

## Rusty-collared Seedeater *Sporophila collaris* in Bahia, Brazil, with some comments on morphological variation in the species

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Em setembro de 2005, foi efetuado o primeiro registro do coleiro-do-brejo *Sporophila collaris* na Bahia, Brasil, a partir da observação de um macho representante da forma nominal no sul do estado. Este é o registro mais setentrional dessa espécie. Em museus, existem exemplares de duas fêmeas desta espécie procedentes da Bahia, mas ambas representam indivíduos do Chorão *S. leucoptera*. *S. collaris* apresenta notável variação geográfica e individual em toda sua área de distribuição. Três subespécies são geralmente reconhecidas: *S. c. collaris* do leste do Brasil até Goiás e Mato Grosso, *S. c. ochrascens* da Bolívia e norte e centro do Mato Grosso até São Paulo e *S. c. melanocephala* do nordeste da Argentina e Paraguai ao sudeste do Mato Grosso. Alguns espécimes procedentes de Minas Gerais e Rio de Janeiro existem em museus. Indivíduos com plumagem somente negra e branca foram observados em campo em Minas Gerais (e agora na Bahia). O significado dessa variação é discutido.

Rusty-collared Seedeater *Sporophila collaris* is distributed from north-central Argentina, through Paraguay and Uruguay, to south-eastern Brazil, where it is known as far north as the state of Minas Gerais<sup>6–8,10</sup>. Three subspecies are maintained by most major works (e.g. Dickinson<sup>1</sup>): the nominate form is distributed from Espírito Santo and Rio de Janeiro west to Mato Grosso and Goiás, Brazil; *ochrascens* occurs in Bolivia and north-central Mato Grosso east to São Paulo, Brazil; and *melanocephala* through north-eastern Argentina and Paraguay to south-east Mato Grosso, Brazil (e.g. at Corumbá)<sup>2,6</sup>. A fourth race, *pallida*, described by M. A. Carriker (*Proc. Acad. Nat. Sci. Philadelphia* 87: 339) from Beni (Bolivia), is now considered a synonym of *ochrascens* (despite being originally treated as a subspecies of *melanocephala*, which was then accorded specific status), following Hellmayr<sup>2</sup>.

There are no previously published records from the Brazilian state of Bahia<sup>10</sup> (J. F. Pacheco *in litt.* 2006), although there is female specimen labelled as being *collaris*, taken at the rio Paráguassú, west of Salvador, Bahia (12°45'S 40°13'W), on 17 August 1926, by E. Snethlage, held in the Museu Nacional, Rio de Janeiro (MNRJ 14385). Having examined this specimen, I am doubtful as to the identity of this bird, as it seems equally possible that it relates to White-bellied Seedeater *Sporophila leucoptera*, which is common in the relevant part of Bahia (J. F. Pacheco pers. comm.; pers. obs.); females of these two species can be difficult to separate<sup>10</sup>, but all of the female *collaris* I have examined possess a pale speculum patch, a feature not present in the Bahia specimen. There is another specimen labelled 'Bahia' in the Natural History Museum, Tring (NHM 1885.2.10.135), which was mentioned by Sharpe<sup>9</sup> under *Spermophilus hypoleuca* and was also

examined by Hellmayr<sup>2</sup>, who listed this bird as being an example of *S. leucoptera cinereola*. I concur with this reidentification, for the same rationale as the Rio specimen; the skin accords well with the ample material at hand in Tring for *S. l. cinereola*.

On 8 September 2005, during field work in north-east Brazil, I encountered a male *S. collaris* at a wet field edge just north of the town of Urandi, in extreme south-central Bahia, very close to the border with Minas Gerais. The bird was viewed for c.1 minute through a telescope before being lost to view; despite some efforts to relocate it, the individual was not seen again. The bird conformed to the basically black-and-white 'type' (from the range of nominate *collaris*) of this species, previously discussed by Kirwan *et al.*<sup>3</sup>, which is characterised by its uniform black crown, forehead, cheeks and lower mantle, with an obvious pale grey rump, black tail and wings with a white speculum, and a white bar on the median coverts. The white throat extends as a half-collar below the cheeks to the ear-coverts, but does not meet on the hindneck, and there is a broad black pectoral band on the otherwise white underparts. As previously noted, this plumage 'type' is similar in many respects, including that of bill shape/size, to that of male Wing-barred (Variable) Seedeater *Sporophila americana*<sup>3</sup>, though, strangely, Hellmayr<sup>2</sup> had remarked on the larger bill of *collaris* as being one of the chief distinguishing characters of this species vis-à-vis *americana*.

I have examined material appertaining to *S. collaris* in five museums: the Museu Nacional, Rio de Janeiro (MNRJ) (13 males and 11 females, from the following Brazilian states, Paraná, Mato Grosso, Espírito Santo and Minas Gerais), the Natural History Museum, Tring (NHM) (12 males

and 11 females, from Argentina, Paraguay and Brazil), the Field Museum of Natural History, Chicago (FMNH) (seven males and six females, from Argentina, Paraguay, Bolivia and Brazil), the National Museum of Natural History, Washington DC (USNM) (four males and four females, from Argentina and Paraguay), and the Museo Argentino de Ciencias Naturales "Bernardino Rivadavia," Buenos Aires (MACN) (in excess of 100 individuals, mainly males, all from Argentina and Paraguay). The latter institution holds only normally plumaged birds (i.e. males with a rusty collar), but Tring has four largely black-and-white 'type' males, NHM 68.6.20.55, 85.2.10.132, 95.4.1.878–879 (the first and two last-mentioned all have very faint buff coloration on the posterior underparts and uppertail-coverts), all of whose locality is not certainly known beyond 'Rio.' Another male in the same institution (NHM 95.4.1.280) has much buff coloration on the posterior underparts, the throat and neck-sides, and the rump. There are also two males in MNRJ belonging to the black-and-white 'type,' namely MNRJ 42726 and 28817, both from Minas Gerais<sup>3</sup>.

Three male specimens, also in MNRJ, all from Espírito Santo, are also meritorious of further discussion. MNRJ 14387–88 were both collected at Fazenda Santa Anna, Lagoa Juparanã, north of Linhares ( $21^{\circ}35'S$   $40^{\circ}18'W$ ), in August and September 1925, respectively, by E. Snethlage. (Coordinates for these localities are taken from Paynter & Traylor<sup>5</sup>.) They have warm buff rumps, particularly extensive in MNRJ 14388, but still much duller than a typical bird from the Pantanal of Mato Grosso, southern Brazil, e.g. MNRJ 22182. In contrast to the latter and other birds from the same region, these two also have much paler, orange-buff half-collars and lower underparts, and also possess a buffy speculum. MNRJ 28024, taken at 'Pau Gigante' (=Ibiráçu), north of Vitória ( $20^{\circ}50'S$   $40^{\circ}22'W$ ), in November 1940, by G. Dutra, is even closer to *collaris* from Minas, being much less saturated below with very few buffish feathers in the rump region, whilst the half-collar and speculum are basically as white as those of MNRJ 42726. Thus, in many respects, these three represent intermediates between the black-and-white 'type' encountered in Minas Gerais (and now Bahia) and normal-plumaged birds, e.g. from Mato Grosso (MNRJ 22170) and further south (see Figs. 1–3). Several *collaris* from Espírito Santo possess bills that are smaller and more reminiscent of individuals of *S. americana* than those from the south of the species' range, although the Minas and Bahia specimens referred to above are clearly not small-billed. Armed with this knowledge, GMK briefly sought *S. collaris* at sites in east-central Espírito Santo in October 2005, during the course of

other field work, but was unsuccessful in locating the species.

What is the significance of this variation? *S. c. ochrascens* and *S. c. melanocephala* are clearly morphologically similar, although Hellmayr<sup>2</sup> noted that males of the former differed from the latter in having rather paler neck-sides and underparts, the nuchal collar interrupted, and the uropygial band narrower and paler. He went on to note the presence of at least one intergrade specimen and, indeed, to regard *ochrascens* as a 'connecting link' between *S. c. collaris* and *S. c. melanocephala*, which had previously been regarded as a different species. Thus, as effectively noted by Hellmayr and as immediately evident to those with a sufficiently ample series to hand, there is a cline east to west in plumage saturation of the underparts. Given the presence of quite 'normal' (i.e. not basically black-and-white) *S. c. collaris* in parts of eastern Brazil, it seems that another cline might run north to south, also affecting underparts coloration, but also reflected in bill size, the colour of the rump, collar, speculum and wingbars. Additional study of these north-easternmost populations of *S. c. collaris* is clearly warranted, especially given some individuals' very close resemblance to the much more northerly ranging *S. americana*, and to validate (or not) my speculation concerning a north–south cline. Further work should also seek to more clearly elucidate the 'diagnostic' characters of *S. c. ochrascens*. As frequently noted, e.g. by Robin Restall (*in litt.* to NEOORN March 2006), *Sporophila* is an incredibly variable genus with many 'oddballs' in coloration (see e.g. Olson<sup>4</sup>), due in part to delayed plumage maturation and seasonal variation, and the present case outlined above is just one of many cases demanding further research.

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#### Captions to plates on opposite page

Figures 1–3. Ventral, dorsal and lateral views of male specimens of Rusty-collared Seedeater *Sporophila collaris* held in Museu Nacional, Rio de Janeiro, Brazil: left to right MNRJ 14387, from Espírito Santo; MNRJ 42726, from Minas Gerais; MNRJ 28024, from Espírito Santo; MNRJ 22170, from Mato Grosso; and MNRJ 14388, from Espírito Santo (Guy M. Kirwan/Museu Nacional, Rio de Janeiro)



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