

Semipalmated Sandpiper *Calidris pusilla* in Brazil: occurrence away from the coast and a new record for the central-west region

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ABSTRACT: The Semipalmated Sandpiper, *Calidris pusilla*, is a Western Hemisphere migrant shorebird for which Brazil forms an internationally important contranuptial area. In Brazil, the species main contranuptial areas is along the Atlantic Ocean coast, in the north and northeast regions. In addition to these primary contranuptial areas, there are also records of vagrants widely distributed across Brazil. Here, we review the occurrence of vagrants of this species in Brazil, and document a new record of *C. pusilla* for the central-west region and a first occurrence for the state of Goiás.

KEY-WORDS: geographical distribution, Nearctic migrant, shorebird, state of Goiás, vagrant.

The Semipalmated Sandpiper *Calidris pusilla* (Linnaeus, 1766) is a migratory shorebird species that breeds in the Arctic and sub-Arctic regions of Alaska and Canada (Andres *et al.* 2012, IUCN 2019). Every year, as the northern autumn approaches, Arctic populations fly from 3000 to 4000 km to South America (Hicklin & Gratto-Trevor 2010).

In Brazil, *C. pusilla* occurs during all months of the year, but with very few records during the boreal winter (eBird 2019, GBIF 2019, SNA 2019, WikiAves 2019). This species uses the Atlantic route, occurring from the coastal zone of the state of Amapá to the state of Rio Grande do Sul, where the main contranuptial areas with population concentrations of this bird are located along of the Reentrâncias Paraenses and Maranhenses and in the states of Amapá and Pernambuco (Rodrigues 2007, Carvalho & Rodrigues 2011, Rodrigues *et al.* 2015, SNA 2019, GBIF 2019). In the southeast and south regions, only a small population of this species is observed (Harrington *et al.* 1986, Resende *et al.* 1989, Barbieri *et al.* 2013, eBird 2019, GBIF 2019, WikiAves 2019).

In addition to the primary contranuptial areas mentioned above, there are also records of vagrants widely distributed inland in Brazil (Table 1). Based on the available information, five previous records of *C. pusilla* were found for the central-west region, of which three were obtained in the municipality of Poconé, state

of Mato Grosso (Cintra 2011, Levatich & Padilha 2019) and two in the municipality of Corumbá, state of Mato Grosso do Sul (Serrano 2010, Tubelis & Tomas 2003). However, there is no evidence that these records have been correctly identified, as individuals appear not to have been collected and sent to a scientific collection, nor are images available to validate records.

On 11, 12 and 13 November 2018, an adult specimen of *C. pusilla* was observed in an area denominated “Lago da Piscicultura Frutos D’Água” in the municipality of Goiânia, state of Goiás, Brazil (16°34'25"S; 49°18'48"W, 719 m a.s.l.). During three consecutive days, *C. pusilla* was sighted in the late afternoons, foraging most of the time along with a maximum of four White-rumped Sandpipers *Calidris fuscicollis* (Vieillot, 1819) and with two Solitary Sandpipers *Tringa solitaria* Wilson, 1813 (Fig. 1). Very similar to the congeneric *C. mauri* and *C. minutilla*, which were not present at the site, the *C. pusilla* individual was safely identified through high-quality photographic records. Compared to *C. minutilla*, its size was larger, with gray upper plumage and black legs, thick beak with absence of slight (Barnett *et al.* 2004, Lees *et al.* 2013). In contrast to *C. mauri*, the head was smaller and less frontal in shape, the beak had a thick tip and the center of the chest was not striated (Barnett *et al.* 2004, eBird 2019). Digital vouchers were uploaded to WikiAves (WA3179032).

Table 1. Review of the occurrence of vagrant *Calidris pusilla* in Brazil. Location: state, municipality, place description and geographical coordinates - latitude (S), longitude (W). Verifiable evidences: P – photograph, S – preserved specimen, R – recovery of marked individual, V – visually observed; - no specimen available. *n* = Number of individuals. Specimens: number of tumble and their respective collections (CLO:EBIRD – eBird, Cornell Lab of Ornithology; UNICAMP:FJNV – Fonoteca Neotropical “Jacques Viellard”; WA – WikiAves).

Location	Date	Verifiable evidences	<i>n</i>	Specimens	Reference
Amazonas, Manaus, little lake in Careiro	29 March 1987	V	1	-	Stotz <i>et al.</i> 1992
Amazonas, Iranduba, Marchantaria Island	16 February 1989	V	8	-	Stotz <i>et al.</i> 1992
Pará, Terra Santa, Mexiana Island (1°57'S; 56°21'W)	-	-	1	-	Hellmayr & Conover 1948 <i>apud</i> Serrano 2010
Tocantins, Itacajá, near the municipality of Recursolândia	31 October 2000	V, R	1	-	CEMAVE 2007 <i>apud</i> Serrano 2010
Maranhão, Timon, crown of the Paranaíba River	2 November 2017	V, P	2	WA2765260	Galvão 2017
Ceará, São Benedito, Ibiapaba (4°00'S; 41°00'W)	08 January 1929	-	1	-	Hellmayr & Conover 1948 <i>apud</i> Serrano 2010
Ceará, Sobral, Lagoa das Marrecas (3°41'15.8"S; 40°19'51.3"W)	13 October 2018	V	11	CLO:EBIRD:OBS666659024	Levatic & Padilha 2019
Pernambuco, Petrolina (9°24'18.1"S; 40°32'10.0"W)	15 February 2003	V	1	CLO:EBIRD:OBS72752146	Levatic & Padilha 2019
Pernambuco, Serra Talhada, Açude do Saco	08 December 1973	S	1	UNICAMP:FJNV:0000000656	Toledo 2019
Bahia, Juazeiro, Caatinga Forest east (9°30'52.4"S; 40°07'23.6"W)	15 February 2003	V	2	CLO:EBIRD:OBS471407770	Levatic & Padilha 2019
Bahia, Mata de São João, Sapiranga Reserve (12°34'04.6"S; 38°02'14.8"W)	25 January 2013	V	1	CLO:EBIRD:OBS499778311	Levatic & Padilha 2019
Bahia, Santa Rita de Cássia, Preto River (11°00'S; 44°32'W)	04 May 1910	-	1	-	Hellmayr & Conover 1948 <i>apud</i> Serrano 2010
Santa Catarina, Santa Rosa de Lima, Pousada Doce Encanto (28°02'00.2"S; 49°09'00.9"W)	18 November 2017	V	1	CLO:EBIRD:OBS550251697	Levatic & Padilha 2019
Mato Grosso, Poconé, Pantanal of Poconé	between 1982 and 1986	-	-	-	Cintra 2011
Mato Grosso, Poconé, Pousada Curicaca (16°30'16.0"S; 56°40'30.7"W)	11 September 2013	V	1	CLO:EBIRD:OBS224967965	Levatic & Padilha 2019
Mato Grosso, Poconé, Porto Jofre (17°21'52.3"S; 56°46'30.4"W)	04 September 2017	V	1	CLO:EBIRD:OBS668324309	Levatic & Padilha 2019
Mato Grosso do Sul, Corumbá, Nhecolândia in Campinas Farm	October 1988 and October 1989	V	-	-	Serrano 2010
Mato Grosso do Sul, Corumbá, Nhimirim Farm (18°59'S; 56°39'W)	between 1991 and 1992	V	-	-	Tubelis & Tomas 2003



Figure 1. (A) Adult of *Calidris pusilla* foraging next to adult individual of *Tringa solitaria*, on 11 November 2018; (B) *C. pusilla* foraging next to an individual of *Calidris fuscicollis*, on 12 November 2018; (C) *C. pusilla* observed on 13 November 2018. All records made in Goiânia, Goiás state, Brazil. Photo author: J.A. Oliveira.

We reviewed the records of vagrants of *C. pusilla* in Brazil and found five previous observations for central Brazil, but there are not enough evidences to confirm the correctness of the identification of these records (Table 1). Thus, here we document a new occurrence of *C. pusilla* for the central-west region and a first record for the state of Goiás.

A bird of international conservation concern, *C. pusilla* is classified as “Near Threatened”, due to ongoing population declines (IUCN 2019) linked to several physiological, ecological and human-related challenges, such as: species needs to perform periodic scales for resting and foraging; good habitat conditions in both breeding and contranuptial areas; availability of food resources; competition in foraging environment; predation pressure; human disturbances (Skagen 2006, Burger *et al.* 2007, IUCN 2019).

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