

DIFFERENT TYPES OF NEST BOXES USED BY LESSER KESTREL (*FALCO NAUMANNI*) AFTER BEING RECOVERED AS A BREEDER IN BULGARIA

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Introduction

Lesser Kestrel (*Falco naumanni*, Fleischer, 1818) is a small species of falcon, one of the smallest falcons found in Europe. Lesser Kestrel often nests in urban areas, as they provide nesting sites and the level of threat of predation in the nest is lowland areas usually surrounded by agricultural areas or open uncultivated areas providing food resources. In Bulgaria, at the close of the 19th C the Lesser Kestrel was reported as "nesting everywhere" (Radakoff, 1879), and in the mid-20th C as "fairly common" and widely distributed (Patev, 1950, Arabadzhiev 1962). In 2000-2010, there were no breeding birds reported (Barov, 2002) i.e., no confirmed breeding of the species (Iñigo, Barov 2010). With the help of a specialized project "Lesser Kestrel Recovery" LIFE11 NAT/BG/360 implemented by "Green Balkans – Stara Zagora" NGO the Lesser Kestrel has been successfully recovered as a breeder in Bulgaria.

Methods

After being recovered as a breeding species in Bulgaria, one of the main objects of conservationists is to make the colony stable. To achieve these objectives, it is necessary to provide suitable nesting places for the species. The field research was implemented on the territory of Lesser Kestrel Release and Adaptation Module in village Levka SPA "Sakar" (BG0002021) part of European Ecological Network NATURA 2000, where for the species are laid targeted conservation activities by a team of "Green Balkans – Stara Zagora" NGO within a project "Better Life for Lesser Kestrel in South-East Balkans" LIFE19 NAT/BG/001017. The monitoring of the occupied nesting places was carried out in the period March-September 2021, when is the breeding season of Lesser Kestrel. For its implementation standard internationally established methods are used, including observation and follow-up with: Binoculars; Field scope tube; Camera; Video surveillance.



Figure 1
Observation of Lesser Kestrel with binoculars.



Figure 2
Observation of Lesser Kestrel with field scope tube.



Figure 3 Observation of Lesser Kestrel with video surveillance

Results

From the surveys conducted in 2021 three types of artificial nest boxes have been identified:

Classical wall nest box;

Cavity wall nest box;

Under-roof nest box.

All artificial nest boxes are specially designed for the Lesser Kestrel in accordance with the methodology of the Spanish organization DEMA. The nest boxes are made from materials to be strong, reliable and to protect birds, eggs and young chicks. During the breeding season 2021 in the colony of Lesser Kestrel in the village Levka, part of SPA "Sakar" (BG0002021) is established 25 formed pairs in artificial nest boxes and between 3-4 pairs in natural nesting sites. After the end of the breeding season and data processing it was found that 85% of breeding pairs of Lesser Kestrel prefer to nest in artificial nest boxes. Artificial nest boxes are of great importance in providing safe nesting sites, more than 60 % of the population in Bulgaria use those (Gradev et al., 2021).



Figure 4 Classical wall nest box



Figure 5 Under-roof nest box



Figure 6 Cavity wall nest box

Conclusions

From the surveys have been identified three different types of artificial nest boxes: Classical wall nest box, cavity wall nest box, under-roof nest box. All studies conducted in 2021 show that Lesser Kestrel adapt extremely successfully to artificial nest boxes and this is a major way to conserve the species as well as increase its numbers.

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