

Notas Breves

POPULATION SIZE, PHENOLOGY AND HABITAT PREFERENCES OF LITTLE BUSTARD *TETRAX TETRAX* IN AN ISOLATED AREA OF THE NORTHWESTERN IBERIAN PENINSULA

TAMAÑO POBLACIONAL, FENOLOGÍA Y PREFERENCIAS DE HÁBITAT DEL SISÓN COMÚN *TETRAX TETRAX* EN UN ÁREA MARGINAL DEL NOROESTE DE LA PENÍNSULA IBÉRICA

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The main summer populations of Little Bustard in Galicia occur in the districts of A Limia, Ourense (Villarino *et al.*, 2002) and Terrachá, Lugo (Barcena *et al.*, 1987). These two populations are the only ones on the Iberian Peninsula within the Eurosiberian region. Data on these marginal populations are scarce. In this note, updated data is given on population size, phenology and habitat preferences at the second of these populations.

The study area is in the central part of the Terrachá district at an altitude of approximately 400 m. The climate is subhumid Mediterranean with a Central European tendency. The absolute maximum temperature is 31.9 °C in August and the minimum is -5.7 °C in January. Annual precipitation ranges between 800 and 1000 mm, with a risk of frost for 6 to 8 months. It is an arable and livestock farming area, where forage crops predominate, chiefly *Lolium multiflorum*, rotated with maize and other minor crops.

The phenology of the Little Bustards in the area has been established on the basis of observations made in 1992-2004. Post-breeding flocking was reviewed on the basis of those data. Eight weekly visits were conducted from 17 May to 4 July 2004. On each visit, three teams of observers, each consisting of two people, covered the study area, noting any bustard sightings

on a map and distinguishing, when possible, sex, age, activity and flock composition, as well as crop type (pasture or maize) and height (low: 0-15 cm., medium-low: 16-30 cm., medium-high: 31-50cm. and high: >50 cm.).

No Little Bustards were sighted in the second half of April. The earliest sighting occurred on 4 May 2002. Sightings in the first and second halves of May were 8 and 20 respectively. Flocks were sighted in the first half of July (10 on 10.7.2003). Groups of under 10 individuals were seen throughout the summer. The maximum number of Little Bustards recorded in post-breeding flocks was 74 on 28 September 2003 in two groups of 42 and 19. The largest flocks consisted of 57 birds sighted on two dates: 13 September and 6 October 2003. The latest sightings occurred on 24 October 2001 and 24 October 2004. Hence, in the study area the species behaves as a summer and postbreeding migrant, as in A Limia, Ourense (Villarino *et al.*, 2002), a large part of France and the east of its distribution range (Cramp & Simons, 1980; Garcia de la Morena *et al.*, 2003).

The number of calling males during the sampling period in 2004 ranged between a minimum of 1 and a maximum of 17. The total number of individuals, including females, juveniles and non-breeders, in this period was

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35. Despite many sightings of displaying males, breeding could not be confirmed in the study area

Calling males were sighted more often in grassland and meadows with grass under 30 cm. tall (Fig. 1). Significant differences for ca-

lling males were found between meadows and maize fields in accordance with the above-mentioned categories (low, medium-low, medium-high and high), ($\chi^2 = 8.11, gl = 3, P < 0.05$). Also, all classes of Little Bustards (calling males, females and/or juveniles) were sighted

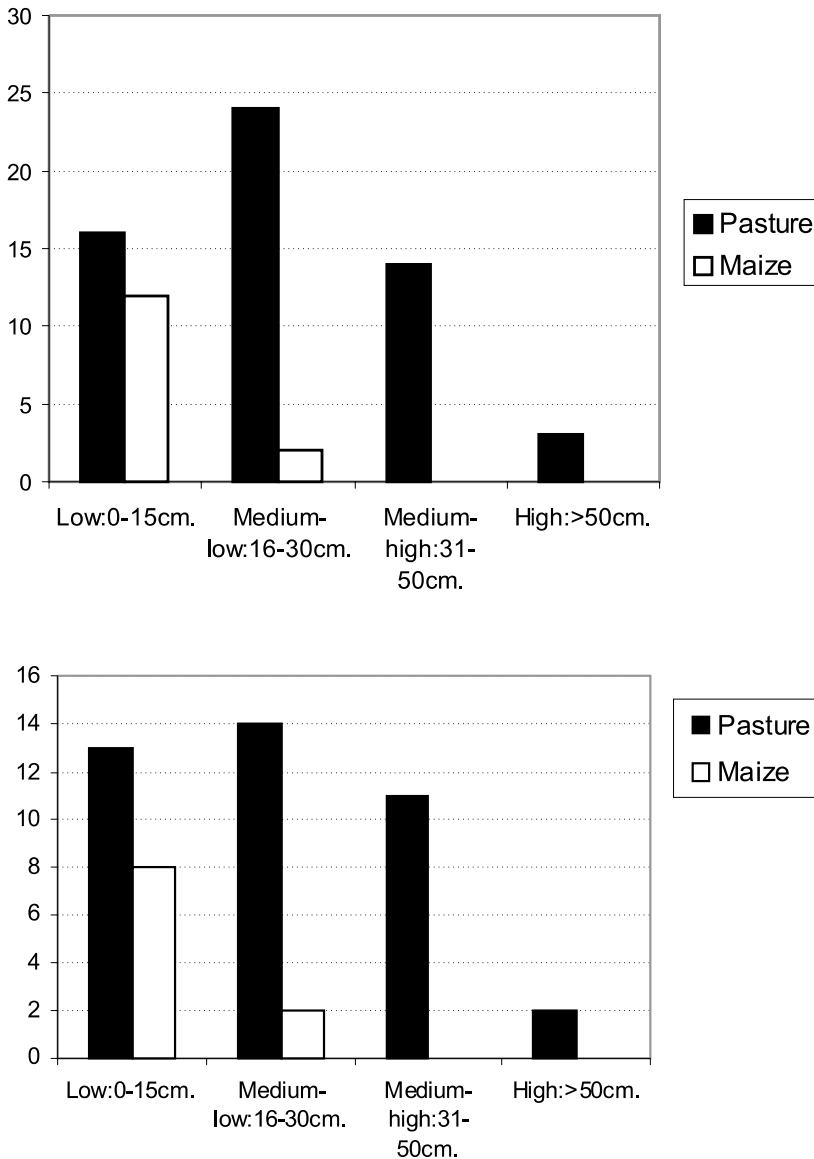


FIG. 1.—Frequency of sightings in the two crop types at different heights. Above: all the individuals (males, females and/or juveniles). Below: Only singing males. [Frecuencia de las observaciones en los tipos de cultivo en diferentes clases de altura. Arriba: todos los individuos (machos, hembras y/o juveniles). Abajo: Machos cantores.]

more often in grassland under 30 cm. ($\chi^2 = 16.02$, $gl = 3$, $P < 0.01$). These results indicate that maize fields are less frequented by Little Bustards. This is attributed mainly to two factors: 1. regardless of the kind of field, in the early stages of the maize cycle, there is no vegetation cover in maize fields due to tilling and herbicide use prior to sowing; 2) in the later stages, plant height is above species' requirements. These arguments concur with Martínez (1994 and 1998) regarding the importance of vegetation height and its decisive effect on two of the Little Bustard's basic habitat requirements, i.e. cover and visibility.

There has been an increase in forage maize under cultivation in the study area in recent years. The future of maize appears to be unpredictable given the new guidelines on the Common Agricultural Policy (López Iglesias *et al.*, *pers. obs.*). Bearing in mind the low usable agricultural area (UAA) of holdings in Galicia (Fernández, 2002), an increase in the amount of land under maize at the expense of pasture land could have a deleterious effect on the Little Bustard. The presence of Little Bustards in Terrachá is closely associated with the survival of dairy farming, but conserving the species would necessitate extending mixed arable and livestock farming, increasing the usable agricultural area (UAA) of holdings, and adopting agro-environmental measures especially devised for Little Bustards.

RESUMEN.—*La población de Sisón Común Tetrax tetrax que habita la comarca de Terrachá (Lugo NO de España) durante el periodo reproductor, ocupa principalmente pastizales y maizales cultivados de forma intensiva. Se trata de una de las dos únicas poblaciones ibéricas de Sisón que crían en la región Eurosiberiana. Los primeros individuos llegan entre la primera y la penúltima semana de mayo. Las últimas observaciones se concentran en la segunda quincena de octubre. Una prospección intensiva del área de estudio durante la temporada reproductora de 2004 permitió la detección de un máximo de 17 machos cantores. El canto de los machos se desarrolla, principalmente, en parcelas de*

pradería artificial con una altura inferior a 30 cm. Según nuestros resultados el Sisón utiliza más las praderías que los maizales. La actual tendencia al incremento de la superficie dedicada a maíz se muestra claramente negativa para la especie y como su supervivencia en Terrachá está asociada al mantenimiento de las prácticas agroganaderas, sería deseable la adopción de medidas que permitan compatibilizar producción y conservación.



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