

## **Abstract**

**Title:** Analysis of ice and water rescue statistics.

**Objectives:** The aim is to describe the work of rescuers during rescue operations on ice and water, to describe the watercourses and water areas freezing process, to describe hydrology of watercourses and water areas, to inform about the numbers of ice and water rescue interventions in past years and in each of Czech republic's regions and to determine a time series data tendency of ice and water rescue statistics – to predict whether the rescue interventions numbers will increase or decrease in the years to come.

**Methods:** Literature and study sources research and their further summarization, ice and water rescue statistics analysis by determining the time series data tendency (trends) by calculating linear regression parameters of these statistics, tendencies visualization using graphs and heatmaps.

**Results:** According to data analysis of years 2006 – 2021, water and ice rescue numbers will be decreasing in the future. On the other hand data analysis of years 2014 – 2021 predict an increase in these numbers. The conclusion is that the ice and water rescue numbers will be increasing in the future, although the numbers will not be as high as of past years of 2006 – 2014.

**Key words:** Analysis, statistics, tendency, trend, time series data, linear regression, graph, rescue, intervention, ice, water.