

Predation is an inherent and crucial aspect of numerous organisms' lives. Among many animals subjected to the predators' pressure, it is birds that are particularly vulnerable to it, especially during the earliest stages of their lives. For many predators, sessile eggs and nestlings constitute a nutritious and abundant food source. Thus, nest predation is a major source of mortality in most bird species.

Despite a considerable attention the topic has received, for many years predators were excluded from the studied relationships, with researchers focusing mainly on environmental characteristics that affect predation risk, neglecting the key factor at play in this relationship which is the predator species. It is self-evident, however, that among broadly defined predators, we can find species with radically different adaptations and foraging strategies, which undoubtedly shape the risk of predation in a given area. Moreover, the species that are able to exploit birds' nests is dictated by environmental factors such as nest concealment within the vegetation, its placement and location within the habitat patch. The grouping of radically different predator species together can obscure potentially important patterns. Hence, the knowledge of the dominant nest predators and the environmental factors shaping predation risk is fundamental to analysing the complexity of these relationships in nature.

The aim of this project is the analysis of the spatial and temporal distribution of predated nests in the Eurasian reed warbler (*Acrocephalus scirpaceus*) - a small insectivorous passerine inhabiting extensive reed beds. The project will encompass four main objectives, first and most important of which will involve the identification of species responsible for nest losses in the species. This objective will be achieved thanks to camera traps that will monitor the surroundings of nests and capture the predation attempts. Second objective is to analyse the distribution of predation over time, both during the day, season and between seasons. The third objective encompasses the analysis of the distribution of predated nests in space. Finally, the last objective is to analyse the influence of vegetation structure, nest placement and nest location within a habitat patch on predator species plundering reed warbler's nests. As the breeding season progresses, reeds grow to considerable sizes and the water depth in the pond drops significantly. In most places, water dries up completely, potentially opening up new pathways for predators that were previously unable to reach the nests. Such rapid changes in habitat structure can affect which predator species plunder reed warbler's nests, which in turn can significantly affect predation patterns both in time and space. The results obtained in this project will provide an invaluable insight into the complex relationships between predators, prey and the environment, at both spatial and temporal scales. Undoubtedly, this project will also allow us to understand changes in the abundance of predator and prey species in shifting environments. Considering that due to global warming and increasing human pressure, natural ecosystems face rapid changes world-wide, numerous organisms are subjected to environmental factors that could modify the dynamics within the predator-prey system. Thus, we believe that our study will considerably contribute to expanding our knowledge on predator-prey relationships.