

Ecology and distribution of the terrestrial molluscs living in the ‘Catacombs of Paris’ (France)

Quentin Wackenheim¹, Marina Ferrand²,

1. Laboratoire de Géographie Physique, UMR 8591 CNRS, Univ. Paris 1 & UPEC, Thiais, France
1. CDS94, EEGC, 27 Avenue Louis Pasteur 92220 Bagneux, France
Email : quentin.wackenheim@cnrs.fr

Keywords: biospeleology, Paris, land snails, subterranean,

Since the birth of the discipline in the XIX^e century, biospeleologists have studied all groups of invertebrate living in subterranean ecosystem. French karsts show a strong malacological potential with more than dozens of endemic stygobite and one troglobite species. Like natural caves, artificial cavities are suitable habitats with peculiar underground fauna which is, however, poorly known. Underground quarries seem indeed little investigated because of their poorer malacological biodiversity.

At 10 to 40 meters-depth beneath Paris and in the surrounding area, kilometers of galleries resulted from the former exploitation of the Lutetian limestone. For centuries, the whole underground network has been used and frequented by underground workers and explorers.

This work presents an overview of the malacological diversity, ecology and distribution in the Parisian underground quarries commonly called ‘The Catacombs’. 7 troglaphiles and 1 endogean taxa were identified. *Oxychilus* species, *D. rotundatus*, slugs, and *C. acicula* are commonly observed. The discovery of several living populations of *Z. arboreus* appear unusual and suggest human introduction. Most of the species identified are tolerant taxa for which the trophic condition is a characteristic that could explain their success in this particular environment. This supports the assumption that human activities (quarrying, consolidation, exploration) have an impact on mollusc biodiversity.