



Observations on Black-legged Seriema, *Chunga burmeisteri*, and five other birds from the Paraguayan Dry Chaco

Observaciones sobre la saría de patas negras, *Chunga burmeisteri*, y otras cinco aves del Chaco seco Paraguayo

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<https://zoobank.org/References/6216A256-1E86-46FC-978B-CC974E7F4AFB>

Abstract: We provide some novel observations on six bird species from the Chaco of Paraguay. These are additions to the behaviour and diet of the Chaco endemic Black-legged Seriema *Chunga burmeisteri*, evidence of nest raiding by Great Rufous Woodcreeper *Xiphocolaptes major*, novel roosting behaviour in Chaco Chachalaca *Ortalis canicollis*, a maximum count for Paraguay of Least Sandpiper *Calidris minutilla*, an unusual foraging behaviour in Striated Heron *Butorides striatus* and predation on a wasp nest by White Woodpecker *Melanerpes candidus*.

Key Words: *Butorides striatus*, *Calidris minutilla*, *Cariamidae*, *Melanerpes candidus*, *Ortalis canicollis*, *Xiphocolaptes major*.

Resumen: Proporcionamos algunas observaciones novedosas sobre seis especies de aves del Chaco Paraguayo. Estas son adiciones al comportamiento y la dieta de la saría de patas negras *Chunga burmeisteri*, especie endémica al Chaco, evidencia de saqueo de nidos por el trepador gigante *Xiphocolaptes major*, nuevo comportamiento de descanso de la charata *Ortalis canicollis*, un conteo máximo para Paraguay del playerito enano *Calidris minutilla*, un comportamiento de alimentación inusual de la garcita azulada *Butorides striatus* y la depredación de un nido de avispas por el carpintero blanco *Melanerpes candidus*.

Palabras Clave: *Butorides striatus*, *Calidris minutilla*, *Cariamidae*, *Melanerpes candidus*, *Ortalis canicollis*, *Xiphocolaptes major*.

The avifauna of the Paraguayan Dry Chaco is composed of over 400 species, eighteen of which are considered endemic to the ecoregion (Guyra Paraguay 2004) and which occur in a matrix of xerophytic forests, agricultural/ranch land and palm savannas. Since the publication of the groundbreaking study of the Chaco avifauna by Short (1974), the region has been visited frequently by ornithologists and birdwatchers, but surprisingly few publications about the ecology of the birds of the region have resulted from this. Particularly poorly-studied are the Chaco endemic species (Guyra Paraguay 2004), meaning that opportunistic observation on the ecology of these species are of ornithological interest. In this note we provide some novel behavioural observations on six bird species

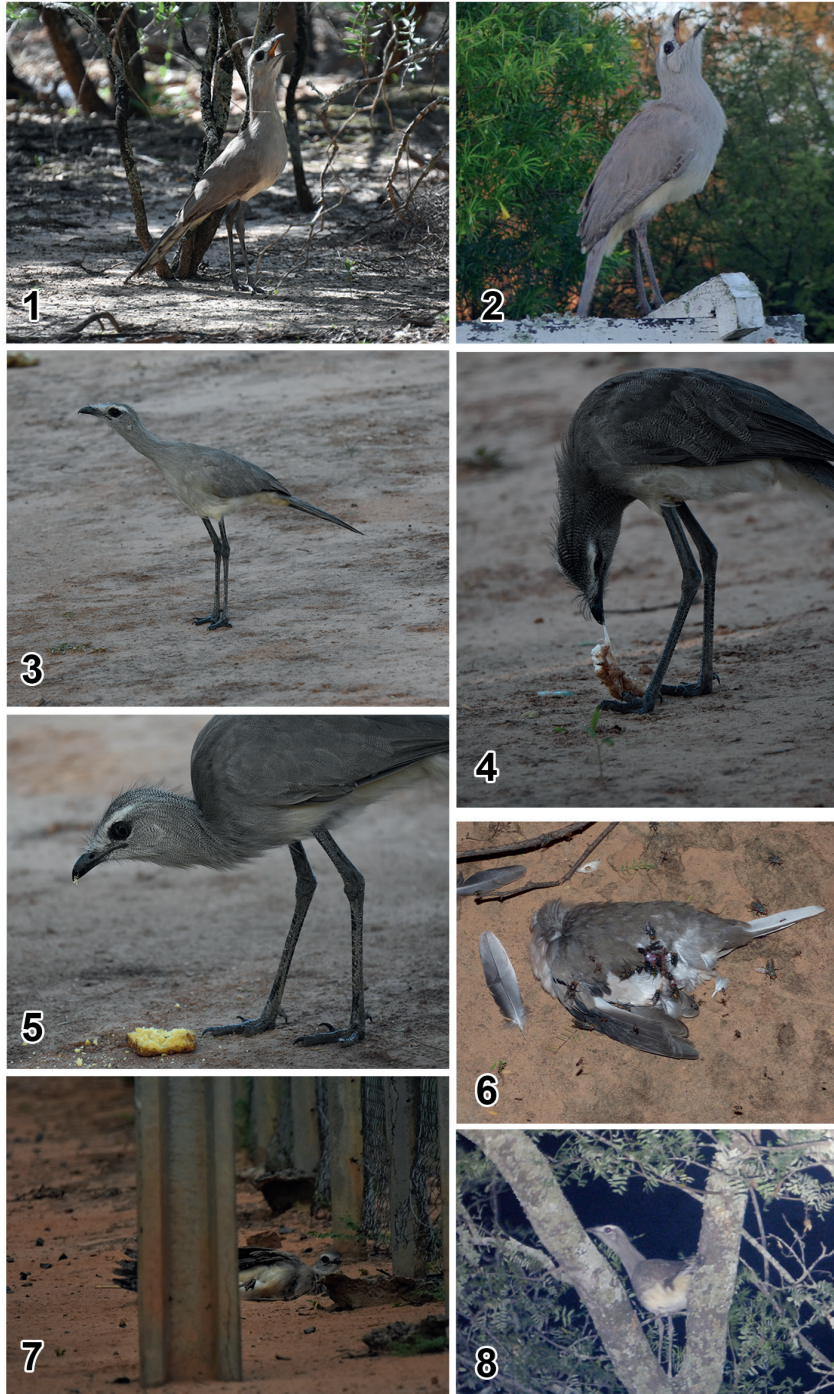
from the Chaco of Paraguay, three of which are considered endemic to the ecoregion (Guyra Paraguay 2004).

Results and discussion

Behaviour of Black-legged Seriema *Chunga burmeisteri* (*Cariamidae*) (Figs. 1-8)

The Chaco endemic Black-legged Seriema is a common species in the Paraguayan Chaco, but its behaviour is poorly documented (Hartlaub, 1860; Boyle, 1917; Brooks, 2014; Gonzaga *et al.* 2020). Whilst observing at close quarters vocalising Black-legged Seriemas in the Paraguayan Chaco it was noticed that changes in the extension of the neck result in changes in the tone of the call (PS), with the extended neck (Fig. 1) producing higher-pitched notes and the with-





Figures 1-8. Black-legged Seriema and signs of their activity. **1-2 and 8)** Fortín Toledo, Boquerón department, different dates. **3-7)** Teniente Enciso National Park, Boquerón department, 16.iii.2023. **1)** Adult calling with neck extended to produce higher pitched notes. March 2023. **2)** Adult calling with neck withdrawn to produce lower pitched notes. May 2019. **3)** Vigilant adult. **4)** Immature consuming beef fat. **5)** Adult consuming sopa paraguaya. **6)** Dead Picui Ground Dove *Columbina picui* showing signs of scavenging by Black-legged Seriema. **7)** Immature dust-bathing on its back. **8)** Adult at roost in a tree 19 March 2024. [Photos **1, 3, 4, 5 and 7** by Arne Secelle; Photos **2, 6 and 8** by Paul Smith].

drawn neck (Fig. 2) resulting in a lower-pitched call (see Supplementary material), similar to the pattern observed in the related Red-legged Seriema *Cariama cristata*. The bright orange gape of the species is particularly eye-catching when the species is calling.

A probable sexual difference in vocalizations was noted in pairs responding to playback. The first responding bird (presumably the male) produces hollower notes resembling an echoing *kokokoko*, and the second bird (presumably the female) produces harsher notes in duet resembling *kreekreekree* in response. The presumed male birds approach the source of the playback much more closely and with intense curiosity, whilst the presumed female birds remain at a greater distance, often running frantically from side to side through the undergrowth.

Birds respond strongly to playback, approaching closely. Vigilant birds extend the neck and tail, and move the entire body stereotypically from side to side, so as to look at the source of the recording from each eye alternately and occasionally pumping the tail (Fig. 3). The reason for these repeated stereotyped movements is unclear, but we suspect that the species may not possess strong binocular vision and that the sideways changes allow the bird to develop a better mental picture of its surroundings.

The diet of this species has been said to include grass (possibly *Cenchrus ciliaris*), leguminous shoots (*Prosopis alba*), fruits and leaves, reptiles (*Ameiva* and *Erythrolamprus*), small frogs, water snails, small mammals (bats and rodents), small passerines and arthropods (Orthoptera, Coleoptera, Blattodea, Araneae, Myriapoda) (Hartlaub, 1860; Brooks, 2014; Gonzaga *et al.*, 2020). Observations of three individuals (two adults and an immature) at Teniente Enciso National Park, Boquerón department on 16 March 2023 revealed several new dietary observations (PS). Two individuals (one adult and the immature) were observed at close range to scavenge from bins at the accommodation block (with a third adult bird

remaining vigilant), where they consumed beef fat (Fig. 4) and *sopa paraguaya* (a traditional Paraguayan corn bread) (Fig. 5). One of these feeding individuals also flew up about a metre from the ground to take a large green caterpillar (likely Sphingidae) from the bloated trunk of a samu'u tree (*Ceiba chodatii* - Malvaceae). Perhaps most interesting was a bird poking at the corpse of a Picui Ground-dove *Columbina picui* and eating the breast tissue (Fig. 6). The seriema did not kill this bird, which lacked a head and had a strong putrid smell that was attracting flies, so this is apparently the first evidence of scavenging in a wild individual of this species, having been previously only reported in captive birds (Gonzaga *et al.* 2020). We suggest that the omnivorous diet of this species may be wider and more adaptable than previously believed.

Gonzaga *et al.* (2020) state that immatures have the “back and upperwing-coverts spotted white; head, neck and breast distinctly barred”. The bird we identified as immature showed a distinctly more barred head and neck than the other individuals, but this barring extended to the mantle and upperwing-coverts, in other words these areas of the plumage were not “spotted white”. We would add that adults are also very finely vermiculated with black or grey on the head and neck (though this is visible only at close range in some cases), and there may be some sexual or age-related variation in the intensity of this vermiculation (though this requires confirmation).

The immature (which was apparently in moult), was observed to briefly dust-bathe in loose sand on the same date, a previously unreported behaviour in this species. It dusted the breast feathers before turning onto its back and dusting the mantle and wing feathers (Fig. 7). The whole behaviour lasted no more than 10 seconds before it returned to its feet and ruffled its feathers, and ran to catch up with the adults. After returning to the group it was observed to raise the right wing to its full extent on five

separate occasions.

An individual at Fortín Toledo, Boquerón department was photographed at night roosting in a quebracho tree approximately 4m from the ground on 13 March 2023 and another was seen at a similar height in a different tree near the same locality on 19 March 2024 (Fig. 8). The bird stood erect in the fork of a tree and was alone.

On 5 April 2024 an individual of this species was found injured on a road side at Fortín Toledo, Boquerón department with a severely damaged leg rendering it immobile, likely the result of a vehicle collision. Though still alive this individual was being attacked by a Turkey Vulture *Cathartes aura*, which had plucked the tail and several wing feathers from it, apparently in an attempt to weaken the bird and accelerate its death. The injured seriema defended itself from the observer by pecking violently with the bill.

Roosting of Chaco Chachalaca *Ortalis canicollis* (Cracidae) (Fig. 9)

On 18 April 2023 two individuals of this species were photographed roosting on a power line at Laguna Capitán, Presidente Hayes department (PS, FR) (Fig. 9). Whilst we have observed this behaviour previously at various localities in the Paraguayan Chaco, this is the first time we are aware that it has been documented photographically or mentioned in the literature. The species typically roosts in pairs or small groups, somewhat exposed at the tops of trees or low bushes.

Plunge diving by Striated Heron *Butorides striatus* (Ardeidae)

An individual was observed (PS, AS) to plunge dive and capture a fish following a straight flight of approximately 5 m at Fortín Toledo, Boquerón department on 22 March 2023. Though this behaviour “may be commonplace” (Hancock & Kushlan, 1984), we are aware of only one previous published observation of it, by an individual of this species from Australia (Davis,

1983; Recher *et al.*, 1983), and have observed it only once in almost twenty years of observations of this species in Paraguay.

Great Rufous Woodcreeper *Xiphocolaptes major* (Furnariidae) predating nest of Picui Ground-dove *Columbina picui* (Columbidae)

On 26 November 2022 at Fortín Toledo, Boquerón department, an adult *X. major* was observed to predate the nest of a Picui Ground-dove. The woodcreeper physically attacked the dove which was sitting on the nest, driving it off its eggs and wounding it in the process so that it was unable to fly away. The woodcreeper took an egg in its bill and flew away with it out of sight, presumably to consume it. The dove did not return to the nest during the period of observation (GC).

The diet of this species is typically considered to be largely insectivorous, but small vertebrates such as reptiles, mammals and amphibians have been occasionally reported in the diet (Hayes & Escobar Argaña, 1990; Carrizo, 1991; Haene, 1996; Lopes *et al.*, 2005; Salvador & Bodrati, 2013; Camargo & Laps, 2016). Bodrati (2003) reported several instances of nest predation and attempted nest predation by this species on various passerines (Tityridae, Tyrannidae and Vireonidae)

However, this observation is notable because of the violent pecking at the sitting dove which was apparently injured during the attack, and then the presumed consumption of a bird's egg, which is previously unreported in the diet.

Record Paraguay count of Least Sandpiper *Calidris minutilla* (Scolopacidae)

Least Sandpiper *Calidris minutilla* is an uncommon species in southern and central South America and considered a vagrant in Paraguay, with few previous records all from Bahía de Asunción, Central department and the Cuenca Upper Yacaré Sur area (Central Chaco Lagoons) of Presidente Hayes and Boquerón department (Steinbacher, 1962; Hayes *et al.*, 1990; eBird).



Figures 9-11) Birds and their activities. **9)** Chaco Chachalaca. Laguna Capitán, Presidente Hayes department, 18 April 2023 [Photo by Paul Smith]. **10-11)** White Woodpecker. Fortín Toledo, Boquerón department, 2.iii.2023 [Photo by Jonny Plessas]. **9)** Pair roosting on a power line. **10)** Individuals hammering at the branch holding a nest of *Polybia ruficeps* in order to cause the insects to abandon it. **11)** Damage caused by the woodpeckers feeding on the nest.

On 23 November 2022 five individuals of this species were observed in the presence of Pectoral Sandpiper *Calidris melanotos* and Collared Plover *Charadrius collaris* at Laguna Capitán, Presidente Hayes department (GC, FR, PS). This is the highest single count of Least Sandpiper recorded from Paraguay to date.

White Woodpecker *Melanerpes candidus* (Picidae) raiding a wasp nest (Figs. 10-11)

A flock of eight White Woodpeckers were seen to raid the nest of the paper wasp *Polybia ruficeps* (Vespidae: Polistinae) at Fortín Toledo, Boquerón department on 2 March 2023 (PS). Our observations correspond closely to those of Sazima (2014) who reported predation of the nest of a related wasp species *Polybia paulista* in São Paulo, Brazil. One or sometimes two woodpeckers at a time tapped repeatedly at the branch suspending the wasp nest to drive the insects away (Fig. 10), the birds flying away when the cloud of wasps became too dense.

At the same time other members of the flock perched on nearby trees and telegraph poles, all the while calling loudly. When the wasps eventually deserted the nest the woodpeckers descended to feed on wasp larvae and pupae, causing considerable destruction to the nest and breaking open large holes in the side (Fig. 11). By the following morning only the upper part of the nest (where it attaches to the branch) remained, with the wasps still massing on the surface. It was not clear whether the near complete destruction of the nest was entirely the work of the woodpeckers themselves or some other predator.

Acknowledgements

PS is grateful to the Pronii program of CONA-CyT Paraguay. We are grateful to Bolivar Garcete for confirming the identification of the wasps in this note. PS thanks Ian G. Bailey for helping to source some obscure literature.

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Supplementary material

[bmnhnp_v28ae2024003_Sup_01.mp4](#) (Video).

[bmnhnp_v28ae2024003_Sup_02.mp4](#) (Video).