



Expansion of the Distribution of *Touit Stictopterus* (Psittacidae) for the Central Cordillera, Colombia

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Abstract

We present a new record of *T. stictopterus* for Colombia, in the Tolima department, expanding the distribution of the species 423.9 km to the north, over the central mountain range.

Keywords: Andes Mountains; Psittacidae; Range Extension

Introduction

Touit stictopterus is a species little known and considered rare of which the urgency of having basic information on its natural history [1-3], distribution and population density has been pointed out, which will allow to have a Clearer idea of your current state. It has been pointed out that all records are valuable and should be reported to have a closer look at their status [1,4]. At the global and national level the species has been classified as vulnerable (VU) [5,6]. Mainly due to the fact that this parrot has lost about 42.5% of its habitat, rapidly and continuously [7].

Its distribution includes the north of South America in what corresponds to Colombia, E of Ecuador and North of Peru [8-10], inhabits humid cloudy and semi-humid forests and seasonally cultivated areas; occupying the natural regions of the Amazonian Tropical Humid Forest, Eastern Montane Forest and Eastern Piemontano Forest in temperate and cold thermal floors [10] from 600 m to 2,400 m, although it is more common between 1,050 and 1,700 m [10,11].

In Ecuador it is distributed to the east, in the Provinces of Morona- Santiago, Napo, Pastaza, Sucumbíos and Zamora Chinchipe; as well as Miazí and other areas of the Cordillera

del Cóndor [10,12,13]. Towards the north of Peru, it has been recorded on the north side of the Marañon River at 1,500- 1,600 m (Pomara, Amazonas Department) [3], in the Cajamarca Department (above San José de Lourdes), San Martín and the extreme southwest of Loreto [1,13].

In Colombia eleven localities are currently known where it has been sighted, which mainly comprise jungle regions between 600 and 1,800 m [8,14]. The first historical records of the species in the country were made; on the western slope of the Eastern Cordillera, in Cundinamarca, near Fusagasugá at 1,750 m and occasionally between 2,200 and 2,300 m [8,15], at the entrance to the Serranía de la Macarena, Meta at 1,070 m and on the western slope of the central mountain range in the department of Cauca, San Andrés de Pisimbala at 1,600 m [14]; of historical locations of the species only in the latter, the species has been observed in recent years, after almost 50 years, thus it was considered extinct in Colombia or in some parts of the country [1,16-18].

However, recently the species has been reported on the eastern slope of the Eastern Cordillera in Cerro La Mica, Los Picachos NPN, Caquetá at 1,600 m (Bohórquez & Repizo in Salaman et al. 2002), Boyacá in Santa María and Cundinamarca in Mámbita [19,20] on the western slope of

the same mountain range in Pandi, Cundinamarca [11,20] and south of Huila where there have been several recent records uploaded to the eBird platform; in the municipality of Argentina on May 9, 2020, by Roderik Daza near the village of Rosario (2 ° 09'50.4 "N 76 ° 04'19.4" W); Palestine in the Eduardo Reserve on May 9, 2020 (1 ° 44'55.9 "N 76 ° 05'51.6" W) and the El Encanto Ecotourism Reserve (1 ° 43'12.5 "N 76 ° 07'09.6" W) where they were ten individuals observed on May 13, 2020 and in Garzón, Finca de Nidia Calderón vereda las Mercedes (2 ° 09'06.1 "N 75 ° 32'13.6" W) (Figure 1). Likewise, some authors have pointed out that the species is also possibly distributed by Nariño [8,17].

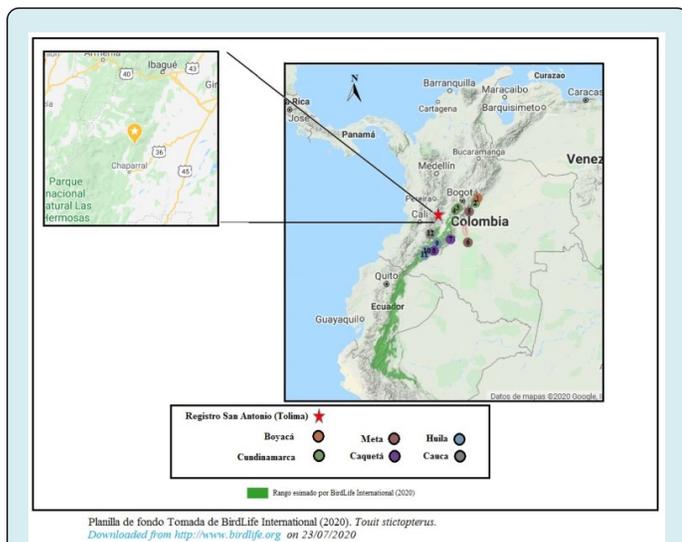


Figure 1: Geographical distribution of *Touit stictopterus* in Colombia. Registration in San Antonio, Tolima (Red star, see magnification for more detail in upper left box). Boyacá (coffee): 1. Santa María; Cundinamarca (green): 2. Mámbita, 3. Fusagasugá, 4. Pandi; Meta (purple): 5. Serranía Macarena; Caquetá (purple): 6. Cerro La Mica PNN Los Picachos; Huila (blue): 7. Argentina, 8. Garzón and 9. Palestina; Cauca records (gray): 10. San Andrés de Pisimbala. Cubarral Meta The Vereda power plant The Finca Rosania power plant between 712 and 817 m and in the San Miguel farm La Pradera and Belén de los Andaquies, Caquetá mine is 548 m.

As observed by Dugand, et al. [21], the species seems to have altitudinal migrations conditioned by the fruiting of some wild species or the cultivation of corn [8,21]. Its diet is based on fruits of "rubber" (*Ficus* spp.), "Capes" (*Clusia* spp.) And matapalos (*Loranthaceae*); in addition, it tends to feed on and invade cornfields when the grain is maturing [21].

Its reproductive biology is unknown in Colombia, however Del Hoyo, et al. [22] mention that there is some

evidence of reproductive activity in Ecuador for March, and indicate that in that country large flocks are documented between the months of June and November, which are supposedly the non-reproductive months [17].

It is known to be local and to have low population densities. In Peru, the species is considered to have declined in its populations, as well as it has been pointed out that the distribution is fragmented throughout the Andes and that it is usually located in some isolated hills [9,16], According to Renjifo, et al. [18], Colombian populations are unfortunately found in areas subject to high deforestation and consequently to severe habitat fragmentation.

It is suspected that there is a slow and constant decline in the population of the species due to the destruction and fragmentation of the hábitat [1]. The population is estimated to be 1,000-2,499 individuals based on an evaluation of known records, abundance descriptions, and range size. This estimate is equivalent to 667-1,666 mature individuals, rounded here to 600-1,700 mature individuals [13,23].

In this article we report the first record of *Touit stictopterus*, for Tolima (Figure 1). Municipality where the presence of more than 800 species of birds is recognized, of which 22 are parrots. The record was made on Jul 20, 2020, corresponding to a group of four individuals observed between 09:30 and 10:30 in the forest of the Finca El Manantial Nature Reserve, San Antonio (Figure 2) (3 ° 55'37.8 "N; 75 ° 26'39.9" W) over 2,700 m where the species had previously been observed by J Vargas, et al. in Feb 2019. *T. stictopterus*, is known in the area as black parakeets, these were observed flying over the canopy of the trees, Dugand, et al. [21] pointed out that the species is also known as Lora Boba while Borrero, et al. [14] report that in Cauca they are called parrots.



Figure 2: *Touit stictopterus* observed, in the municipality of San Antonio, department of Tolima, Colombia.

The records of the species were made in a low-growth forest where a good state of conservation is evidenced, where various palms abound, including the Cera palm (*Ceroxylon wettinia*) and Chontas of the genus *Aiphanes* sp (Figure 3) [24,25]. Similarly, other species of parrots have been identified in the area, such as the yellow-eared (*Ognorhynchus icterotis*) and the cholera parrots (*Psittacara wagleri*). This forest is located on the so-called Cordillera de Calarma, an isolated projection of the central mountain range from which different tributaries of the Tetuán River emerge. So this observation corresponds to an isolated forest, which agrees with what is referenced by some authors in Peru [9,16].

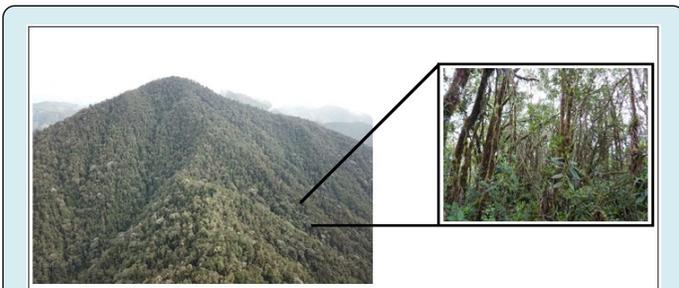


Figure 3: Location of *Touit stictoapterus* within the forest of the Finca EL Manantial Nature Reserve, in the municipality of San Antonio, department of Tolima, Colombia.

Conclusion

The record of *T. stictoapterus* complements the distribution of the species, which extends from the south of Huila and the western flank of the eastern mountain range, in such a way that the hypothesis of the presence of this species in Tolima is validated, since some authors such as Rodríguez-Mahecha and Hernández, et al. [14] already pointed out the possible presence of the species in the department, due to the analysis of the records of the species known until then in Colombia. However, this record covers an area not considered or indicated by various researchers as potential, because they only considered the distribution of the species in the border areas of the department of Tolima with Huila, Cauca and Cundinamarca. We conclude that this new record of *T. stictoapterus* allows us to learn more about the population status of the species, where the distribution is extended by 423.9 km, in a straight line over the central mountain range, starting from the northernmost record known to date in the municipality of Argentina (Huila).

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