


Forests *Forests*

Due to forest practices in intensively managed forests, the loss of foraging habitats and suitable tree-hollows is an important influence on several bat species. The demands differ according to the individual species and habitat; also in the case of the indigenous Western Carpathian forests. Many of the stands are still composed of natural tree species and some of them are unique primeval forests. They are one of the most important but still heavily exploited central European ecosystems. European activity NATURA 2000 is one of the ways for protection of forest bats. Also the presence of bat species of European importance (e.g. horseshoe bats, mouse-eared bats, Bechstein's bat and barbastelle) was a background in definition of Special Protected Areas. The nature friendly forest management can provide sustainable conservation of bats and their habitats.



Colonies of Daubenton's bat (*Myotis daubentonii*) depends on suitable tree-hollows



Forest-dwelling brown long-eared bat (*Plecotus auritus*) gleans prey from foliage

People *People*

Slovak Bat Conservation Group (SON)

Non-government organisation focused on the protection and research of bats and their habitats as well as public awareness activities in Slovakia. It has been established since 1993 and associates professional and amateur bat workers.



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State Nature Conservancy of the Slovak Republic

Organisation of the Ministry of Environment of the Slovak Republic which provides habitat and species protection, coordinates research and monitoring, secures expertises, consultations and environmental education and participates in international cooperation in nature conservation.



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Conservation of Bats in Slovakia



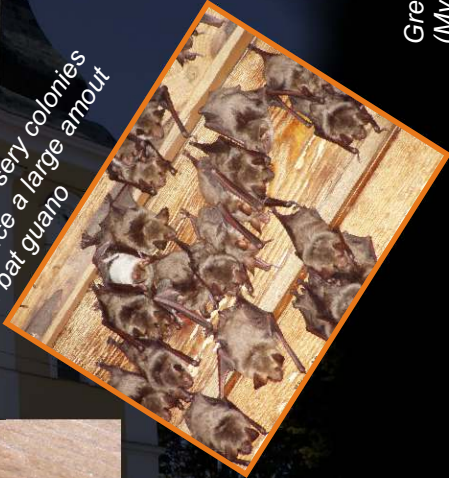
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Nurseries

Nurseries

More than 3000 buildings and their roof attics have been surveyed since 1996. Several house-dwelling bat species (mainly horseshoe bats, great mouse-eared bats, Geoffroy's bats, serotine bats and long-eared bats) occupied often church and other old attics as a nursery roosts. Cleaning bat guano from roof attics is an effective conservation measure for large colonies (commonly some hundreds females). In the case of roof reconstruction, the timing of works to minimise disturbance, creation of bat friendly entrances and limited access areas to protect bats are being advised on. Cooperation with house owners and use of bat guano in gardening by local people can raise public awareness.

Large nursery colonies produce a large amount of bat guano



Lesser horseshoe bat (Rhinolophus hipposideros) is still commonly breeding in roof attics



Hibernacula

Hibernacula

Greater mouse-eared bat (Myotis myotis) is one of the most frequent hibernating species in underground



Strict protection of the mass hibernacula demand our attention



More than 300 winter roosts (mainly caves and old mines) are monitored each year. Some underground hibernation sites are occupied by numerous assemblages for long-term periods. Mass winter roosts (even some thousand individuals) are known for common pipistrelle, barbastelle and Schreiber's bat. The majority of the conservation activities involve reconstruction (e.g. vegetation cutting) or gating of cave and mine entrances to provide suitable fly paths and to avoid human disturbance of bats (in cooperation with the Slovak Cave Administration). All caves are protected by law. Some of them are included in UNESCO natural heritage and other underground habitats (e.g. Dubnicke bane Mines) were established as specially protected natural monuments, due to important presence of bats.



Prefabs

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The conflicts between bats and human dwellers in prefab houses are going to be a serious problem in the near future. During the last decade, occurrence of noctules (partly also pipistrelles and parti-coloured bats) considerably increased in prefab settlements in towns (especially in autumn and winter). Bats (sometimes in hundreds) occupy attics and crevices between panels. Noise disturbance, the presence of droppings and individual bats entering the living area causes problems for the occupants. Structure of prefab buildings (ventilation shafts) can be also a dangerous trap for bats. Also bats may be killed during reconstruction works (e.g. thermal insulation of walls). Several cases were successfully resolved through timing of works to minimise disturbance, translocation or evacuation of bats, and emergency care of exhausted bats but new cases are still appearing. A search for the best solution is still in progress.



Noctule bat (Nyctalus noctula) in emergency care



Prefab house-dwelling bats are also active during winter

