

Abstract

This thesis consists of description of chosen methods of permanent macroscopic zoological preparations. I verified successfully all the methods in practice and in case of methodological difficulties I optimized them for use in the school environment. In this work I answered the questions that could come up throughout the preparation process, for example: how to preserve the animal correctly; where to acquire the animal legally; what is the best way to maintain the animal's natural colour; what materials to use for the preparation and so on.

According to current approaches I created not only a text based version of the manual of all verified preparation methods, but also an online version in form of a web site. To clarify the methods I included video sequences, photographs and schemes. With this e-learning course a teacher will be able to extend the school collection with his own preparations and also will be able to recognize what significant characteristics to point out.

As a part of my work I have done a questionnaire focused on using various types of equipment in biology lectures. I have asked primary school teachers and high school teachers from all regions in the Czech Republic. This questionnaire was sent online and 322 out of 1636 people responded. The answers tell us that teachers appreciate permanent zoological preparations, but they use them much less in comparison to the other teaching aids. This could be caused by lack of this equipment in Czech schools. According to the results of my research, teachers are keen to produce their own preparations, but they do not have enough time or information where to find appropriate instructions. I offered the online manual to the teachers as a part of my questionnaire and I tried to find out about their idea of the manual's contents. Based on their feedback I therefore included some of the suggestions in it.

Keywords: preparation techniques, zoology, didactics, e-learning, teaching aids