

Conservation of Pampas Meadowlark *Sturnella defilippii* in Uruguay

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La Loica Pampeana *Sturnella defilippii* es una especie amenazada cuya área de distribución ha sufrido una reducción drástica a consecuencia de la expansión agrícola en las Pampas del sureste de Sudamérica. Aquí se presenta un resumen de los resultados de un proyecto de investigación y conservación enfocado en esta especie y desarrollado en el norte de Uruguay. Durante la época reproductiva se confirmó la nidificación de *S. defilippii*. Esto tiene particular relevancia, ya que hasta el momento, se conocía una única otra región donde la especie se reproduce. Además las actividades educativas tuvieron un resultado muy positivo en las poblaciones locales, lo cual ayudará a la conservación de *S. defilippii* en el futuro.



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Pampas Meadowlark *Sturnella defilippii* is a globally threatened species (Vulnerable) restricted to south-eastern South America's open grasslands^{3,5}. It formerly inhabited the pampas of eastern Argentina, Uruguay and extreme southern Brazil⁴, but the range of *S. defilippii* has decreased by 90% since 1900 due to the transformation of native grasslands to agriculture⁷. In Uruguay, the species was formerly common throughout most of the country, but in the most recent decade it has been observed regularly only in south-east dpto. Salto, in the north of the country². This region is mainly used for livestock production and it is characterised by extensive tracts of natural grassland, which comprises fields that have never been tilled or developed, and harbour a high diversity of native grasses and forbs⁶. These features are probably related to the presence of *S. defilippii* in this restricted area. Until recently, the only known modern breeding grounds of *S. defilippii* were in southern Buenos Aires province, Argentina, which is the species' stronghold⁷. The need to clarify the current status of the species in Uruguay has been highlighted, as well as the need for more data on distribution, numbers, key sites and general biology⁴.

In order to obtain new information on the Uruguayan population of *S. defilippii* a field study was conducted in northern Uruguay in June and October 2003. The objectives of this project were: 1) to gather information on the status and distribution of the species in the Arerunguá region, dpto. Salto, and surrounding areas, and 2) to undertake educational activities to increase public awareness of the species' conservation problems in localities within its small range.

The project involved two field trips. Because the species tends to aggregate in large non-breeding flocks in the winter³, road surveys were conducted in June to target these flocks. I searched for *S.*

defilippii primarily in south-east dpto. Salto, but also surveyed neighbouring parts of dptos. Tacuarembó and Salto, as the presence of similar habitat suggested that the species might also inhabit these areas. This region is characterised by extensive grasslands where cattle ranching is the main economic activity. Also during the winter trip, an educational campaign targeting local people, especially children, was started. In October (the breeding season) efforts were primarily directed towards attempting to confirm that the species was breeding in the area. Thus, time was spent mostly searching for and monitoring breeding sites. Additionally, the awareness campaign continued through a series of educational activities in the core of the species' range. A summary of the results of this project follows. Specific information on the nesting biology of *S. defilippii* as well as a detailed conservation assessment of the species in Uruguay will be published elsewhere.

Status and distribution of *Sturnella defilippii*

During the winter field trip some 800 km of roads were surveyed. However, only a few meadowlarks (a single male and a small flock) were observed at two sites in the surroundings of Cerros de Vera. This suggests that the species is not numerous or that most of the population departs the area in winter, perhaps moving north to Rio Grande do Sul, Brazil.

The most interesting results were obtained during the spring field trip. First, I located several sites in the surroundings of Vera, where individuals seemed to be breeding. Within a few days, at least three different breeding groups had been identified and a total of seven nests found. The sizes of all these groups were estimated (N=5, range: 3–25 pairs) by counting all breeding pairs. According to these estimations, the minimum size of the

breeding population of *S. defilippii* in the Arerunguá area is 78–90 pairs. I obtained information on the species' breeding biology, as well as vegetation samples from the breeding sites. At two other sites where no nests were found, the species' behaviour strongly suggested breeding. However, all confirmed and potential breeding sites were in the environs of Cerros de Vera, despite surveys of other areas.

Education campaign

Within the study area, seven rural schools (totalling 157 children) were visited during the winter trip, and posters of the species were distributed. Subsequently, additional materials were also sent to the schools, including an 'identification sheet' depicting the field differences between *S. defilippii* and the common and widespread White-browed Blackbird *S. superciliosus*, as well as colour prints of *S. defilippii* and handouts on biodiversity of the pampas. During the spring visit talks were given at the schools in Vera and Arerunguá, which are within the species' core range. Together with the school teachers, we also organised a drawing contest. Interestingly, some of the parents who attended these talks provided information on where to find the species, which eventually led me to find *S. defilippii* nests.

Printed material on *S. defilippii* was also distributed among local landowners and meetings with them were held. After learning that such a rare species was present on their lands, they expressed a will to collaborate in terms of considering management recommendations to provide the necessary conditions for the species to breed.

In sum, the educational campaign had a very positive effect in terms of increasing public awareness. Judging from both children participation during the talks and from their drawings, it was obvious that they were familiar with *S. defilippii* and other grassland specialists. A more recent visit to the area (December 2003) confirmed that local people in Vera and Arerunguá were well aware of the *S. defilippii* project (S. González pers. comm.).

Conservation implications

The most important achievements of the project were: 1) to confirm *S. defilippii* reproduction in Uruguay; 2) to obtain a minimum estimate of the breeding population; and 3) to substantially increase public awareness in the Arerunguá area. The confirmation of breeding is particularly important from a conservation standpoint, as there is only one other region in the world where the species is currently known to breed.

During this project two other species of conservation concern, Bearded Tachuri *Polystictus*

pectoralis and Chestnut Seedeater *Sporophila cinnamomea*, were found in the environs of Cerros de Vera. Additional observations indicated that the area is also the non-breeding grounds for austral and Nearctic long-distance migrants, such as Chocolate-vented Tyrant *Neoxolmis rufiventris*, American Golden Plover *Pluvialis dominica*, Tawny-throated Dotterel *Oreopholus ruficollis* and Upland Sandpiper *Bartramia longicauda*. These findings provide further support for the El Tapado Important Bird Area (within which Cerros de Vera is situated), which had previously been identified on the sole basis of the presence of *S. defilippii*¹. Interestingly, this area represents a conservation priority for biota other than birds. For instance, one of only two remaining Uruguayan populations of the threatened Pampas Deer *Ozotoceros bezoarticus* occurs in this area.

Future activities

A research team from the Instituto de Investigaciones Biológicas Clemente Estable (Montevideo) has been studying Pampas Deer in the Cerros de Vera area for several years. Together with them, further education and research activities are being planned. In the case of *S. defilippii* it is very important to determine the species' ecological requirements, as well as to undertake genetic studies. The latter should provide insights into the genetic structure of this small and isolated population.

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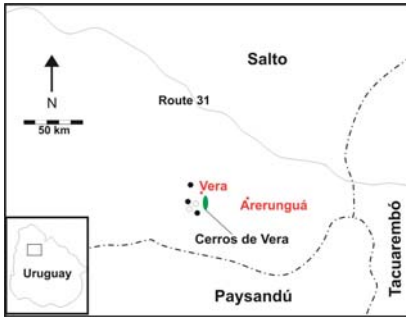


Figure 1. Study area. Circles represent the location of confirmed (filled) and potential (open) breeding sites.



Figure 2. Pampas Meadowlark *Sturnella defilippii* habitat in south-eastern dpto. Salto (Adrián B. Azpiroz)



Figures 3–5. Pampas Meadowlark *Sturnella defilippii* male, nest, and chick (Adrián B. Azpiroz)



Figures 6–9. Educational activities at Vera town school (Adrián B. Azpiroz)

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