



Project *TytoTagus* Newsletter



Photo: Inês Roque

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TytoTagus renewed in 2008: B&B CL/ UE Protocol

The *TytoTagus* Project came into a new stage, thanks to the protocol concluded between Companhia das Lezírias, S.A. and the University of Évora, under the European Union Portuguese presidency initiative *Business and Biodiversity*.

This protocol includes *TytoTagus* and two other research projects in ornithology, lasting for a five years period, from 2008 to 2012.

In 2006-2007 the *TytoTagus* project was funded by Ripidurable (www.ripidurable.eu), enabling the implementation of some methodologies and producing some preliminary results.

However, in order to achieve the project goals we need to follow Barn Owls in dispersion: thanks to the recent support, conventional telemetry will be implemented in 2009.

Throughout this first Newsletter, which marks the *TytoTagus* turnover, you will find information about last year's activities, as well as some leads for what we hope will be a well successful future for the Barn Owl populations in the Tagus Valley. ■

Spreading the Project: **World Owl Conference 2007**

LabOr has invested on a strong diffusion component for the *TytoTagus* Project, through several publications and attendances at national and international events.

At the end of 2007 (October 31 to November 4), the project was present in a world Conference, exclusively dedicated to research on nocturnal birds of prey - The World

Owl Conference 2007- which took place in The Netherlands.

We were able to set up several contacts both at individual and institutional level. Changing experiences among researchers is always an enriching process and supporter of potential partnerships.

Because of the World Owl Conference 2007, a notice about the *TytoTagus* was published on the Barn Owl Trust Newsletter "Feedback", (www.barnowltrust.org.uk) together with several other projects, all having a focus on Barn Owls conservation. ■

The World Owl Conference 2007 sessions took place at the Conference Centre Martini Plaza, in Groningen.

Photo: Inês Roque



Preliminary Results 2006-2007

■ ■ ■ Breeding

Table 1 Barn Owls reproduction records for the years 2006 and 2007 at the Tagus Valley

	2006	2007
	Early April	End of February
<i>1st clutches</i>		
<i>Number of nests</i>	10	23
<i>Productivity</i> <i>(Mean number of fledging juveniles)</i>	3,2 juv/nest (2-5)	4,5 juv/nest (2-8)
<i>2nd clutches</i>	0	2 (4,5 juv./nest)

"In spite of the one month's speed up in breeding season compared to 2006 records, we needed to extend fieldwork (...). It's important to highlight the 2007 high productivity."

*Tyto*Tagus field works began on March 14, with the support of Professor Luis Filipe Ferreira, from 'Escola Superior Agrária de Santarém'. On 2006 the nest inspection last until August 1.

In 2007, data collecting on the breeding activities of Barn Owls was carried out from March 26 to August 29.

In spite of the one-month's speed up in breeding season compared to 2006 records, we needed to

extend fieldwork, because of the increased number of nests with great time gaps among them.

For the same reason, the ringing period needed to be postponed.

It is important to highlight the 2007 high productivity (4.5 juveniles per nest), with second clutches records, also very productive (see Tab 1). ■

■ ■ ■ Ringing and Recaptures

Table 2 Ringing records and survey data of Barn Owls in the Tagus Valley in 2006 and 2007.

	2006	2007
	<i>Number of ringed owls</i>	32 juv
Recaptures:		
<i>Road kill mortality transects</i>	2 juv	2 juv
<i>Nocturnal surveys</i>	-	10 juv.



Barn Owl juvenile about to be ringed. In this project, in addition to metal rings (assigned by the National Ringing Centre- ICNB) we use coloured rings. Each owl has an individual code for further identification.

Photo:
Ana Marques

At this stage of the project, ringing birds with coloured rings is important for later visual recaptures of the marked owls.

Recaptures are carried out through two types of transects: road kill monitoring throughout national roads and nocturnal surveys at Ponta da Erva (Tagus Estuary).

It was already possible to recover rings through shared information by the ICNB, as well from non-systematic sightings, such as the visual recapture of a female ringed in 2006 that in 2007 breed in a place close to its nest of origin.

At the Estuary transects we recorded in 2007, 10 juveniles, all from nests located at 10-25Km from Ponta da Erva. ■



Ana Marques debuts in Barn Owl ringing. It is very important to follow every security rule, so the monitoring is severe.

Photo:
Faisca

■ ■ ■ Road Kill Monitoring Transects

Transects for road kill monitoring can also indicate possible locations of new territories (through special fluctuation in road kill at the time of juveniles' emancipation) or some features of the species phenology.

In Chart 1, we can see the intra and inter-annual fluctuations of Barn Owl road kill (and of nocturnal birds of prey in general) between the months of August and December for the years of 2006 and 2007, in a transect of 28km, more or less parallel to the River Sorraia (Coruche).

The great mortality peak (indicating the beginning of the dispersion period) in 2006 occurred in September and the lowest value in early November.

On the other hand, in 2007 the highest value recorded occurred in mid September, c. one month earlier than in 2006, therefore suggesting that the peak probably occurred between July and August. This observation is consistent with the one month' speed up of the 2007 breeding season. ■

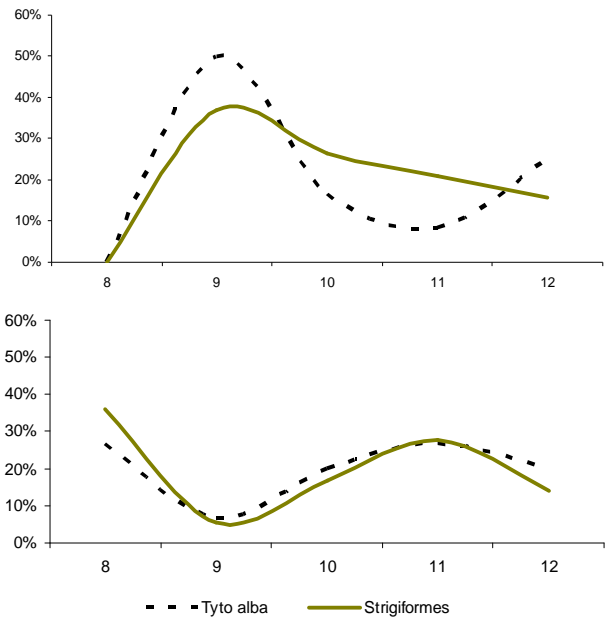


Chart 1. Temporal fluctuations of road kill induced mortality for Barn Owls (*Tyto alba*) and for all nocturnal birds of prey (Strigiformes) from August to December 2006 (top) and 2007 (bottom) along the Sorraia transect (Coruche).

■ ■ ■ Owls surveys at Ponta da Erva (Tagus Estuary)

During 2007, a survey program of Barn Owls began at the Tagus Estuary.

Weekly nocturnal surveys were conducted at Ponta da Erva (where a very high number of owls is detected during the post-natal dispersion), with the support of Companhia das Lezírias S.A.

In the night of August 8, we recorded the lowest number of owls (10 birds throughout 18.5km). However, in August 29 106 birds were recorded in a 26.6km route.

Nocturnal transects are also used to make visual recaptures of ringed owls. Coloured rings, providing

an individual code, allow us to identify the owl's place of origin.

During these transects, 10 owls were recovered, all from nests located in CTA, the 'Firing Range of Alcochete' from Portuguese Air force. ■



It is important to bring up Eng. Livia's (from Companhia das Lezírias) special dedication to TytoTagus: she was the usual driver during our nocturnal adventures, whose enthusiasm contaminated all team

Photo: Ana Marques

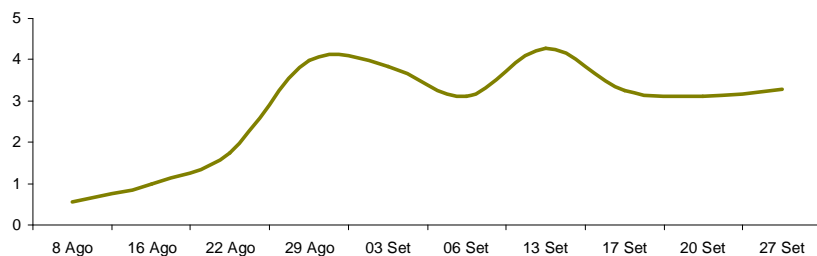


Chart 2: Temporal fluctuation of Kilometric Abundance Index for Barn Owls at Tagus Estuary nocturnal transects, between the months of August and September of 2007.

National & International Cooperation

“Recently, contacts with UK institutions were set on, so that new partnerships could happen on the scope of Barn Owl conservation.”

During the year of 2007, the *TytoTagus* project got into association with Prof. Margarida Santos-Reis’ research team from the Faculty of Sciences (University of Lisbon), helping in the capture and ringing of Barn Owls for a project linked with road kill mortality on highways.

Since 2007, *TytoTagus* has collaborated with Prof. Alexandre Roulin’s team from the University of Lausanne, sending biological samples for a study that aims to investigate the genetics foundations of colour polymorphism of Barn Owl plumage. In 2008, that collaboration will go on.

Recently, contacts with UK institutions were set, so that new partnerships could happen on the scope of Barn Owl conservation, which will include several actions such as the welcome of European volunteers to join the fieldwork. ■

About LabOr...

MISSION & GOALS:

The LabOr, Laboratory of Ornithology is part of the Department of Biology of the University of Évora (UE) and is included in the Mediterranean Ecosystems and Landscapes Research Group of the Institute of Mediterranean Agricultural and Environmental Sciences (ICAM) (www.icam.uevora.pt).

This institutional background induces LabOr to undertake scientific & educational actions and services in the areas of Ornithology and Conservation Biology.

Major goals of the LabOr include:

1. R&TD projects and services
2. Teaching and training activities conducted at the undergraduate and graduate levels (including master and doctoral thesis)
3. Short plans carried out in 1st and 2nd Cycle Courses according to the Bologna Process
4. Diffusion of scientific activities regarding the study of birds
5. Production of educational outreach elements ■

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