

Preliminary report on bats from NW Transylvania: their distribution, species composition and conservation

Bogdan P. ONAC¹ & Mihaela V. ZOTESCU²

¹ University of Cluj, Department of Mineralogy, Kogalniceanu 1, and Speleological Institute "Emil Racovita", Clinicilor 5, 3400 Cluj, Romania. bonac@bioge.ubbcluj.ro

² University of Agriculture and Veterinary Sciences, Matorilor 2, 3400 Cluj, Romania

Romanian karst hosts more than 12,000 caves. As only few scientists are involved in the field of bat research, the knowledge on distribution, species composition and their ectoparasites is very basic. However, twenty-nine bat species belonging to the Rhinolophidae and Vespertilionidae families were documented so far in Romania.

The caves investigated in this paper during the autumn of 2000 are located in NW Transylvania and belong to the following main geographic units: Somes Plateau, Trascau, Padurea Craiului, and Bihor Mountains. Here we present in brief the bat species identified in each of the caves: Rastoci Cave (Somes Plateau): *Myotis blythi* (large reproduction colonies); Huda lui Papara Cave (Trascau Mountains): *Rhinolophus hipposideros* (small colonies); Ungurului Cave (Padurea Craiului Mountains, hereafter MPC): *Rhinolophus ferrumequinum* and *Myotis myotis*; Tasad (MPC): *Rhinolophus ferrumequinum*; Meziad Cave (MPC): *Rhinolophus ferrumequinum* and *Pipistrellus pipistrellus*; Poarta lui Ionele Cave (Bihor Mountains, hereafter BM): *Rhinolophus ferrumequinum*; Daminii Cave (BM): *Plecotus auritus* and *Myotis emarginatus*; Hodobana Cave (BM): *Plecatus auritus* and *Myotis myotis*; Humpleu Cave (BM): *Myotis myotis*; Codreanu Mine (BM): *Rhinolophus ferrumequinum* and *Myotis myotis*; Peretii Corlatului Cave (BM): *Rhinolophus ferrumequinum* and *Rhinolophus hipposideros*; Izvorul Crisului Negru Cave (BM): *Rhinolophus ferrumequinum*, *Rhinolophus hipposideros* and *Myotis myotis*. In all these caves we measured both temperature and humidity, and we collected ectoparasites from various species.

In Romania, the number of Chiroptera species decreased significant during the last 40 years. Some of the reasons for this situation are listed below:

- some caves used as shelters by bats became more frequently visited by cavers and tourists;
- cavers activities (camping, blasting, exploration) always represent a factor of stress for bat colonies, especially when their activities are taking place during hibernation or young growth period;
- uncorrectly gating of some caves;
- the adverse effect of overusing pesticides in agriculture and silviculture

Nowadays, a considerable effort is put in bat conservation and protection by different organizations among which the most important are the Speleological Institute, Romanian Speleological Federation and many other non-governmental ecological groups. To help with education and conservation, these organizations are organizing slide-show programs, exhibition panels, and publishing a wide range of leaflets and booklets.