

Field identification and new site records of Chapada Flycatcher *Suiriri islerorum*

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Suiriri islerorum (suiriri-da-Chapada) é um Tyrannidae descrito em 2001, tendo sido até então confundido com *S. affinis* (suiriri-do-cerrado). Neste trabalho são apresentadas, pela primeira vez, fotos ilustrando os caracteres diagnósticos de ambas as espécies. Após a análise dos espécimes depositados em diversas coleções científicas, bem como de registros de campo, são apresentadas nove novas localidades de ocorrência para esta espécie, que deve ser considerada endêmica do Cerrado. A sua distribuição geográfica conhecida foi consideravelmente ampliada no sudeste e sudoeste do Brasil, alcançado agora, respectivamente, o centro do estado de Minas Gerais e leste do Mato Grosso do Sul. *S. islerorum* mostrou-se significativamente mais raro que *S. affinis*, sendo necessárias investigações mais profundas sobre o status de conservação desta espécie.

Chapada Flycatcher *Suiriri islerorum* is a recently described species, specimens of which had been overlooked as Campo Suiriri *S. affinis*, to which it bears a strong morphological resemblance¹⁴. The conservation status of *S. islerorum* is unknown, it being presently known from just 12 localities across the Brazilian cerrado, reaching southern Amazonia and the east bank of the rio Madeira¹⁴. The only record outside of Brazil is from dpto. Santa Cruz, in eastern Bolivia¹⁴. Here I present new site records of *S. islerorum*, discussing the inherent conservation implications. To assist ornithologists and birdwatchers in identifying the species, I also present, for the first time, photographs depicting the diagnostic characters of *S. islerorum* and *S. affinis*.

Methods

I examined material in several Brazilian ornithological collections not listed in the type description of *S. islerorum*¹⁴: the Coleção Ornitológica do Departamento de Zoologia da Universidade Federal de Minas Gerais, Belo Horizonte (DZUFMG); Museu Nacional, Rio de Janeiro (MNRJ); Fundação Museu de Ornitologia, Goiânia (FMO); Coleção Ornitológica da Reserva Ecológica do Instituto Brasileiro de Geografia e Estatística, Brasília (IBGE); and the Coleção Ornitológica Marcelo Bagno da Universidade de Brasília, Brasília (COMB). Data concerning specimens housed in the Museu de Zoologia da Universidade de São Paulo, São Paulo (MZUSP), and Museum of Comparative Zoology, Harvard, (MCZ), were provided by Lemuel O. Leite and Floyd E. Hayes respectively.

The ranges of *S. islerorum* and *S. affinis* are largely restricted to the cerrado¹⁴. Thus, we might expect that the number of specimens in the museums mentioned above would express, at last broadly, the relative abundance of each taxon. To investigate the hypothesis that *S. islerorum* and *S. affinis* are not equally abundant in the cerrado, I searched for differences in the number of available

specimens of each species and the number of expected individuals if the probability of collection was the same using a Chi-square test¹³, adopting a significance level of 5%. The form *bahiae*, which could be confused with either *islerorum* or *affinis*, was not included in my analysis because its range is allopatric with the other taxa, it being restricted to the caatinga of north-east Brazil¹⁴. Because most specimens were shot, I assumed that any differences in behaviour between the species were insufficient to influence their probability of collection.

Between August 2002 and January 2004, 11 pairs of *S. islerorum* and 14 pairs of *S. affinis* were systematically studied in the Estação Ecológica de Águas Emendadas, Planaltina, Distrito Federal, Brazil. During this period I studied several attributes of the species' breeding biology, territory, habitat use, foraging behaviour and diet⁶. During the field work, I observed several morphological and behavioural traits that appear helpful in the identification of both species.

Results

New site records of *S. islerorum*

I discovered nine new localities for *S. islerorum* (Table 1), including one in Minas Gerais and two in Mato Grosso do Sul, both states from where the species was previously unknown, and one for Distrito Federal, where it was only recently recorded⁷. Parker & Rocha¹⁰, in describing the behaviour of a supposed *S. affinis* pair, stated that the birds 'occasionally lifted their wings and wagged their tails while vocalizing'. This description almost certainly refers to the wing-lifting display of *S. islerorum* and was considered as the second record of *S. islerorum* in Bolivia⁶. *S. islerorum* proved to be significantly rarer than *S. affinis* (Table 2; $\chi^2 = 37.79$; d.f. = 1; $p < 0.001$).

Table 1. New site records of *Suiriri islerorum* (localities listed from north to south).

Locality	Coordinates	Source
Aldeia do Ponto, Maranhão, Brazil	06°07'S 45°09'W	MZUSP-38172, MZUSP-38173
Cerro San Simón, dpto. Beni, Bolivia	13°36'S 62°15'W	Parker & Rocha ⁸
Fazenda Cachoeira, Flores de Goiás, Goiás, Brazil	14°18'S 46°59'W	J. B. Pinho (pers. comm.)
Planaltina, Distrito Federal, Brazil	15°32'S 47°37'W	Lopes et al. ⁵ , MNRJ-13879
Aragarças, Goiás, Brazil	15°55'S 52°15'W	MNRJ-(H?)2626 (No. partially illegible)
Fazenda Recreio, Mato Grosso do Sul, Brazil	18°30'S 54°45'W	MCZ-198598
Lagoa Santa, Minas Gerais, Brazil	19°37'S 43°55'W	MNRJ-22031, MNRJ-23309
Arapuá, Mato Grosso do Sul, Brazil	20°48'S 52°04'W	MCZ-69318
Retiro da Telha, Mato Grosso*, Brazil	Not traced	MZUSP-64110, MZUSP-64111

*Specimens collected in 1964, prior to the state partitioning into Mato Grosso and Mato Grosso do Sul.

Species identification

The easiest means of identifying both species is by vocalisations¹⁴, which are highly typical (duets of both species in digital format are available on request). The wing display during the duet, diagnostic of *S. islerorum*, is also extremely helpful as a field mark¹⁴. After early morning, *S. islerorum* is typically silent, making identification through morphological characters necessary. The small bill of *S. islerorum*, in comparison to that of *S. affinis*¹⁴, as well as the greater contrast between the ocular stripe and white chin and throat of *S. islerorum*, are generally the best field marks (Figs. 1a,b). The pale terminal fringe to the tail is broader in *S. islerorum* (Fig. 1c), but absent in *S. affinis* (Fig. 1d)¹⁴. Nevertheless, this character can be difficult to observe in the field, depending in large part on lighting conditions. Both species periodically wag their tail downward in a very diagnostic fashion, particularly on changing perch¹⁴. Such behaviour is also very helpful in distinguishing the genus *Suiriri* from similar-sized tyrant-flycatchers such as *Elaenia*, permitting identification even in poor light conditions or at long distance.

With practice, it is also possible to identify both species solely on behaviour. Whilst foraging, *S. affinis* constantly moves its head, carefully scanning adjacent foliage. *S. islerorum* generally is

static, waiting for prey, or moves in small hops, its tail slightly raised, in a very characteristic manner. My observations contrast with those presented elsewhere¹⁴, which found *S. islerorum* 'more constantly in motion' and 'more agile and acrobatic in pursuing prey'. Details concerning the foraging behaviour of both species are presented elsewhere⁶.

Discussion

All known sites for *S. islerorum* are located within the cerrado¹, corroborating its endemic status¹¹. The degree of sensitivity of *S. islerorum* to habitat disturbance is unknown, but its absence from urban areas of Brasília, where *S. affinis* is common⁶, suggests a greater sensitivity than the latter. Despite its vast range the rarity of *S. islerorum* in ornithological collections suggests that it is only locally distributed in the cerrado, which could mean that the species is of conservation concern. Given that the cerrado is among the most threatened biomes in the world, with more than 80% of its primary vegetation converted to crops and pastures^{8,9,11}, detailed investigations into the distribution, abundance and sensitivity of *S. islerorum* are imperative.

In addition to *S. islerorum*, several other cryptic species have recently been described from the Neotropics (e.g. *Cercomacra laeta*³, *C. parkeri*⁵ and *Micrastur mintoni*¹²). Just as *S. islerorum* remained undiscovered, until now, in the Distrito Federal, that part of the cerrado with the best-studied avifauna², *Cercomacra laeta* went unrecognised in the Manaus area, one of the best-sampled parts of Amazonia³. Impressive is that both *S. affinis* and *S. islerorum* were collected in Planaltina, Distrito Federal, in 1927, by the ornithologist Emilie Snethlage. Herbert Berla also collected both species, in 1942, in the Lagoa Santa region of Minas Gerais, where recently, in August 2004, rediscovered by G. M. Kirwan (pers. comm.). All these specimens are deposited in MNRJ. This fact reinforces the expectation that our knowledge of

Table 2. Number of individuals of each form of *Suiriri* in ornithological collections covered by this study.

Collection	Number of individuals			
	<i>affinis</i>	<i>islerorum</i>	<i>suiriri</i>	'bahiae'
MNRJ	16	4	11	0
COMB	10	0	0	1
DZUFMG	2	0	0	0
FMNH*	12	1	77	1
IBGE	7	0	0	0
FMO	4	0	0	0
Totals	51	5	88	2

*Data from individuals deposited in the Field Museum of Natural History, Chicago, visited by K. J. Zimmer for the description of *S. islerorum*, were obtained via FMNH⁴.

cryptic biodiversity has only reached the tip of an immense iceberg awaiting discovery³.

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Caption to plate on opposite page

Figure 1. Diagnostic characters of *Suiriri islerorum* (a, c and e) and *S. affinis* (b and d). Note the smaller bill of *S. islerorum*, as well as the presence of a pale terminal fringe to the tail (Leonardo Esteves Lopes)

