



## **22<sup>nd</sup> INTERNATIONAL KARSTOLOGICAL SCHOOL "CLASSICAL KARST" KARST AND MICROORGANISMS**

Postojna, June 16<sup>th</sup> to 20<sup>th</sup> 2014

### **First Circular**

International Karstological School "Classical Karst" has been organized since 1993. Different aspects of karst studies are presented at each school. The basic objectives of the meeting are to present current state of the art of the selected topic, encouragement of discussions related to the school's topic among participants through lectures, poster presentations and during field trips in the area of Classical Karst in Slovenia.

The development of molecular biology and general progress in nature sciences since 1990's resulted in increased number of studies of microorganisms and their interactions related to the karst underground. There are cases of complex ecosystems that are developed in the underground in the absence of light, and are based on energy and nutrients provided by the microbes in chemosynthetic reactions. Microorganisms in the caves are involved in both, lithogenic and litholytic processes. Many microbes are introduced in underground naturally, frequently also by means of human activities. Biofilms that are formed in show caves as a consequence of anthropogenic activities, represent a significant problem. Some microorganisms in caves represent biohazard for humans and animals. Indicator microorganisms are used to assess water quality of organic pollutions in the underground. There is a wide variety of habitats colonized by microorganisms which are poorly known, but they offer a major biotechnological and bioremediation potential. Our knowledge on interactions between microbes and higher developed organisms is still in its infancy.

## **Topic and objectives**

22<sup>nd</sup> Karstological School will serve as a forum to exchange ideas and experiences among professionals who deal with microorganisms on a daily base. During the meeting, a significant emphasis will be given to the need for holistic understanding of karst including geological, hydrological and ecological processes that are affected by the microbiota. Microbiologists will in the future gradually supplement new information which will serve for comprehensive understanding of underground processes.

### **The participants will get answers on the following questions:**

Why is important to study microbes in karst?

Which are natural processes in caves related to microbial metabolism?

What are sources of energy and nutrients in underground, and methods to reduce eutrophication in underground?

Which microorganisms are typical for subterranean aquatic and terrestrial habitats?

### **School will be carried out in the form of:**

introductory invited lectures from various fields of cave microbiology,

selected oral presentations of the School participants,

poster presentations,

afternoon and whole-day excursions.

### **The topics of this year's School are:**

Microbial diversity in the underground

Geomicrobiology and ecological interactions in caves

Microbes and natural processes in the underground

Underground eutrophication

Caves as a source of new species of microbes

Microbes in caves related to biohazard

### **Who are the participants at the School:**

Senior and junior researchers of karst, students, managers of karst resources and all those who are interested in karst as a natural phenomenon.

## Program outline

	16. June	17. June	18. June	19. June	20. June
	MON	TUE	WED	THU	FRI
Morning	-Arrival of participants -Registration -Opening event -Invited lecture -Lectures of participants	-Invited lecture -Lectures of participants	-Invited lecture -Lectures of participants	-Whole-day excursion	-Closing of meeting -Thematic excursion
Afternoon	-Poster session	-Thematic lectures -Field trip	-Thematic lectures -Field trip	-Whole-day excursion -Evening reception of participants	-Departure of participants

## Registration

The official languages of the School are English and Slovenian.

Registration is possible [only online](#) and will be open from 15 February until 30 April 2014.

Abstracts in English are submitted at the registration. Participants should indicate the preferred type of presentation (oral/poster), but the final decision will be adopted by the organizer. Abstracts will be published together with the Programme and Excursion Guide. Selected presentations may be published in the journal [Acta Carsologica](#).

The registration fee is 125 EUR and includes printed materials for the school and excursions, refreshments during coffee breaks and attendance at the evening reception. The registration fee for students is 25 EUR. The fee must be paid no later than 30 April 2014:

IBAN: SI56 01100 6030347346

SWIFT: BSLJSI2X

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The Second Circular of the 22<sup>nd</sup> International Karstological School with detailed programme will be announced from 10 May, 2014.

## Organizer

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