

BEST PRACTICES IN CAVE ANIMAL RESEARCH

In Slovenia, which is a relatively well-studied region, we're still discovering new species to science. Continued research is therefore justified. Limited sampling and harvesting can not exterminate of cave animals, but it is important that the principles of moderation and nature protection prevail.



Best practices mandate that pitfall traps should be labeled with the name of the researcher and a contact address.

Nature-conscious speleologists can contribute to the supervision of the implementation of protective regulations. If you find improperly labeled floor pitfall traps in caves, you can inform the authors of this leaflet, or any of the institutions involved in the study of cave animals or nature conservation.

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Front page: "narrow-necked" cave beetle (*Leptodirus hochenwartii*) (photo: Slavko Polak).

Background: many cave animals were first discovered and described in Slovenian caves (Photo: Monika Podgorelec).

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Layout and print: Trajanus d.o.o. Kranj, september 2008

1500 copies printed

Published by: Društvo za raziskovanje jam Ljubljana (Society for cave exploration, Ljubljana)



Produced in cooperation with Notranjska museum, Postojna, Caving club Črni galeb Prebold and Agency of the Republic of Slovenia for the Environment



On 1 May 2004, Slovenia became a member of the European Union. This publication is an integral part of the financial support of the program, with which the Slovenian government seeks to contribute to the awareness, understanding and public debate on EU membership, and consequences of membership for the lives of Slovenian citizens. The public awareness program is supported by the Office for Government Communication.



REPUBLIKA SLOVENIJA
MINISTRSTVO ZA OKOLJE IN PROSTOR



THE LIVING TREASURE OF THE CAVES

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Dinaric karst is a global hot spot of underground biodiversity. In addition to the most well known cave animal – the olm – Slovenian caves are inhabited by a great variety of invertebrates, such as beetles, arachnids, centipedes, crustaceans, molluscs and others.

Cave animal species are often endemic, living only in small isolated karstic regions. Many species and subspecies are only known from a single cave. Conservation of such caves is crucial for preserving the living treasure of the caves.



Photo: Slavko Polak

crustacean
Troglolaris anophthalmus



Photo: Primož Presetnik

spider
Stalita taenaria



Photo: Slavko Polak

pseudoscorpion
Neobisium stygium



Photo: Ciril Mlinar

beetle
Anophthalmus ajdovskanus
kaplai



Photo: Slavko Polak

beetle
Bathysciotes khevenhuelleri



Photo: Slavko Polak

olm
(*Proteus anguinus*)



Photo: Slavko Polak

gastropod
Zospeum spelaenum



Photo: Slavko Polak

isopod
Titanethes albus



Photo: Ciril Mlinar

beetle
Orotrechus lucensis

THREATS

The most serious threat to cave animals is pollution of caves and underground waters. Even moderate organic pollution can cause local extinctions of species adapted to the normally nutritional poor environment.

The local cave fauna, especially beetles, can sometimes be adversely affected even by excessive collecting of cave animals. Some unscrupulous amateur collectors in the caves set (too) numerous pitfall traps and leave them in caves for several months. Such non-selective traps may capture a substantial part of the local population of cave beetles. Collectors often don't report research results, and they even trade specimens of rare cave species in foreign insect markets.



Photo: Bojana Fajdiga

Some illegally set pitfall traps in a cave. Beetles are most often captured in pitfall traps which usually consist of a plastic or glass container which contains bait and a fixative.

LEGAL PROTECTION

Animals that permanently or intermittently live in caves are legally protected, so it is illegal to capture them, kill them, transport them, poison them, keep them in captivity in a cave or intentionally harass or remove them from the cave.

As an exception, the ministry responsible for the conservation of nature (i.e. the Agency of the Republic of Slovenia for the Environment) may authorize research of protected cave animals. The authorization states in writing to whom it is issued and for which species, the period of validity, the geographic area (for example, the name of the cave), the method used for capturing animals and the manner of reporting on the research.