

LESSER KESTREL BALKAN EXPERT WORKSHOP
Project: Better Life for Lesser Kestrel in South-East Balkans
LIFE for Lesser Kestrel LIFE19 NAT/BG/001017
Svilengrad, Bulgaria, 18-21 September 2022

ABSTRACT BOOK



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Introduction

The workshop will provide a unique opportunity to exchange experiences among people involved in studying and managing Lesser Kestrel populations across Europe. Our aim is to share information about the species conservation status in the European Range countries and to build practical know-how about effective conservation measures that can be included in national and international species action plans. A special emphasis will be put on understanding the effects of land-use, and especially pesticide use, on Lesser Kestrel prey and the birds themselves. Furthermore, we plan to exchange hands-on experiences on technical issue, like breeding, hacking and tracking techniques. And of course, we also reserve some slots for any other interesting topics that might come up!

Organising Committee:

Green Balkans, Bulgaria

Hellenic Society for the Protection of Nature, Greece

University of Thessaly – Laboratory of Ecosystem and Biodiversity Management, Greece

Collaborating partnerships:

EuroNatur, Germany

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2022

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SEPT
18-21
2022

AGENDA

Sunday 18.09.2022

Whole day	Arrival of the participants	Hotel Svilena, Svilengrad, Bulgaria
Whole day	Registration	Hotel Svilena, Svilengrad
Whole day	Uploading presentations, checking compatibility with the host software, installation of posters	Hotel Svilena, Svilengrad
20:00	Welcome dinner	Restaurant Mosta, Svilengrad

Monday 19.09.2022

08:00-9:00	Breakfast	Hotel Svilena, Svilengrad
09:00-09:15	Official opening	
09:15-09:45	Welcome speeches: <ul style="list-style-type: none">– Official representative of Municipality of Svilengrad;– Gradimir Gradev, Project manager LIFE for Lesser Kestrel LIFE19 NAT/BG/001017– Elena Miteva, Director of Historical Museum Svilengrad	
09:45-10:15	Guest lecturer: Pepe Antolín (Spain) Prototype building to naturally breed a colony of <i>Falco naumanni</i> applying new releasing techniques	
10:15-10:45	Guest lecturer: Davide Scridel & Giacomo Assandri (Italy) Potential threats posed by the wind power industry on the lesser kestrel: a continental-scale assessment	
10:45-11:15	Guest lecturer: Bourgeois Mathieu (France) The new lesser kestrel actions plan in France (2021-2030)	
11:15-11:30	Coffee break	
11:30-11:45	Press conference	
11:45-12:30	Celebration of European Green Belt Day – Opening of Great Return Exhibition. Part of European Heritage Days	The lobby of the municipal administration of Svilengrad
13:00-14:00	Lunch	Restaurant Mosta, Svilengrad
BULGARIA		
14:15-14:30	Gradimir GRADEV: Simeon Marin, Elena Kmetova-Biro: Action plan for the conservation of the Lesser Kestrel (<i>Falco naumanni</i>) in Bulgaria (2021 – 2030). Development, challenges and results	Hotel Svilena, Svilengrad
14:30-14:45	Gradimir GRADEV: The abundance and distribution of Lesser Kestrel after restoration in Bulgaria up to 2021	
14:45-15:00	Hristina KLISUROVA: PR activities in the process of the reintroduction of the Lesser kestrel as a breeding species in Bulgaria – promotion, educational initiatives, work with the media	
15:00-15:15	Stefan DIMITROV: The Nature and Cultural-Historical Heritage in the Municipality of Svilengrad	



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GREECE

15:15-15:30 | **Eleftherios KAKALIS:** A GIS – Mapping approach for assessing habitat suitability for Lesser Kestrel (*Falco naumanni*) in North Greece | Hotel Svilena, Svilengrad

15:30-15:45 | **Athanassios SFOUGARIS:** Evaluation of the Lesser Kestrel population and habitat in Kilkis area, Northern Greece

Athanassios Sfougaris, Konstantinos Vlachopoulos, Maria Makri

15:45-16:00 | **Anna KAZAZOU:** Anima rehabilitation data

Anna Kazazou & Grigorios Markakis

16:00-16:15 | **Coffee break**

REPUBLIC OF NORTH MACEDONIA

16:15-16:30 | **Emanuel LISICHANETS:** Lesser Kestrel in North Macedonia

SERBIA

16:30-16:45 | **Slobodan MARKOVIC:** Observations of Lesser kestrel (*Falco naumanni*) in Serbia in the 21st century

Slobodan Marković, Vukas Vučković, Vladan Vučković

TURKEY

16:45-17:00 | **Murat DENİZ:** Lesser Kestrel in Turkey

Murat Deniz, Nigar Aldemir, Erdem Köse

17:00-19:00 | Celebration of European Green Belt Day 2022 Presentation of results from the Plein Air and the The Living Exhibition.

Part of European Heritage Days

19:00 | **Dinner**

Restaurant Mosta, Svilengrad

Tuesday 20.09.2022

08:00-9:00 | **Breakfast**

Hotel Svilena, Svilengrad

09:00-09:30 | Field trip to a mural depicting of Lesser Kestrels in Svilengrad

Svilengrad

10:00-11:00 | Field trip Lesser Kestrel Adaptation and Release Module in Levka

Levka

13:00-14:00 | Packed Lunch

Stara Zagora

14:00-16:00 | Field trip Wildlife Rehabilitation and Breeding Centre in Stara Zagora

Stara Zagora

18:00 | Arrival in Hotel Svilena

Hotel Svilena, Svilengrad

20:00 | **Dinner**

Restaurant Marica, Svilengrad

Wednesday 21.09.2022

08:00-9:00 | **Breakfast**

Hotel Svilena, Svilengrad

09:00-13:00 | Poster session

13:00-13:30 | Closing workshop

13:30-14:30 | **Lunch**

Restourant Marica, Svilengrad

14:30 | Departure

Hotel Svilena, Svilengrad

09:00 | Steering group meeting – Parallel meeting /Only members of group/

Hotel Svilena, Svilengrad

Whole day



Hellenic Society
for the Protection
of Nature



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oped to identify suitable foraging and nesting areas in central and eastern North Greece. Three different indices were created, the foraging habitat suitability index (FHSI), the nesting habitat index (NHI), and the abiotic conditions index (ACI). Those three indices were combined later to create the combined suitability index (CSI) for each settlement in the area of interest (677 of totally 1280 settlements in North-Eastern Greece). Five environmental parameters were selected as predictors of the FHSI (altitude, difference of NDVI between spring and summer, water and wetness index, tree density cover, and land cover use), three parameters as predictors of the HNI (human population status in 2011, the population trend for the period 1991 – 2011, and the build-up area of each settlement), three climatic and a soil parameters as predictors of ACI (mean precipitation in March-April, max precipitation in June, min temperature in April, and the soil bulk density). At the stage of the combined suitability index, we were able to create a matrix of CSI values for all the settlements and evaluate their importance as foraging (within a buffer area of 4,5 km from the settlement) and nesting habitat for Lesser Kestrel. Furthermore, all the distances of each settlement from the known colonies were calculated to estimate the proximity of each settlement to existing colonies and the possibilities of colonization through dispersal movements from the known colonies. Within this framework, it was possible to identify the most important settlements for further conservation measures needed to be implemented or identify the future threats or pressures for the Lesser Kestrel in the study area. Conservation measures like the placement of artificial nests, should be designed and implemented in the most suitable settlements with high possibilities of colonization and the most valuable foraging areas for the Lesser Kestrel.

ITALY

Potential threats posed by the wind power industry on the Lesser Kestrel: a continental-scale assessment

Giacomo Assandri^{1*}, Michelangelo Morganti², Diego Rubolini^{2,3}, Jacopo G. Cecere¹

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Thirty-five per cent of EU production of electricity derives from renewable sources. Wind power energy covered 16% of EU electricity demand in 2020, with a strong positive trend. To reach net-zero greenhouse gas emissions by 2050, unprecedented transitions in all aspects of society, including energy production, are required. Wind power energy is seen as a possible solution to reach this ambitious goal.

Wind power plants, although potentially helping to reach the EU sustainability goals in terms of green energy, pose serious threats to biodiversity conservation, determining habitat loss and direct impacts on wildlife, including bird mortality. There is some evidence of direct mortality determined by wind power plants on the lesser kestrel, but a clear assessment of the impacts posed by the wind power industry on the species lacks. In this study, we aimed at assessing the threats posed by the wind power industry to the three largest European populations of LK (Iberian, Italian, and Greek) and we evaluated the potential mitigation role of Natura 2000 network.

By profiting from a global dataset on wind power plant distribution, we explored the spatial intermixing of 1,837 colonies with power plants. This collaborative study was possible thanks to the building of an international network of lesser kestrel experts promoted by the LIFE FALKON project.

The median nearest-neighbour turbine-colony distance resulted lower in the Italian population (12.8 km), followed by the Iberian (27.5 km) and Greek (46.2 km). The same applied to the number of turbines within a radius of 10 km from colonies. Only two per cent of Greek colonies have at least one turbine within 10 km, compared to the 19% of the Iberians, and the 67% of the Italians. Comparably, 2.5% of the Greek population (number of pairs), 18% of the Iberian, and 68% of the Italian have at least one turbine within 10 km. When considering whether a colony is within or outside Natura 2000 network, most metrics did not differ, suggesting that this legal regulation is likely not sufficient in preventing the building of wind power plants in the vicinity of lesser kestrel colonies.

We are now developing our framework to explore the impact of wind power plants on the lesser kestrel at an individual level. To do so, we collected and managed data for 327 individual-tracked lesser kestrels from all three populations, aiming at exploring the potential exposure of lesser kestrels to wind plant mortality. During the meeting, preliminary results on this will also be presented.

The LIFE FALKON project: Fostering the breeding range expansion of central-eastern Mediterranean Lesser Kestrel populations

Michelangelo Morganti^{1*}, Davide Scridel¹, Giacomo Assandri², Gaia Bazzi², Nikos Tsiopelas³, Panos Kodoropatis³, Diego Rubolini^{1,4}, Jacopo G. Cecere²

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The Lesser Kestrel suffered a dramatic population decline during the last century, due to changes in farming practices and climate change. The species is currently experiencing a range contraction in the Southern breeding range **while it is expanding towards the North-East**, a process that will last in the future. This expansion will take place in the Central-Eastern Mediterranean region and will be triggered by those populations located at the North-Eastern margins of its distribution range. However, the persistence of these small and isolated populations is currently negatively affected by both intrinsic (e.g. small population size) and extrinsic (e.g. destruction of nest sites) threats.

The interventions of LIFE FALKON (LIFE17 NAT/IT/000586, www.lifefalkon.eu) target the populations settled at the northern edge of the current distribution range of the Lesser Kestrel, having as a general objective to foster the resilience of the species to climate change by improving the conservation status of northern Italian and northern Greek populations. The project started in July 2018 and it will end in December 2023, has a total budget of 1,8 M euros and it is structured in 17 main Actions which take place over four project areas: Po Plain (northern Italy), the city of Ioannina (NW Greece), the villages around Komotini (NE Greece) and the island of Limnos (NE Egean sea, Greece). The project is coordinated by the National Research Council of Italy (Coordinator) and the partnership is composed by the University of Milan, the Institute of Environmental Research and Protection of Italy (ISPRA), the Hellenic Ornithological Society and ALDA – European Association for Local Democracy. In its starting phases, LIFE FALKON studied the population status, the genetic, the movement ecology (>70 GPS tracked birds) and the habitat requirements of lesser kestrels in the project areas. As practical actions, **LIFE FALKON provided over 400 nest boxes in the project areas and built up five nesting towers in northern Italy**, whose colonization have been fostered through the translocation of chicks from southern populations. Moreover, LIFE FALKON created a **Lesser Kestrel comic and a floor game**. These promotional products have been already enjoyed by over 2,000 school pupils in the two countries. A documentary on the project activities will be released in early 2023. Stakeholders, farmers, nature lovers and local citizens are being involved in presentations, roundtables and field visits in order to raise awareness over lesser kestrel and farmland biodiversity protection. LIFE FALKON actively working on consolidating the international network of lesser kestrel experts and **will host a closing conference of its activity in form of an international congress in autumn 2023**. Since the beginning of the project, the target population are already experiencing a mild recovery, stating the efficacy of the LIFE FALKON interventions.

SERBIA

Observations of Lesser Kestrel (*Falco naumanni*) in Serbia in the 21st century

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Keywords: 21. Century, Lesser Kestrel, migratory, Serbia

During the most of 20th century, the Lesser Kestrel was widely distributed in Serbia, primarily in the South of the country, where it inhabited lowlands and hilly areas. During the second half of the 20th century in Serbia, there was a sharp decline of the breeding population of this species. From the beginning of the 21st century until today, it is considered an irregular or extinct as a breeding species in Serbia.