

# Corridors for the lesser kestrel (*Falco naumanni*). Generating biodiversity

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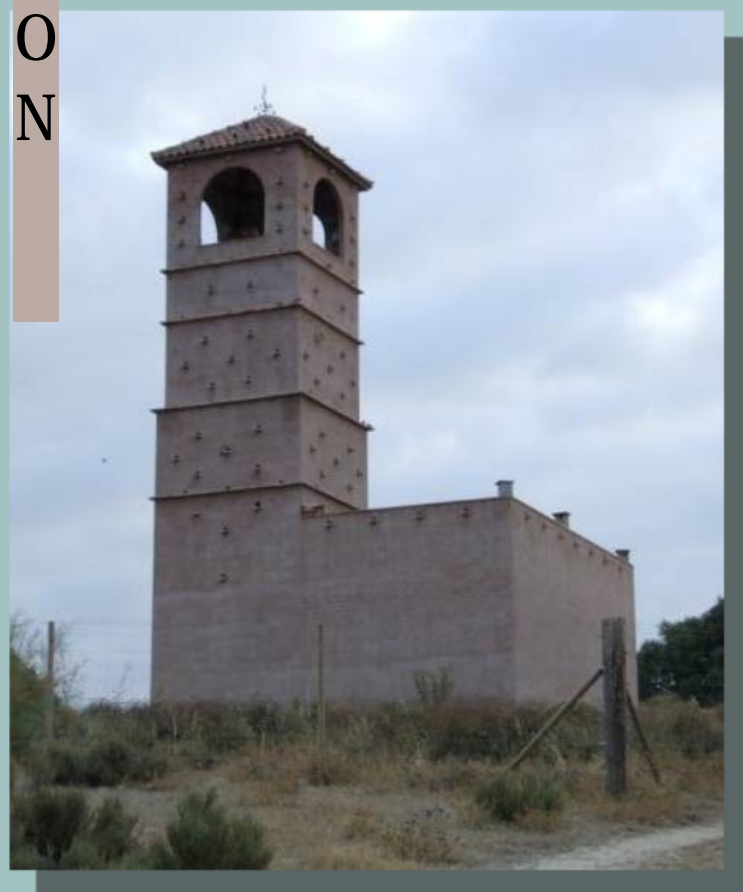
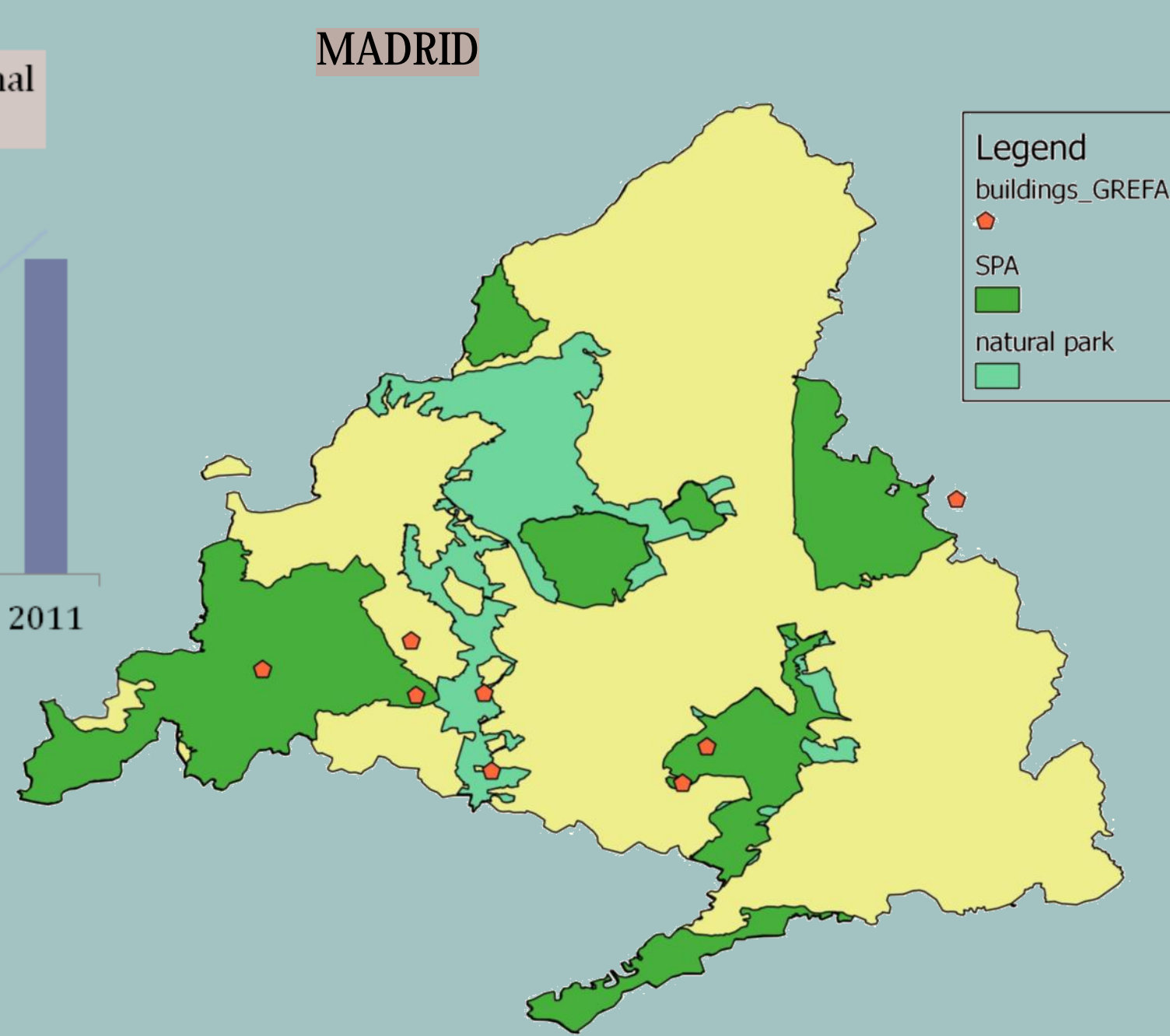
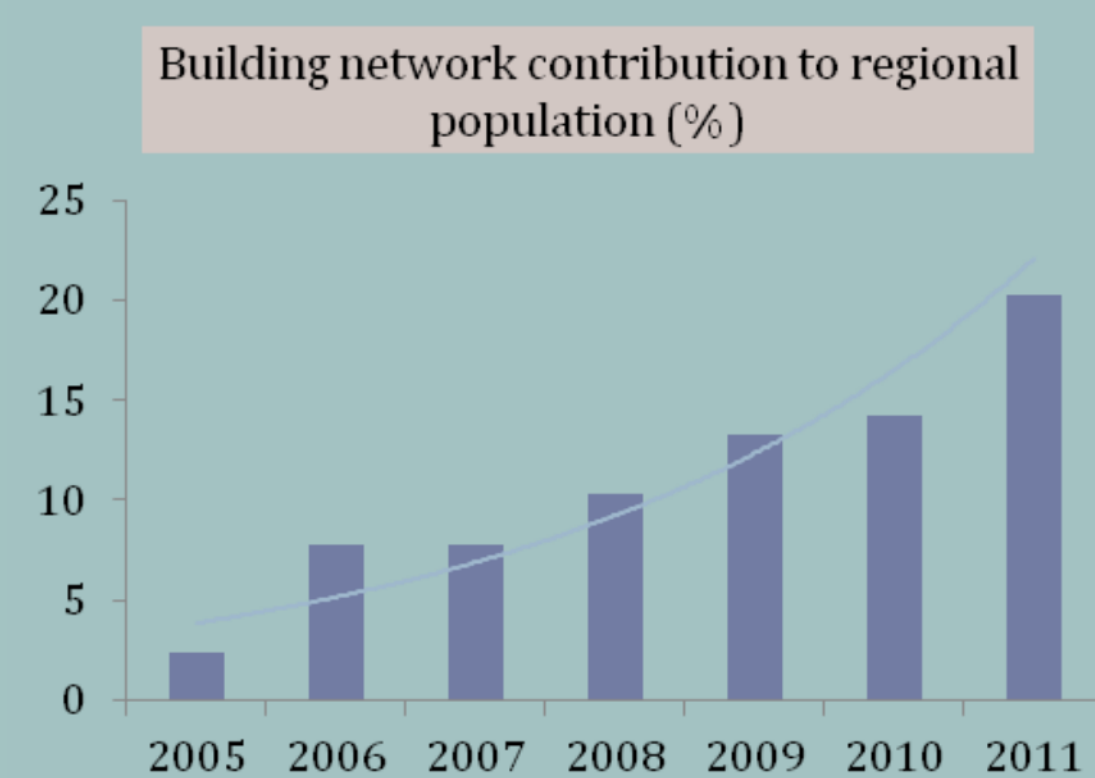
## INTRODUCTION

The lesser kestrel (*Falco naumanni*) is a small, colonial, phylopatric, insectivorous falcon (Cramp & Simons, 1980). It has shown one major population declines in its western breeding range, and has disappeared from countries where it breed until recently (Biber 1996). The Spanish population was estimated in 100.000 breeding pairs in the middle of the XX and decreased drastically until 5.000 in the 80s (Gonzalez y Merino, 1990).

The population has suffered a slow recovery and in 2.000 the population was estimated in 12.000 pairs (Atienza et al, 2001). Nationwide is considered "of special interest". The principal threats for the species are habitat loss, both in breeding areas and wintering quarters, reduction of prey availability, due to the use of pesticides, and loss of nest sites (Biber 1996).

GREFA, a national NGO founded in 1981 decided to take an active part in the recovery of the species and started to work to increase nesting availability and reintroducing individuals, by means of captive breeding, in areas where the species had disappeared. We are aware that the Iberian population of the species can only be recovered by taking actions on feeding and nesting habitats. Therefore creating colonies is the main objective pursued by GREFA for years. The presence of a network of colonies provides a higher capacity to respond to stochastic events, such as the destruction of roofs or holes.

REINTRODUCTION



"PRIMILLAR"

## METHODOLOGY

The first step is to localize all the existing colonies along the main axis. Afterwards some considerations need to be made: Evaluation of the building where the birds are breeding: conservation, nest availability, etc. Study of the foraging area and prey availability. Locate the nearest colonies and distance between them. The number of pairs in each colony should be, at least, estimated look for possible substrate for new colonies in between the preexistent if necessary.

This project is based on two work lines: 1) captive breeding to reintroduce the born individuals; and 2) installing nest-boxes to create large colonies.

The main objective of the project is to maintain and, if necessary, to create lesser kestrel colonies all over the Spanish territory so communication is possible between them making possible the genetic flow. These actions may concentrate along the six great roads that cross the Spanish territory. Following this roads we will define three axis. These axis run N to S; NW to SE and NE to SW. (Fig) The main actions we are developing are:

1. Species management by studying and monitoring current colonies.
2. Captive breeding and reintroducing chicks in towers specifically suited for hacking method.
3. Conditioning of silos and others buildings to promote colonization.
4. Habitat improvement through agreements with farmers and local administrations.

The silos have the optimal conditions to host large colonies of lesser kestrel. This conditions are the possibility to install many nest boxes, the height of these buildings and their location close to foraging areas. The control of these actions is based on identifying colonization success and marking individuals of these new colonies to analyze the movements between colonies.

TYPE OF SILOS



## RESULTS

### Nest-boxes installation occupancy results (only in silos)

Since 2013 we have developed more than 40 actions in silos, towers and others structures. We installed more than 2000 nest-boxes and released more than 2000 chicks in Madrid, Extremadura, Castilla-La Mancha, Andalucía and Castilla y León.

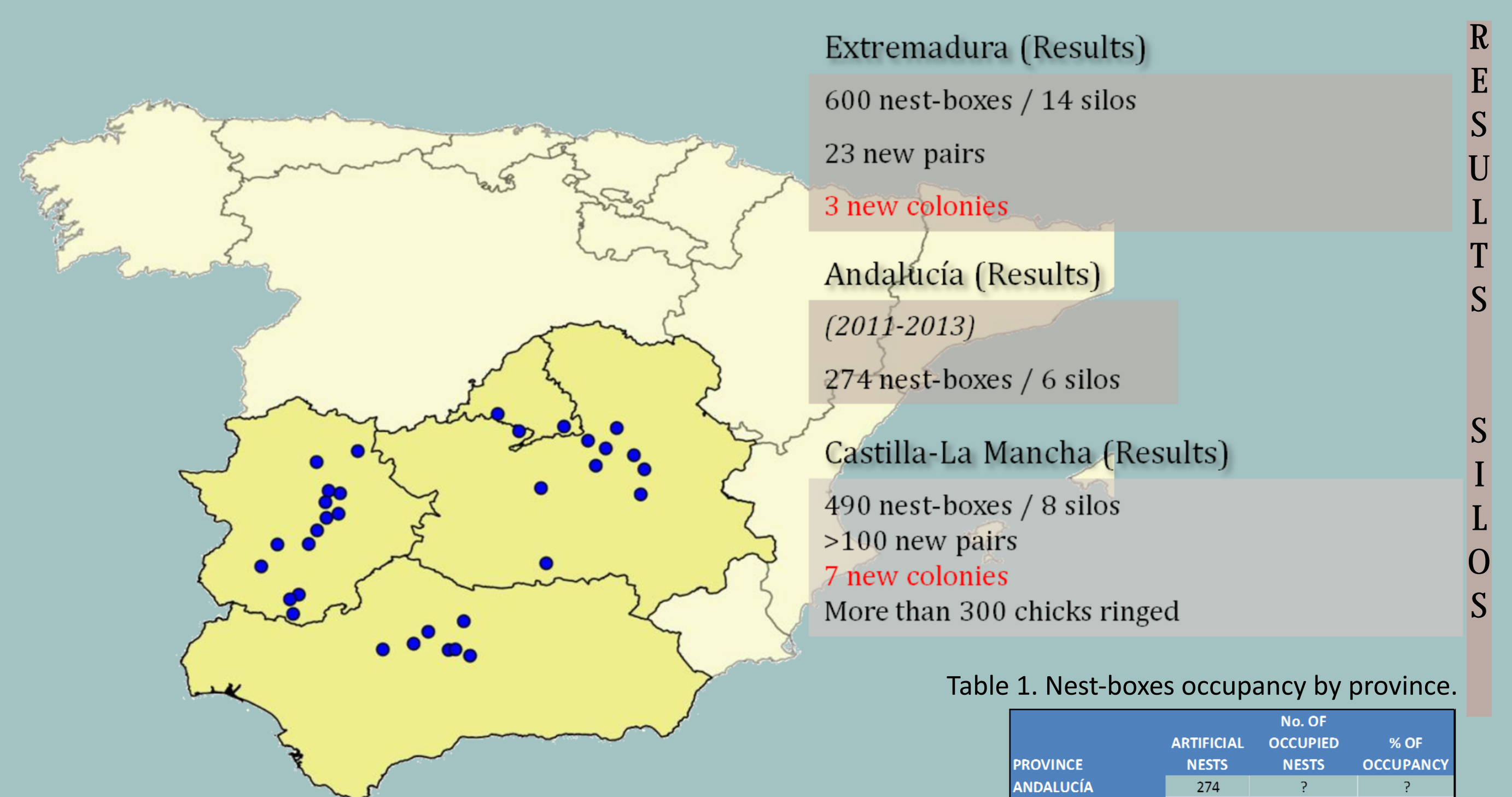


Looking at the percentage of occupancy (Table 1) we see that is not similar for all the communities where actions have been carried out. These places present a non so low density of lesser kestrel, the recolonization process seem to be kind of slow but possible.

We have seen a satisfactory occupation success with 24% of the adapted structures being occupied by the species, and becoming colonies with high occupancy (with an average of 30 pairs per colony). Furthermore, the presence of others species, such as common kestrel, barn owl, tawny owl, swifts and bats is common in these silos.

### Reintroduction programs results

All the artificial colonies have worked out well until today. Some of them have recruited wild birds since the first year of construction. The older ones are now independent colonies that don't need chicks to be reintroduced anymore. In Madrid more than 80 new breeding pairs are now located in 6 new colonies, that represents the 22,5% of the local population.



RESULTS  
SILOS

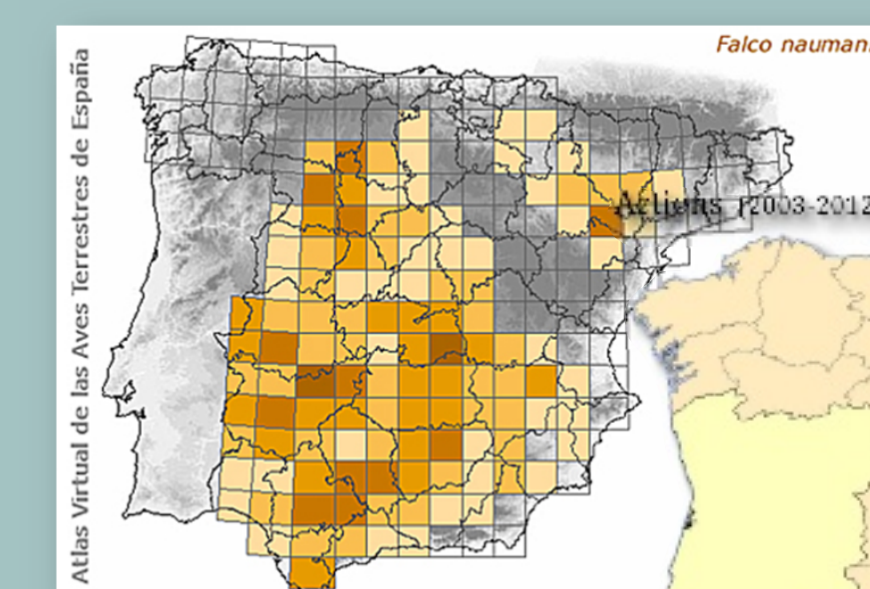
## CONCLUSIONS

Providing lesser kestrels with nesting substrate implies almost in every case an increase of the number of breeding pairs. Recolonization of new prepared places it's difficult and is maybe still early for extracting conclusions about recolonization and population dynamics because we get less ringing recovery data.

The North and Northeast section of the Iberian Peninsula are considered the priority in the project. The actions along the NE axis will try to reconnect the population of Catalonia and Aragon, that are now isolated. The big hole that exists between populations in this area may make necessary the use of reintroduction in some points as natural recolonization seem to be difficult. Therefore in 2013 has started a new reintroduction project in two places of Lleida (Catalonia).



TYPE OF NEST-BOXES



CORRIDORS

## BIBLIOGRAPHY

- Atienza, J. C., Banda, E. & Cotorro, M. 2001. Estado actual de la población de Cernícalo Primilla (*Falco naumanni*) en España y de las medidas llevadas a cabo para su conservación. En: Garcés, J. F. & Cotorro, M: *Biología y conservación del Cernícalo Primilla*, pp. 141 •2d158. Consejería de Medio Ambiente, Comunidad de Madrid y GREFA. Madrid.
- Cramp, S. & Simmons, K.E.L. 1980. *The Birds of the Western Palearctic*, Vol. 2. Oxford University Press, Oxford.
- González, J.L. y M. Merino (eds.) (1990): *El cernícalo primilla en la Península Ibérica*. ICONA. Madrid.
- Biber, J.P. (1996). International action plan for the Lesser Kestrel (*Falco naumanni*). En Heredia, B., Rose, L. And Painter, (M. Eds): *Globally Threatened Birds in Europe*, pp 191203. Cuoncil of Europe, Strasbourg.