

STUDY OF THE FIXATION OF BIRDS OF PREY POPULATIONS IN AGRICULTURAL TERRITORIES EQUIPPED WITH NEST BOXES FOR THE PROMOTION OF BIOLOGICAL CONTROL OF COMMON VOLE (*Microtus arvalis*) POPULATION OUTBREAKS

Cuéllar C. (a), Bascones M.(a), González P.(a) and Garcés F. (a)

(a) Grupo de Rehabilitación de la Fauna Autóctona y su Hábitat (GREFA). // Apartado de correos nº 11, 28220 Majadahonda, Madrid, Spain. // carlos@grefa.org // www.grefa.org

CONTEXT

"Biological Pest Control of Common vole" is a project developed by GREFA in Castilla y León (Northwest of Spain) since 2009. Thousands of nest boxes have been installed for providing breeding sites to barn owl (*Tyto alba*), little owl (*Athene noctua*) and common kestrel (*Falco tinnunculus*); they are annually monitored by our team. Collaboration of national, regional and provincial governments has been decisive. Local farmers from the study areas cooperate and recognize the project as an useful way for common voles pest control.

OBJETIVES

The objectives are to demonstrate the permanence of the raptors in the study areas and to increase the knowledge about their interactions, movements and dispersion.

STUDY PERIOD

Ringling period: 2018-2022
Recapture of raptors and rings check:
December 2021- July 2022

STUDY AREA

Provinces of Segovia, Burgos, Ávila, Palencia y Valladolid. Castilla y León (SPAIN).

METHODOLOGY

Capture of adults and chicks during winter (2021) and the breeding season (2022) in their nest boxes. They are tagged with metallic official rings in case they don't have one. If they do, they are read.

RESULTS

Number of specimens ringed in the period Dec 2021-Jul 2022 according to species and age

	Adult	Chick	Total
<i>Falco tinnunculus</i>	8	0	8
<i>Tyto alba</i>	25	38	63
<i>Athene noctua</i>	10	25	35
Total	43	63	106

Number of specimens recaptured in the period Dec 2021 - Jul 2022 according to species and ringing year

	2018	2019	2020	2021
<i>Falco tinnunculus</i>	-	1	-	-
<i>Tyto alba</i>	1	-	2	10
<i>Athene noctua</i>	-	-	-	10
Total	1	1	2	20

Age Group of recaptured birds when they were ringed

Species / Age Group	Adult	Chick	Total
<i>Falco tinnunculus</i>	-	1	1
<i>Tyto alba</i>	9	4	13
<i>Athene noctua</i>	8	2	10

CONCLUSIONS

Bird ringing has allowed us to demonstrate that these raptors have fixed in our study areas, which is an incremental contribution towards prevention and control of vole outbreaks.

Recapturing breeding pairs during monitoring work of nest boxes is necessary to identify specimens previously ringed. Both adults and chicks of this raptors have survived and established in all the nest boxes territories.



Ringling an adult of *Falco tinnunculus*



Ringling a *Athene noctua* chick



Ringling a chick of *Tyto alba*



Nest box monitoring in typical agrarian landscape



This work has the necessary authorizations issued by the Regional Government of Castilla y León.

With the collaboration of:

