

Abstract

The analysis of the fauna of Rezekne Lake (Lake Kovšu). Oļegs Anosovs, a student of form 11-a. the supervisor of the project (research): Irina Matule, chemistry teacher, Master of pedagogy.

The research contains 18 pages, 20 photos, 1 table, 2 scheme maps, 14 information sources, appendices (7 pages).

The inland waters of Latvia take 2543 sq. km or 4 % of the territory. In the result of intensive human activities, a supply of biogenic substance has dramatically increased at the banks of rivers, lakes and storage pools in Latvia. The eutrophication of water reservoirs and the degradation of water eco-systems are considered to be the most significant (acute, vital) environmental problems in Latvia. Lake Kovšu is located on the grounds of Rezekne town. This is the most popular recreation place of the town residents. The coast of the lake is inhabited.

The hypothesis of the research: long-term human commercial activity may negatively affect the biodiversity of the lake.

The aim of the research: the exploration of the diversity of lake inhabitants.

The tasks of the research:

- Getting acquainted with the diversity of the lake's fauna.
- The observation of the fauna's representatives' life and behavior.
- Identification of the lake fauna's representatives with the help of key-books.

The Internet [9] provides the information about microphytes of Rēzekne Lake (1974 and 2002 years) and about the most widely spread fish species (1974). Other research of the lake fauna has not been carried out.

Within two months, April and May, the life and behaviour of birds, amphibian animals, and insects have been observed. We used a binocular, took photographs, and video filmed when possible. Video records let us identify birds according to their sounds, take a look at quickly moving animals with the help of still photo. Small animals and caterpillars were observed with the help of lens and a microscope (optical and digital). The samples of water fauna were taken at the coast. To identify water animals, a key page was used. After recognizing of the group's name, we continued identifying species.

As there was only one swan family, it was rather easy for us to observe their life and their nestlings' growth.

During the research, we have collected samples of shells, insects, dragonfly caterpillars' chitin coats, as well as photographs and video records of fauna's observation of Lake Kovšu, which will contribute to the club's "Natural Friends of Latgale" museum exposition.

Conclusions

1. The analysis of the information on the depth of Lake Kovšu let us conclude that the given eco-system may be considered a big pond.
2. Having compared the photographs taken in the years of 2001 and 2008, we conclude that the lake coast is getting deteriorated very fast.
3. As a result of the research, 57 species of animals have been recognized in Lake Kovšu, among which there are birds, fish, amphibian animals, insects, spiders, crustaceans, and mollusks.
4. A great diversity and a number of fauna samples confirm that anthropogenic factors do not affect the eco-system of Lake Kovšu.

The results of the research may be exploited by teachers and journalists in order to develop the residents' ecological thinking and patriotic conscience.