

## **ABSTRACT**

The aim of the present thesis is to give a comparison on sex determination of phenotypically undifferentiated birds species focused on the Long-eared Owl (*Asio otus*). Compared to other species of owls is relatively a few researches on the Long-eared Owl and researches on sex differences have not led to the quantified results yet. Attention is focused on characteristics and mechanisms of birds coloration. This work includes the methods and results of colour perception and interpretation in sexual dimorphism. It focuses primarily on the differences in color of certain parts of the bird, such as the alula, secondary remiges and lower part of the wing. For those pieces is further evaluating color differences in sex and proposes solutions that could help in further researches on sex determination of the Long-eared Owl.