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Sporophila Ruficollis

Species description:

Sporophila Ruficollis, also known as the dark-throated seedeater, is a small passerine native to Argentina, Bolivia, Brazil, Paraguay and Uruguay. Local names for the species include *Capuchino Garganta Café* and *Paraguayito*.

The *Sporophila* genus is made up of about 30 species of Neotropical birds that are small (10-12.5 cm), granivorous, and have strong bills (Pilar et al. 2010). Within *Sporophila* there is a group of eleven species known as "capuchinos" or Neotropical seedeaters, which includes *S. ruficollis.* Though the lifespan of most capuchinos is not known, *Sporophila* species are thought to be long-lived relative to their small bodies and are estimated to live seven years or more (Areta et al. 2009).

Male capuchinos are generally colorful with bold patterns, and their plumage is distinct among the different species (Pilar et al. 2010). In *S. ruficollis*, males have a gray nape and back with a dark throat (Areta et al. 2011). In adult males, the color of the belly varies from pale to dark rufous, a dark rusty brown color, and throat color

Figure 1. S. ruficollis male (left) and female (right)
Photos by Alec Earnshaw (2013)

may vary from dark rufous to black (Areta et al. 2011). Observations from the wild suggest that darker pigmentation may reflect older age as well as the individuality of the bird (Areta et al. 2011). However, male plumage color varies and in some cases may resemble a female plumage, or an immature plumage (Areta 2009). Female capuchinos are usually dull-colored and their plumage is very similar across all species (Pilar et al. 2010). The similarities between females and immature individuals in most *Sporophila* seedeaters make them extremely difficult to identify, even with the bird in hand (Areta et al 2009).

Legal Status:

The IUCN red list classifies *S. ruficollis* as a "near-threatened" species (IUCN 2013).

Ecology:

In the wild, *S. ruficollis* is described as locally uncommon to rare in tall grasses near damp areas, within marshes, and in "partially open shrubby areas" (Ridgely et al. 1989). The species is described as locally common in grasslands and savannahs, in elevations up to 1,200m (Birdlife International 2014). *S. ruficollis* is a stem-gleaner specialist, meaning it consumes seeds that are still borne on natural grass stalks. Their small, light bodies allow them to perch on larger grass stalks, hanging down to obtain the seeds (Schulenberg 2010).

Temporal fluctuations in food supply prompt many stem-gleaner specialists such as *S. ruficollis* to make seasonal migrations ranging from short to long distance (Areta 2012). Though it is known some species migrate in winter, the ecology of these migrations and their winter distribution is less well known. During the breeding season, *S. ruficollis* primarily inhabits savannas and grasslands and is a

noticeable part of diverse Neotropical grassland communities (Filloy and Bellocq 2006). Though outside of the breeding season they may live near or in marshes, when breeding in Northeast Argentina they seem to favor areas that are less marshy (Ridgely et al. 1989).

S. ruficollis can be found single or in pairs throughout the breeding season (Filloy and Bellocq 2006), but during other seasons they may be found in groups with other seedeaters (Ridgely et al. 1989). After breeding, *S. ruficollis* along with other species of capuchinos will form mixed-species flocks to migrate to and from the breeding areas. Data suggests some populations of *S. ruficollis* migrate long distances and some resident local populations remain near breeding areas during winter. (Areta 2012).

Understanding migration patterns in *Sporophila* species is challenging for a number of reasons. First, similar plumages can make it difficult to properly identify species, and several forms have little to no genetic differentiation. Second, during winter habitats are shared by many different species. Third, the birds are so small that they can't be followed with tracking devices. Vocalizations may be used to indicate origin of the birds because of the "geographic signature" they possess (Areta 2012). However, female capuchinos are not known to sing (Areta 2009) so this method of identification is only possible with males.

Natural History:

While there is little information on the natural history of *S. ruficollis*, a study in recent years found evidence of evolution in the species (Pilar et al. 2010). It appears that the female plumage color among capuchino species has been evolving

over time. To the human eye, it is difficult to tell any difference between the dull female plumage colors, especially because they are so similar between species. Humans can not see the same way that birds see, therefore our eyes may not properly assess plumage color in birds and miss information that may be biologically important (Pilar et al. 2010). It seems that there is much more to learn about the history and evolution of *S. ruficollis*.

Population Status and Trend:

The IUCN red list notes that the global population size of *S. ruficollis* has not been quantified and is therefore not known, but has been described to be somewhat common though 'patchily distributed' (IUCN 2013). The population trend is decreasing, with the population experiencing a 'moderately rapid' decline (IUCN 2013).

Current and Historic Range:

Currently, *S. ruficollis* is found in parts of Bolivia, south Brazil, Paraguay, north Uruguay and north Argentina (IUCN 2013). It is one of four species of *Sporophila* that are widely distributed in central Argentina (Filloy and Bellocq 2006). *S. ruficollis* has both a migratory population and a resident population. While some stay put year-round, many birds spend winter in the Cerrado region of Brazil or in Amazonian highlands, then head south to the grasslands of Argentina for the breeding season (Filloy and Bellocq 2006). As agricultural development greatly reduces the historic range of these grasslands, it is also reducing the range of *S. ruficollis* (Filloy and Bellocq 2006).

Threats to species and opportunities to restore abundance:

The biggest threat currently facing *S. ruficollis* is habitat loss, primarily due to agricultural development. Intensive agriculture, particularly soybean crops and large plantations of exotic Eucalyptus and Pinus trees, has been replacing the natural grasslands the species depends on (Codesido and Fraga 2009). A study found that *S. ruficollis* became less abundant with increasing agricultural intensity, and no individuals of the species were found in transects where more than 60% of the land was used for agriculture (Filloy and Bellocq 2006). This pattern may be due to decreased habitat suitability with increased land transformation. Changes in vegetation may have affected nesting success and food resources available (Filloy and Bellocq 2006). It is possible that *S. ruficollis* was unable to successfully feed on exotic seeds (Filloy and Bellocq 2006), and as a result became less abundant.

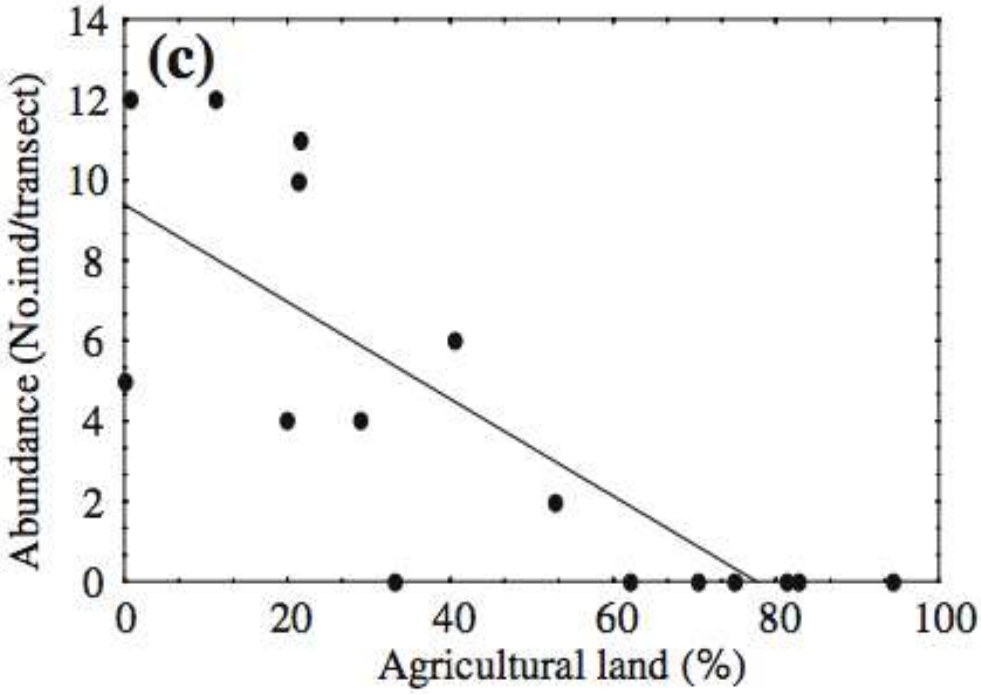

Figure 2. Abundace of S. ruficollis decreases with increasing agricultural intensity
Source: Filloy and Bellocq (2006)

S. ruficollis may be able to tolerate agriculture at lower intensities. They have been spotted in native grasses growing in roadside ditches as well as lightly to moderately grazed natural pastures, however, like their natural habitat these areas are also decreasing in number and in size (Codesido and Fraga 2009).

Preserving native grasslands may help restore abundance of *S. ruficollis* and other capuchinos affected by habitat loss. Preserved natural grasslands are thought to have supported many threatened grassland passerines for prolonged periods (Codesido and Fraga 2009), so there is reason to believe creating such preserved areas could help support these species for future periods.

Another major threat to *S. ruficollis* is the capture of wild birds for the exotic pet trade (Ridgely et al. 1989). Because of habitat loss, the birds are concentrated in a few small areas and are easily accessible to trappers (Birdlife International 2014). Monitoring *S. ruficollis* in the exotic bird trade could help preserve their populations in the wild.

Developments in Conservation:

Currently there are no conservation measures in action specifically directed at this species. However, some actions have been proposed, including conducting further research, monitoring the species in the exotic pet trade, and protecting natural grassland habitat (IUCN 2013).

Notes:

I contacted the Neotropical Bird Club who helped me get the contact info of the expert on the species, Juan Ignacio Areta. I attempted to contact Areta but never received a response. Information on the species was very limited and most if not all

was pulled from sources focusing on other species of *Sporophila*, with a small section about *S. ruficollis*. I was unable to find any information on nesting for the species, and it was difficult to get clear information on the magnitude of threats like habitat loss and exotic pet trapping for the species.

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