

Abstract

This thesis is focused on determining the sex of the Long-eared Owl (*Asio otus*). Bird feathers were used during determination that were taken from owl's back while capturing and ringing. We have attempted to differentiate the sex of captured Long-eared Owl by DNA isolation from blood platelets in the bird quail and subsequent PCR reaction.

This thesis also describes the PCR method, which is one of the most used methods in the today's laboratories of many different fields of science. I also mention the individual components that are needed for the process of this reaction, its history and its individual steps.

Part of my diploma thesis is also the characteristic of the tested order and possible gender division based on morphological features. On this basis, there is also mention of the sexual dimorphism of birds, their plumage and its subsequent coloring. At birds and also at other animals are used different techniques of molecular determination of sex, which I also refer to in my work.

Keywords

Long-eared Owl (*Asio otus*), sex, chromosomes, feathers, colour, PCR, DNA