

## **ABSTRACT**

Various types of woody vegetation are a key biodiversity refuge in intensively managed agricultural landscapes. However, the role of woodlots, representing an important type of such a vegetation, remains overlooked so far. Whereas the previous studies focused on the effect of their area, shape and isolation, consequences of variation in their habitat quality for biodiversity were not assessed up to now. This thesis is thus one of the first studies focusing on woodlots as a specific habitat for birds in agricultural landscape. My goals were: (I) to find out what is the bird community composition of woodlots in a Czech landscape, (II) to find out, what are the key habitat predictors of bird species richness and abundance in woodlots, (III) to describe differences in habitat preferences among various guilds and (IV) to formulate recommendations for conservational practice.

I surveyed birds in 82 woodlots in an intensively managed landscape in Central Bohemia, Czechia, and measured variables describing woodlots' habitat quality together with woodlots' area, shape, isolation and types of surrounding land-use. I recorded numerous forest and non-forest bird species (57 in total), including some endangered farmland birds. The habitat variables showing significant relationships to bird community composition, species richness and abundance were: development of shrub layer, presence of cavity and dead trees, wetness, habitat diversity, diversity and species composition of woody plants. There was considerable difference in habitat preferences between forest and non-forest birds: species richness and abundance of forest birds was higher in woodlots with dryer habitat, denser shrub layer and more cavity trees, whereas non-forest birds preferred woodlots with a high habitat diversity and wet open habitats. Habitat characteristics of woodlots supporting the highest species richness of all birds are similar to those observed in woodlots preferred by forest birds.

In summary, woodlots are an overlooked landscape feature with a great potential for bird conservation in agricultural landscapes, including declining farmland birds, especially those of field-forest landscape mosaic. Their conservation value for birds can be facilitated by keeping the native woody plants in woodlots and by increasing woody plant diversity, as well as by protecting the cavity and dead trees from removal and especially by increasing the habitat diversity.