



Correlation of arrival dates during the spring migration of the Lesser Kestrel *Falco naumanni* and the daily temperatures between 2019 – 2024 in Bulgaria

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Introduction

In Bulgaria the Lesser Kestrel (*Falco naumanni*) has been numerous breeding species in the past, but now they are enlisted as Critically endangered. In 2013, activities were started on the reintroduction of the species in Bulgaria and today it breeds in 4 colonies with more than 40 pairs.

Discussion

Some of the reasons for the decrease in species are changes and fragmentation in its nesting and hunting habitats.

In recent years, it has also outlined a new threat to the species related to global climate change. In this study, we looked for a correlation with the climatic characteristics in the village of Levka, Svilengrad region, where one of the most numerous colonies of the Lesser Kestrel in the country is located.

The dates of return of the first birds from the wintering grounds and the temperature during the respective days and years were compared and can be divided into two periods.

During the first 2019 – 2021 year, the birds arrived in the first half of March, and during the 2022 - 2024 - the first half of February.

Results

Sample location:

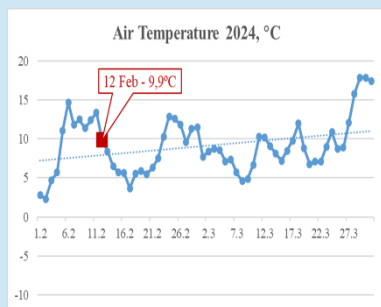
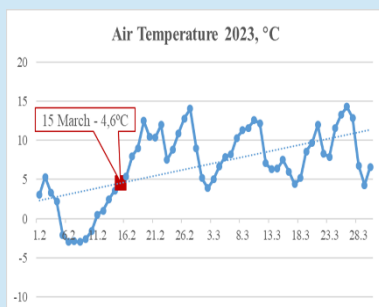
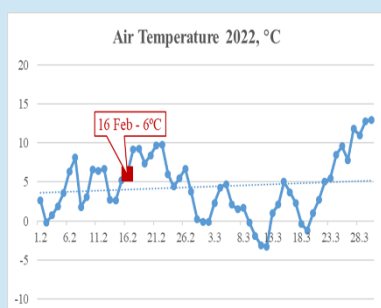
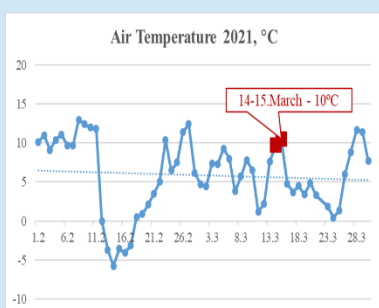
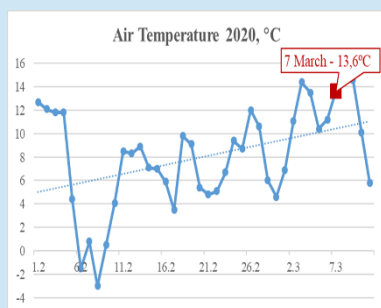
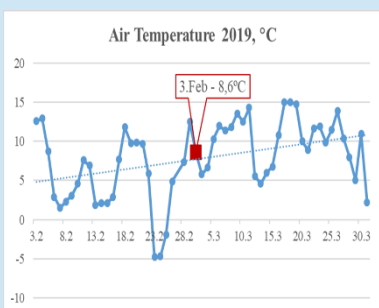
Village of Levka, Svilengrad region, where one of the most numerous colonies of the Lesser Kestrel (app. 25 pairs) in the country is located.

Sample size:

Dates of return of the first birds from the wintering grounds for 6 years (2019 - 2024).



year	2017	2018	2019	2020	2021	2022	2023	2024
date	23.02	24.02	22.02	01.03	11.02	16.02	30.01	12.02



Conclusions

- The earliest registration is on February 12, 2024, at a temperature of 9.9°C.
- The lowest temperature at which the first birds arrived was in 2023 (4.6 °C).
- There is a clear tendency for the arrival dates of the Lesser Kestrels from the wintering grounds to shift towards the beginning of February.

Acknowledgments

These results were achieved through Lesser Kestrel Recovery LIFE for Lesser Kestrel LIFE19 NAT/BG/001017 project, funded by the LIFE program of the European Union. The meteodata were collected within the project HIX 472/2022.