

Hibernating *Pipistrellus pipistrellus* in Romanian caves. Review

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*Нодь 3., САНТО Л. Зимівля *Pipistrellus pipistrellus* в румунських печерах. Огляд.*

In 1963, the existence of an extraordinarily big hibernating colony of pipistrelle bats (with 60,000 specimens) in the Sura Mare cave, Sureanu Mountains, was published by the first time in "Annales de Speleologie". Unfortunately, during the last decades, this information has been cited mostly with wrong data concerning the extent of the colony and the location of the cave. The aim of this review is to clarify the status of this colony. In many articles and books, the existence of a colony of 100,000 individuals is mentioned as "somewhere in Dobrogea", but in the southeastern parts of Romania nobody found pipistrelle bats hibernating in caves.

In the winter of 1999–2000, we investigated 45 underground sites in different regions in the country: Dobrogea, Southern and Western Carpathians. We found 5 caves with hibernating pipistrelle bats, including Sura Mare cave. In this cave, during the last 30 years, the number of bats decreased significantly, in early February of 2000 we found ~25,000 specimens of pipistrelle (4,5 compact square meters), as well as one barbastelle colony with 32 individuals.

As the results of the winter census, we found hibernating colonies in four other caves in Bihor-, Trascau Mountains and in the Cazan Pass near the Danube. All these caves share some particularities, such as large entrance, high corridors and halls (15–25 m), constant water flow (0,5–2 m deep) and relatively low temperatures (4–5 °C) under and near the colonies. In three of the caves, we found just a few hundreds of bats, but the cave, which is in the Trascau Mountains, seems to be a very particular hibernating site. This site houses the biggest colony of pipistrelle bats in the present, which consists of more than 40,000 individuals associated with about 230 *Nyctalus noctula* in one small part of the colony. This colony of noctules is first mentioned from a cave in winter in such number. In the cave, 3,500 specimens of *Myotis myotis*, 70 of *Rhinolophus ferrumequinum* and 11 of *R. hipposideros* were also hibernating, and one of the biggest hibernating *Barbastella barbastellus* colony (48 ind.) from Romania was also identified here. This year, in July, using "Pettersson D200" bat detectors, we identified *P. pygmaeus* for the first time in Romania near the Bihor Mountains in the neighbourhood of Cefa village. The next step is to demonstrate the ratio of the pipistrelle and pigmy bats in these huge winter colonies and make a proposal to protect these caves.