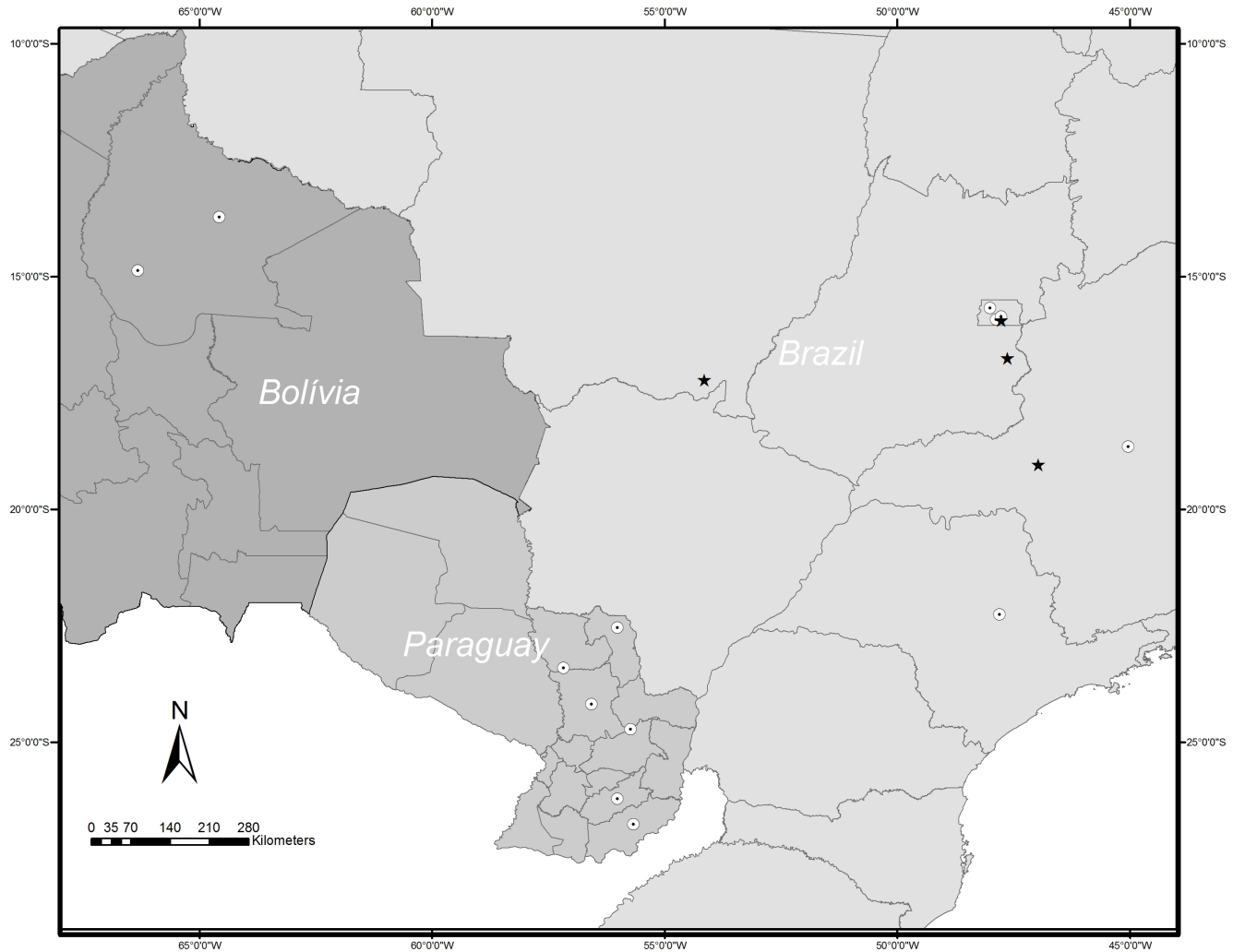


FIGURE 4. Distribution of Rufous-faced Crake *Laterallus xenopterus*. White circle: previous records; black star: new records.

habitat. At this time, he registered two *L. xenopterus* individuals, reconfirming the permanence of the species at the site and reinforcing the theory that this bird presents some tolerance to fires (BirdLife International 2013).

The expansion of agriculture, especially of soybean and maize monocultures, cattle raising, *Eucalyptus* and *Pinus* plantations, mining activities, and hydroelectric projects in central Brazil results in habitat loss and modification of habitat quality (Collar *et al.* 1992; Lopes *et al.* 2009). Therefore, these expansions threaten the permanence of many bird species, including *Laterallus xenopterus*. These changes are possibly leading *L. xenopterus* to a population decline (BirdLife International 2013).

In the present study, it was observed that the Rufous-faced Crake often uses a specific habitat type. It was mainly found next to water springs, riparian areas, and *veredas*, which are locations that are very threatened by the expansion of agriculture and livestock. Furthermore, we noticed that not all areas characterized as typical habitat for this species (*i.e.*, with the presence of clumps of grasses and a thin covering of water) had

individuals present. Recently acquired knowledge about *L. xenopterus* about its vocalizations and habitat preferences facilitated our field work. Nevertheless, there is a need for more focused research about the species, especially that would provide new information about its biology and geographical distribution, which is necessary for future conservation efforts.

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REFERENCES

- Antunes, A.Z. 2009.** *Laterallus xenopterus*, p.147. In: Bressan, P.M.; Kierulff, M.C.M.; & Sugieda, A.M. (Org.). Fauna ameaçada de extinção no Estado de São Paulo - Vertebrados. São Paulo: Fundação Parque Zoológico de São Paulo e Secretaria do Meio Ambiente.
- BirdLife International. 2013.** Species factsheet: *Laterallus xenopterus*. <http://www.birdlife.org> (access on 13 March 2013).
- Brace, R.; Hornbuckle, J.; & St. Pierre, P. 1998.** Rufous-faced Crake *Laterallus xenopterus*: a new species for Bolivia, with notes on its identification, distribution, ecology and conservation. *Cotinga*, 9: 76-80.
- Collar, N. J.; Gonzaga, L. P.; Krabbe, N.; Madroño Nieto, A.; Naranjo, L. G.; Parker, T. A.; & Wege, D. C. 1992.** *Threatened birds of the Americas: the ICBP/IUCN Red Data Book*. Cambridge: International Council for Bird Preservation.
- Fundação Biodiversitas. 2008.** *Listas Vermelhas das espécies da fauna e da flora ameaçadas de extinção em Minas Gerais*. Belo Horizonte: Fundação Biodiversitas.
- Gwynne, J.A.; Ridgely, R.S.; Tudor, G.; & Argel, M. 2010.** *Aves do Brasil: Pantanal e Cerrado*, v. 1. São Paulo: Editora Horizonte.
- Hayes, F. E. 1995.** *Status, distribution and biogeography of the birds of Paraguay*. New York: American Birding Association.
- IUCN. 2012.** 2012 IUCN Red List of threatened species: *Laterallus xenopterus*. <http://www.iucnredlist.org/details/106002845/0> (access on 05 February 2012).
- Lopes, L.E.; Malacco, G.B.; Alteff, E.F.; Vasconcelos, M.F.; Hoffmann, D.; & Silveira, L.F. 2009.** Range extensions and conservation of some threatened or little known Brazilian grassland birds. *Bird Conservation International*, 19: 1-11.
- Lowen, J. C.; Bartrina, L.; Clay, R. P.; & Tobias, J. A. 1996.** *Biological surveys and conservation priorities in eastern Paraguay (the final reports of Projects Canopy '92 and Yacutinga '95)*. Cambridge: CSB Conservation Publications.
- Myers, P. & Hansen, R.L. 1980.** Rediscovery of the Rufous-faced Crake (*Laterallus xenopterus*). *Auk*, 97: 901-902.
- Negret, A. & Teixeira, D. M. 1984.** The Ocellated Crake (*Micropygia schomburgkii*) of central Brazil. *Condor*, 86: 220.
- Oniki, Y. & Willis, E. O. 1996.** Morte acidental em aves comuns por fatores humanos. *Revista do Centro de Ciências Biomédicas da Universidade Federal de Uberlândia*, 12: 33-37.
- Sick, H. 1979.** Notes on some Brazilian birds. *Bulletin of the British Ornithologists' Club*, 99: 115-120.
- Storer, R. W. 1981.** The Rufous-faced Crake (*Laterallus xenopterus*) and its Paraguayan congeners. *The Wilson Bulletin*, 93: 137-300.
- Taylor, B. 1998.** *Rails: A Guide to the Rails, Crakes, Gallinules and Coots of the World*. United Kingdom: Pica Press.
- Tobias, J.A. & Seddon, N. 2007.** Nine bird species new to Bolivia and notes on other significant records. *Bulletin of the British Ornithologists' Club*, 127: 9-84.
- Vasconcelos, M.F.; D'Angelo Neto, S.; Kirwan, G.M.; Bornschein, M.R.; Diniz, M.G.; & Silva, J.F. 2006.** Important ornithological records from Minas Gerais State, Brazil. *Bulletin of the British Ornithologists' Club*, 126: 212-238.

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