

## To the methods of bat roosts detection in forests of western Ukraine

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**ТИЩЕНКО В. До методів пошуку сідал кажанив у лісових масивах західної України.**

Ecological and faunistic bat investigations need complex field studies in the explored territories. Finding of summer bat roosts is a really important stage of such investigations. Its realisation in large forest stands is a laborious process, which requires learning allocation regularity of bat roosts. Interchange of experience between chiropterologists may lead to elaboration of perfect and effective summer bat roosts searching technique. The proposed method may become a part of this technique. It is based on social bat sound registration during field investigations of some forested areas. This method was worked through three summer seasons in 1998–2000 during field investigations of forest stands in west Podillia.

Primary determination of the most perspective forest stands for bat roosts searching was defined by intensive data analysis of large-scale maps, forest stand plans and polling of forestry employees. First of all such territories are immature, mature and overmature forest stands with *Fraxinus excelsior*, *Fagus sylvatica*, *Acer platanoides*, *Populus tremula*, *Tilia cordata* domination and mainly D<sub>2</sub> forest site type. The most interesting are windbreak and windfall areas, small felled areas, glades on a gibbous relief, slopes and meadows, saplings areas, karst formations and ponds near forest stands. Preliminary route not more than 5 km was designed based on these data. This route is desirable to be formed by forest quarterly cuttings or paths. Intensification of social bat activity becomes increasing in the evening (17.00–20.00), so these hours are the best for going through the planned route and looking for bat roosts by their social sounds. So, *Nyctalus noctula* roosts can be explored at a distance of 60–80 m, *N. leisleri* — 30–40 m. If necessary, capture of bats near the explored roosts may be realised in the same evening. The most favourable season for such bat investigations is the latter half of the summer, when absence of bird evening acoustical activity advantages to conduct them.

Thereby inventory and monitoring of bat populations in forest roosts will allow to get detailed information about their current state, quantity changes and also will promote their preservation.