



## **Study of pulmonary functions of the tourist guides in two show caves in Slovenia**

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Park Škocjan Caves is located in South Eastern part of Slovenia. It was established with aim of conserving and protecting exceptional geomorphological, geological and hydrological outstanding features, rare and endangered plant and animal species, paleontological and archaeological sites, ethnological and architectural characteristics and cultural landscape and for the purpose of ensuring opportunities for suitable development, by the National Assembly of the Republic of Slovenia in 1996.

Due to their exceptional significance for cultural and natural heritage, the Škocjan Caves were entered on UNESCO's list of natural and cultural world heritage sites in 1986.

Caves have always been special places for people all over the world.

There has been a lot of research done in the field of speleology and also in medicine in relation to speleotherapy. There is still one field left partial unexplored and its main issue covers the interaction between special ecosystems as caves and human activities and living.

Implementing the Slovene legislation in the field of radiation protection, we are obligated to perform special measurements in the caves and also having our guides and workers in the caves regularly examined according to established procedure. The medical exams are performed at Institution of Occupational Safety, Ljubljana in order to monitor the influence of Radon to the workers in the cave. The issue of epidemiologic research encompass several factors that are not necessarily related to the radon.

Park Škocjan Caves established research monitoring projects such as caves microclimate parameters, quality of the water, every day's data from our meteorological station useful tool in public awareness related to pollution and climate change.

Last year a special study was started in order to evaluate pulmonary functions of persons who work in the caves and those who work mostly in offices. Two groups of tourist guides from Škocjan Caves and Postojna Cave were included in the study.

The promising results will highlight the need of medical survey of people working in the caves and help managers of the caves to adopt reactive management process. In order to facilitate decision process related to protection of people and caves environment, special recommendation in form of index of environment's use will be proposed after the study.