The State of the Fauna of Bats in the Ukrainian Azov Region in Modern Environmental Conditions

Anatoly Volokh[1], Petro Gorlov[2], Valery Siokhin[2],
Igor Polishchuk[3], [1]Dmytro Motornyi

[1]Tavria State Agrotechnological University, Melitopol;
[2]Bogdan Khmelnitsky Melitopol State Pedagogical University, Melitopol;
[3]Falz-Fein Biosphere Reserve «Askania Nova», Askania Nova, **Ukraine,**
e-mail: *volokh50@ukr.net*

The almost complete transformation of the steppe into agrocenoses bordered by forest belts and irrigation canals undoubtedly affected bats against the background of global warming. Using modern ultrasonic detectors (Pettersson D240x, D500x; LunaBat DFR-1 PRO), licensed computer programs and an electronic library of voices, in 2010-2021 15 species of these vulnerable mammals were found in the Ukrainian Pryazovia. Their greatest diversity (11–13 species) is typical of places where intensive migration flows take place. First of all, it is the space between the Dnieper valley and the Crimea peninsula. Probably, in this bottleneck, bats migrating from the northern and northeastern regions cross the land and join those moving along the Azov coast. A significant number of animals move along the floodplain of the Molochna River. A relatively large variety of bats occurs near settlements located directly on the northern shore of the Sea of Azov, along which the migratory movements of bats are particularly powerful. During the winter, with limited research in this period, 8 species were found, during spring and autumn migrations – 13 and in summer – 11 species.

In recent years in the Ukrainian Pryazovia there has been a decrease in the number of *Pipistrellus pygmaeus* and *Eptesicus serotinus*, as well as an increase in groups of *Nyctalus noctula*, *Pipistrellus kuhlii*, *P. nathusii* and *Vespertilio murinus*. In all seasons the least common and not numerous were *Plecotus auritus*, *Myotis daubentonii*, *Nyctalus lasiopterus* and *N. leisleri*, *Hypsugo savii* and *Barbastella barbastellus*.

During migrations in the Ukrainian Pryazovia, bats usually stop in tree hollows in parks, artificial forests and forest belts, various cliffs and buildings, which are used as temporary shelters. In some of them they form small colonies and even overwinter.