

# SLEDOVANIE RADIAČNEJ ZÁŤAŽE PRACOVNÍKOV JASKÝŇ Z EXPOZÍCIE RADÓNU

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## ABSTRACT

Vičanová M.: **Radiation load from radon exposure of cave staff**

Radon is a naturally occurring radionuclide. The highest concentrations of radon are found in underground spaces such as mines and caves. This work presents a review of seasonal variation of radon concentrations in the air in ten Slovak tourist karst caves and estimates of personal doses from ten karst caves during a seven year period.

The measured values of radon concentrations show seasonal variations. The minimum concentrations were found in winter and maximum in summer presumably because the highest difference between the outside air temperature and the inside air temperature in the caves is in summer. The highest levels of radon concentrations were found in these karst caves – Belianska, Bystrianska, Harmanecká, Ochtinská aragonitová and Važecká.

The ranges of annual average effective doses recorded for selected workers are from 3 mSv (Belianska cave) to 37.5 mSv (Ochtinská aragonitová cave). Our results suggest that the Slovak karst