

Gestión de ZEPA urbanas en Extremadura

Management of Urban SPAs
in Extremadura for the conservation
of Lesser kestrel (*Falco naumanni*)

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INFORME PROYECTO LIFE

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After-LIFE Conservation Plan.

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Post-LIFE Conservation Plan
LIFE-ZEPAURBAN
MANAGEMENT OF URBAN SPAs IN EXTREMADURA
LIFE 15NAT/ES001016



1. INTRODUCTION

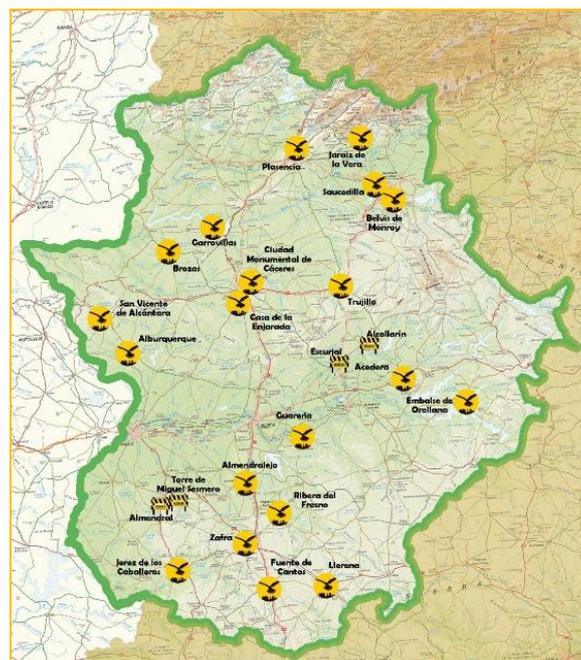
1.1 PROJECT DATA

The project "Management of urban SPAs in Extremadura", with the acronym LIFE-ZEPAURBAN, has been developed by nine public and private partners, the coordinator being the General Directorate for Sustainability of the Regional Ministry for Ecological Transition and Sustainability of the Regional Government of Extremadura. The associated beneficiaries are Dirección General de Turismo, Dirección General de Bibliotecas, Museos y Patrimonio Cultural, INTROMAC, DEMA, Asociación Terra Naturalis, LaRuinaGráfica SL, Prefabricados Extremadura 2002 SL and Fotex SL.

The project, with a total budget of 2,779,810€, of which 2,054,12€ corresponds to the European Commission contribution, began in September 2016 and ended in August 2021.

1.2 THE NETWORK OF URBAN SPAS

These Special Protection Areas (SPAs) were declared because of the important presence of breeding pairs of lesser kestrels (*Falco naumanni*). The census carried out in 2004 estimated that there were 894 colonies in Extremadura, of which 667 were within cities or towns and only 215 were within the Natura 2000 Network, most of them in urban areas. For this reason, the then Directorate General for the Environment, in a pioneering move in Europe, decided to declare SPAs in urban areas. There are currently 19 SPAs declared for the presence of the lesser kestrel in Extremadura and another 4 are in the process of being declared.



Decree 110/2015, of 19 May, which regulates the European ecological network Natura 2000 in Extremadura, contains a Master Plan that includes specific measures for the conservation of the lesser kestrel and a specific Management Plan for the SPAs declared in the urban area.

1.3 OBJECTIVES AND ACTIONS OF THE LIFE-ZEPAURBAN PROJECT

The main objective of the project was to develop a management model for urban SPAs that would ensure the long-term conservation of the lesser kestrel, adopting effective measures to reduce or eliminate its main threats. To this end, 31 actions have been developed

Action	Name of the action
A. Preparatory actions, elaboration of management plans and/or of action plans	
A.1	Initial census of the Lesser Kestrel population in urban SPAs and roosts in Extremadura
A.2	Study and characterisation of the feeding habitat of the lesser kestrel in urban SPAs and roosts in Extremadura.
A.3	Drawing up and approval of the habitat conservation plan for the lesser kestrel in Extremadura.
A.4	Support to local councils for the development of urban planning regulations
A.5	Revision of boundaries, declaration and zoning of new SPAs
A.6	Industrial manufacture of cork-mortar nesting boxes for Lesser Kestrels
A.7	Effectiveness assessment and design of census methods in urban areas
B. Purchase/lease of land an Compensatory payments to farmers and stockbreeders d/or compensation payments for use rights	
B.1	Compensatory payments to farmers and stockbreeders
C. Concrete conservation actions	
C.1	Adaptation of the nesting substrate in buildings of heritage value in urban SPAs in Extremadura.
C.2	Adequacy of nesting substrate in buildings managed by DGPC
C.3	Captive breeding and reinforcement of Lesser Kestrel colonies at risk of extinction
C.4	Pilot project: improvement of the quality of the feeding habitat of the lesser kestrel in urban SPAs and roosts.
D. Monitoring of the impact of the project actions	
D.1	Monitoring of the impact of the project's conservation actions on the lesser kestrel in urban SPAs
D.2	Monitoring the socio-economic impact of the project
D.3	Indicators of project progress
D.4	Impact of the project on ecosystem functionality
E. Public awareness and dissemination of results (obligatory)	
E.1	Training workshops for construction companies - restoration of buildings in accordance with the Lesser Kestrel
E.2	International congress on kestrel kestrel conservation

Action	Name of the action
E.3	Recording and editing of video material
E.4	Project image and communication
E.5	Project dissemination material
E.6	Development of an application (app) for mobiles within the framework of the tourism product - lesser kestrel.
E.7	Awareness-raising and information campaign for the local population and schoolchildren.
E.8	Installation of webcam in lesser kestrel nests
E.9	Creation of a tourist product based on the observation and conservation of the lesser kestrel
E.10	Tourism promotion and communication of the product based on the observation and conservation of the lesser kestrel.
E.11	LIFE ZEPAURBAN replicability strategy and networking with similar projects
F. Project management	
F.1	Coordination of the project
F.2	Scientific Committee of the LIFE ZEPAURBAN project

1.4 MAIN RESULTS

The LIFE-ZEPAURBAN project has contributed to a better understanding of the biology of the species and the factors that threaten it, such as the possible incidence of malaria, which may be a key factor for the survival of the species given the high prevalence found in some of the colonies studied. With regard to feeding areas, thanks to the pilot study carried out in three colonies in which more than 82 specimens were marked with GPS transmitters, we know that the species has a high fidelity to certain hunting grounds and that these ones change throughout the breeding season. The maintenance of these plots is key to the conservation of the species. Also, thanks to the transmitters, active roosts have been located throughout the breeding season, a little known behaviour, as well as locating new post-breeding roosts.

The project has positioned itself as a benchmark in the management of nesting habitat: protocols and urban planning regulations to make building works compatible, installation of nest boxes, declaration of urban SPAs, etc. Likewise, the combination of cultural and natural heritage as a tourist resource has become a reference point for other places with lesser kestrel colonies.

Within the framework of the project, the collaboration of the administrations responsible for the conservation of the lesser kestrel, cultural heritage, agricultural policy and tourism, as well as the local councils, the local population and private companies related to construction and tourism, should be highlighted. This joint work is an example of governance which, in the case of an urban and steppe species such as the lesser kestrel, is essential for its conservation.

Despite the excellent results obtained in the censuses carried out within the framework of the project for the urban SPAs, with a population increase of 39.56%, there is great variability in the population trends between the different colonies, with 9 of them showing stability, 4 a decrease and 7 an increase. This fact, together with the fact that for Extremadura as a whole there has been a marked decrease of more than 55% in 15 years (2004-2018), makes it necessary to give continuity to some of the project's actions in order to continue working for the conservation of the species, as well as to disseminate the results of the project.

The main quantifiable results are set out below:



Database with the precise location of all breeding pairs in urban SPAs. Technical revision of the boundaries and zoning of the 19 urban SPAs.

19 SPAs with urban planning regulations that include management measures for the species (some pending final approval). Increase of 383% in the number of requests for reports on the impact on the species.

Development of a new nest box ethologically adapted to the species and with better temperature and weight conditions. Manufacture of 1000 nest boxes.

Improvement of the nesting substrate in 23 buildings in 12 SPAs, 697 adapted nest boxes, 756 outdoor nest boxes installed and 108 under cover.

Drawing up a protocol to make maintenance work on buildings compatible with the presence of L. kestrel colonies.

More than 50 people from 20 different companies trained in the correct execution of restoration work.

82 lesser kestrels marked with GPS transmitters, thanks to which the feeding areas of 3 L. kestrel colonies have been delimited and their fidelity to certain hunting areas has been determined.

Evidence of the use of roosts during the breeding season. Location of 10 post-breeding roosts in Extremadura.

Marking with satellite transmitters of 7 birds: determination of the pre- and post-breeding migratory route and wintering areas.

Diagnosis of avian malaria in 9.46% of the marked birds and identification of a new lineage never described before for the species.

Identification of a direct relationship between body condition and distance to feeding areas.

33 collaborating farms in lesser kestrel feeding areas, in which 424 ha of pastures have been improved, 35.22 ha of pastures and 51.76 ha of leguminous crops have been generated in cereal crops and 0.28 ha of beetle banks have been created.

Document with 14 recommendations for the CAP aimed at making it compatible with the conservation of the feeding habitat of the lesser kestrel.

762 breeding pairs, an increase of 39.56%.

Recovery of the Lesser Kestrel population in the San Vicente de Alcántara SPA, with 217 chicks released and 12-13 breeding pairs established.

Habitat Conservation Plan for the lesser kestrel in Extremadura (pending final approval).

300 participants and 50 speakers at the International Congress on the Conservation of the Lesser Kestrel.

14 replicable actions or measures.

Exchange of information with 30 conservation projects.

After LIFE Plan with continuation of more than 20 actions after the end of the project

Creation of an Urban Birding tourism product with 59 tour operators adhered and 69 tourism experiences developed.

Development of an App for the development of the tourist product, Catalogue of tourist experiences around the lesser kestrel (18,000 copies) and maps of routes in 5 urban SPAs (100,000 copies).

Attendance at tourism fairs to promote *Urban Birding*: 12 regional, 24 national and 19 international.

5,000 people attended the project's dissemination activities: 141 talks and presentations, 40 technical talks and round tables and 17 workshops.

36,487 visits to the project website from 146 countries. 2,248 followers on Twitter, 2,244 followers on Facebook and 219 subscribers to the YouTube channel. More than 100 news items about the project published on the website.

170,100 units of dissemination material (brochures, stickers, posters, folders, manuals etc.).

Installation of 3 webcams (2 Trujillo and 1 Almendralejo).

5,000 surveys on the social perception of the Lesser Spotted Woodpecker in urban SPAs.

2. ANALYSIS OF THE INITIAL SITUATION. SWOT ANALYSIS: WEAKNESSES, THREATS, STRENGTHS AND OPPORTUNITIES

The starting point of this post-project Plan is based on the following analysis of Weaknesses, Threats, Strengths and Opportunities, known as the SWOT analysis, detected at the end of the Project.

STRENGTHS	WEAKNESSES
<ul style="list-style-type: none"> • Collaboration between the administrations responsible for the conservation of the lesser kestrel, cultural heritage and tourism, private companies and the local population. Support from the business community (tourism) and municipalities (town councils). • Extensive knowledge and experience with the species. • Specialised and experienced partners • Established colony protection system: network of urban SPAs. • Private and public managers of the best lesser kestrel colonies in Extremadura are aware of the situation. • Detailed knowledge about the perspective of the main stakeholders involved in the conservation of the species (local population, architects, farmers, etc.). • Improved knowledge of the biology of the species and its threats (malaria, breeding roosts, traditional feeding grounds, etc.). • Replicability of the implemented measures. • Detailed mapping of the feeding areas of three studied colonies. • Database with the location of all the colonies and identification of the managers of most of them. • Habitat Conservation Plan developed. • Nest and putlog hole cover model <i>tapamechinal</i> developed and satisfactorily tested. 	<ul style="list-style-type: none"> • Difficulty in making the premises and criteria of all the sectors involved compatible and achieving integrated management. • Impossibility of working in all the lesser kestrel colonies. • Little time and budget to develop the pilot project to improve the feeding habitat. • Low sample size to be able to draw conclusions. • Methodological changes in the analysis of feeding areas. • Newly developed emitter technology. • Different pace of work by partners. • Difficulty in planning details of works until they are started. • Lack of constant scientific advice due to lack of cooperation mechanisms between scientists, managers and decision-makers. • Delays have caused some results to be obtained very late in the project or some materials have not been developed in time.

<ul style="list-style-type: none"> • Increase in nesting substrate in 23 buildings in 12 SPAs. • Protocol on the correct way to deal with actions in buildings with lesser kestrel colonies. • Trained construction companies • Recovery of the population of the San Vicente de Alcántara SPA. • Tourist product established with its valid resources and adhered companies. 	
<p>OPPORTUNITIES</p> <ul style="list-style-type: none"> • Corrective measures for renewable energy projects and the Recovery, Transformation and Resilience Plan financed by the European Union – Next Generation EU, will allow the continuity of measures or their application elsewhere. • Concern for the species at national and international level, helping to give relevance to the results of the project, as Extremadura is a reference in the work with the species. • General interest in the exchange of experiences between entities, agents and experts. • Conflicts minimised by the involvement of all the sectors involved. • Synergies between the sectors involved, business opportunities (cultural and environmental attractiveness of urban SPAs). 	<p>THREATS</p> <ul style="list-style-type: none"> • In Spain, the species is in decline, estimated at between -28 and -40% over the last 20 years. • Two judicial sentences on the Natura 2000 network have hindered the management of urban SPAs. • Changes in the management and structures of both partners and other administrations involved. • Insufficient integration of the measures developed in the rest of the sectoral plans and strategies. • Pandemic situation resulting from Covid-19. • Changes in Procurement Law and administration structure • Differences that are difficult to predict in the feeding areas of each colony. <p>In view of the SWOT analysis, the current situation is framed as a consequence of the results obtained and the context for future actions is established.</p>

3. SCOPE AND OBJECTIVES OF THE POST-LIFE CONSERVATION PLAN

3.1 OBJECTIVES

The final objective of this Plan is to contribute to the main objective of the project: to develop a management model for urban SPAs that ensures the long-term conservation of the lesser kestrel, adopting effective measures to reduce or eliminate its main threats.

The After-LIFE plan of the LIFE-ZEPAURBAN project has two main aspects, the first of which aims to give continuity to some of the actions carried out and in particular the monitoring of conservation actions in order to evaluate their impact. The second aspect concerns the dissemination of the results obtained in the project, as well as some materials that have been produced in the last phase of the project and which could not be disseminated within the framework of the project.

For this purpose, it is structured according to the specific objectives of the LIFE project:

- Objective 1. To improve the conservation and management of breeding colonies in urban SPAs.
- Objective 2. To ensure the conservation of the feeding habitats on which the urban populations of lesser kestrels depend.
- Objective 3. To raise the awareness of the local population about the conservation problems of the species and to get them involved in solving them.
- Objective 4. To develop tourism experiences based on the Lesser Kestrel as a model of sustainable economic activity at a local level.
- Objective 5. To develop a Replicability Strategy that allows the results of the project to be transmitted beyond the end of the project.

For the actions detailed in this Plan, funds will be earmarked annually by the Directorate General for Sustainability, which will establish the human and material resources required for this purpose. The DGS has sufficient structure and technical staff to assume the commitments of continuity, integrating these tasks into its normal work dynamics.

Through the Decree on Aid for Sustainable Development (Decree 129/2016, of 2 August, which establishes the regulatory bases for the granting of aid for sustainable development in Protected Areas, in breeding areas of protected species or in habitats), some of the measures developed in the LIFE project can be consolidated, mainly for the management of feeding habitat and the improvement of nesting substrates. This Decree gives priority in the granting of aid to applicants that have been collaborators or have established collaboration agreements with LIFE projects, thus favouring the continuity of the actions undertaken.

In the same way, continuity will be given to some of the measures within the framework of Decree 87/2018, of 19 June, which establishes the regulatory bases for subsidies to non-profit associations and private foundations for the development of nature conservation projects, as well as environmental education and volunteering.

The DGS will receive funding through corrective measures for renewable energy projects and the Recovery, Transformation and Resilience Plan financed by the European Union-Next Generation EU. Other financial instruments from the European Commission and the State that are compatible with the activities included in this Plan may also be used.

For their part, the other committed partners, and in particular the three Directorates-General involved, will have the necessary human and material resources and budgets at their disposal to the extent of their capacities at any given time.

All the materials acquired with funds from the LIFE-ZEPAURBAN project (telescope, photo-trapping cameras, antennas, laptops, etc.) will be used in the development of this Plan.

Funds or means from other institutions and public or private entities that wish to collaborate with the conservation of the lesser kestrel in Extremadura may also be assigned to the purposes of this Plan.

3.2 ACTIONS OF THE CONSERVATION PLAN

The following table details the actions that will be worked on over a time horizon of at least five years.

Code	Action	Objective	Responsible	Funding	Budget	Comments	Priority
1	Census of breeding colonies and roosts. The database on lesser kestrel colonies and roosts created in the project will be kept up to date.	1	DGS	Own resources and external assistance	>85,000€/year	2022 regional census is out for tender.	***
2	Monitoring of colonies where the nesting substrate has been improved. Checking occupancy and security and monitoring chicks falling. Nest to nest check and nestling ringing.	1	DGS DEMA	Own resources	-	DEMA will monitor N.S. de la Purificación and San Vicente Mártir.	***
3	Cleaning and monitoring of installed nest boxes. Install the nest boxes in stock with our own means or with third parties. Once the available stock is exhausted, new nest boxes will be purchased for installation in colonies.	1,5	DGS	Extremadura Regional Government Compensatory Next Generation	53€/installation 82€/manufacturing		**

Code	Action	Objective	Responsible	Funding	Budget	Comments	Priority
4	Continue advising local councils on measures for the conservation of urban colonies. Facilitate the updating of the Inventory of buildings of interest for the conservation of the lesser kestrel.	1,2	DGS	Own resources	-	In 2022, the Inventory will be made available to all the town councils in Extremadura with lesser kestrel colonies.	***
5	Priorities will be established for action on other buildings with colonies where it is necessary to adapt the nesting substrate. The protocol established for this purpose shall be applied.	1,5	DGS/DGPC	Own resources	-		***
6	Marketing of nesting boxes on demand.	1,5	Prefabricados DEMA DGS	Own resources	-		*
7	Realisation of new workshops for construction companies.	1	DGS	Own resources	-		**
8	Promote the study of areas outside Extremadura where prolonged stays of emitter-	1, 2, 5	DGS	Own resources	-		*

Code	Action	Objective	Responsible	Funding	Budget	Comments	Priority
	marked kestrels have been recorded.						
9	Marking of specimens with transmitters in other colonies to determine feeding and breeding areas. Sampling for malaria and heavy metals.	2	DGS	Extremadura Regional Government Compensatory Next Generation	500€/emitter GPS 1500€/satellite emitter	Planned markings in the framework of compensatory measures IA19/1378 Almaraz II.	**
10	Tracking of specimens tagged in 2021 whose issuers are still emitting.	1, 2	DGS	Own resources	-		***
11	To give continuity to and promote the implementation in the feeding zone of other urban SPAs of positive experiences in the management of grasslands, crops and boundaries.	2, 5	DGS	Compensatory Aid Order	-	Work is being done to give continuity to collaborating farms in Trujillo with compensatory averages for photovoltaic plants (IA19/1378 Almaraz II and IA 19/1248 Campo Arañuelo III).	**
12	Joint work within the framework of the working group set up with the Directorate-General for Common	2,5	DGS	Own resources	-		***

Code	Action	Objective	Responsible	Funding	Budget	Comments	Priority
	Agricultural Policy for the implementation of the 14 measures developed to make the CAP compatible with the conservation of the lesser kestrel.						
13	Release of chicks in San Vicente Mártir. Annual verification of the return rate, established pairs and born chicks.	1	DGS/DEMA	Own resources	-	In 2022, the release of around 30 born chicks at the Los Hornos centre (DGS) is committed. DEMA will be in charge of monitoring.	**
14	Awareness-raising programme on the lesser kestrel in urban SPAs and other localities, using the materials produced within the framework of the project (travelling exhibition, leaflets, children's games, etc.), and in particular those remaining in stock.	3	DGS	Own resources	Own staff Environmental Education Section	Since the end of the project until the date of sending the report, 24 lectures have been given with more than 860 attendees.	***

Code	Action	Objective	Responsible	Funding	Budget	Comments	Priority
15	Training through the Teachers and Resources Centres (CPR) for the implementation of the Didactic Unit.	3	DGS	Own resources	-	In 2022, the training course is planned to be delivered in 10 RPCs.	***
16	Maintenance of the web cams and dissemination of images obtained through the project website.	3	DGS	Own resources	-		***
18	Update and extension of the contents of the website with the information obtained after the LIFE-ZEPAURBAN project.	3,5	DGS all partners	Own resources	-		**
19	Updating and expansion of the contents of the app for mobile phones with the information obtained after the LIFE project. Incorporation of new tourist services.	4	DGT	Own resources	-		***

Code	Action	Objective	Responsible	Funding	Budget	Comments	Priority
20	Strengthen the Urban Birding tourism product. Support and training of companies and tourist agents adhering to Urban Birding. Holding of training sessions for companies interested in joining. Updating and re-edition of the Catalogue of tourist experiences. Re-edition of promotional material.	4, 5	DGT	Own resources	-		***
21	Promotion of the tourist product. Activities of guided heritage-ornithological visits will be contracted in the 5 localities. It will be promoted at general and specialised fairs, at regional, national and international level.	4, 5	DGT	Own resources and external assistance.	18,000€		***

Code	Action	Objective	Responsible	Funding	Budget	Comments	Priority
22	Once the Habitat Conservation Plan for the Lesser Kestrel in Extremadura has been approved, the measures established therein will be implemented and compliance will be ensured.	1,2,3,4,5	DGS	Extremadura Regional Government Compensatory Next Generation	20,000 €		***
23	Within the framework of the Replicability Strategy, the exchange of information and dissemination of results and contents of the project will be promoted through networking, publications, participation in conferences and congresses, social media, etc. Carrying out joint actions at national and international level.	5	DGS all partners	Own resources	-		***