

# Speleomics: omics insights into subterranean ecosystems

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## Abstract

The vocable 'omics' encompasses genomics, transcriptomics, proteomics and metabolomics. All these subfields deal with what used to be called "big data" that describe complex interactions. What can be the use of such highly sophisticated approaches when dealing with caves and other subterranean environments? Are subterranean ecosystems omics-worth?

Throughout this presentation, I will discuss recent, ongoing and planned studies when I used, use or will be using omics approach to shed light on the biology and biodiversity of cave ecosystems, as well as on the often invisible interspecific interactions they help reveal. Far from replacing traditional taxonomy and naturalist approaches to cave studies, I propose to blend them with omics to gain a more holistic understanding of subterranean ecosystem. I dub this brave new field 'speleomics'.

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## Conflicts of interest