

29th Special seminar on The IDEC Institute, 16th PHIS Seminar

Date: July 5th, 2023, 12:00 ~

Place: Hiroshima University, Graduate School of
Advanced Sciences of Matter Build, 6F Seminar room

Online: <https://onl.la/esEaSRT>

Title : Exploring the microbial realm: insights from karst
caves in Slovenia

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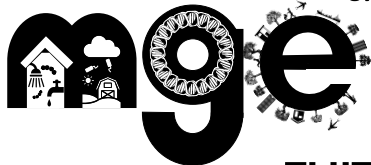
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Abstract

Karst landscapes, characterized by soluble rock formations and efficient underground drainage systems, have fascinating features such as caves. The discovery of the first cave-dwelling beetle in Postojnska Jama, Slovenia, in 1831 focused attention on their ecological importance. One of the first scientific mentions of microscopic organisms, i.e., dinoflagellates, in caves dates back to 1879. Microbes in caves show remarkable adaptability to a wide range of environmental conditions and habitats, including ice, sediments, organic wastes, water bodies, and surfaces. Microbes not only contribute to the overall diversity in caves, but can also play an important role in the formation and dissolution of minerals and occasionally pose a biological threat. In understanding the complex interactions among the environment, microbes, and animals in karst caves, it is important not to overlook the role of bats, which can serve as vectors of potentially harmful microorganisms to humans. Human activities have left their mark in some caves, so remedial actions are needed to restore natural conditions and mitigate adverse effects, especially in heavily visited caves. Future research in karst and other underground habitats, especially those that have received little attention, should focus on sustainable approaches to ensure human and environmental health. By taking a holistic view, we can preserve both the delicate balance of these underground ecosystems and our own well-being.

Microbial Genomics and Ecology



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Bilateral research project between JSPS and MESS
(JPJSBP 120235001)

