

**The Most Comprehensive Study on Mammal Biodiversity in Karabük Province (Turkey)**Murat DOĞAN<sup>1</sup>, Şafak BULUT<sup>2</sup>, Burak AKBABA<sup>3</sup>, Ahmet KARATAŞ<sup>4</sup><sup>1</sup>Ekoiz Çevre Dan Ltd Şti., Ankara, Turkey<sup>2</sup>Department of Biology, Hitit University, Turkey<sup>3</sup>Department of Biology, Hacettepe University, Turkey<sup>4</sup>Department of Biology, Ömer Halisdemir University, Turkey  
ekoizcevre@gmail.com

**Aim of the study:** Karabük province in Middle Black Sea Region is located between the Central Anatolian and Black Sea coastal regions, and thus it has different vegetation structures developed under the influence of different climates. This provides different habitat variations for mammalian species, thus creating a rich variety of species within the province. There is no comprehensive scientific study of mammal species that has been distributed throughout the province before. In this study, it was aimed to determine the mammal fauna of Karabük province which is on one of the most important wildlife corridors in North Anatolia.

**Material and Methods:** Systematical field studies were carried out at all areas located in the Karabük province between 2012-2014, in order to determine the mammals spreading inside the borders. Bushnell Trophy Cam, passive infrared camera traps were used to determine large mammals during field studies. In addition to camera traps, large mammal fauna was also recorded by using noninvasive methods such as counting scats, footprints and other remaining. In the detection of small mammals, Sherman live capture traps were used. The small mammalian individuals caught in the trap were released after the species identification was made. Individuals who cannot be morphologically diagnosed were identified by using karyotype and skull characteristics in laboratory conditions. Studies for identifying bats species were conducted at different localities and Pettersson D 500X, ultrasound device was used to record the sound of species. BatSound and BatExplorer computer software were used for further analysis. The GPS points of all stations, the records those were taken at this coordinates and in the near vicinity had been recorded in UTM format. Species conservation status were organized according to the IUCN, BERN and CITES criteria's.

**Results:** This was the first long term study on mammals covers whole of Karabük province. Within the scope of this study, a total of 25 mammal species belonging to Erinaceomorpha, Soricomorpha, Chiroptera, Lagomorpha, Rodentia, Carnivora and Artiodactyla were detected. These species were; *Erinaceus concolor*, *Sciurus anomalus*, *Cricetulus migratorius*, *Microtus levis*, *Microtus subterraneus*, *Arvicola amphibious*, *Apodemus flavicollis*, *Rattus rattus*, *Lepus europaeus*, *Ursus arctos*, *Canis lupus*, *Canis aureus*, *Vulpes vulpes*, *Felis silvestris*, *Martes foina*, *Lutra lutra*, *Mustela nivalis*, *Sus scrofa*, *Cervus elaphus*, *Capreolus capreolus*, *Rhinolophus ferrumequinum*, *Rhinolophus hipposideros*, *Myotis myotis*, *Eptesicus serotinus* and *Miniopterus schreibersii*. The diversity of mammal species in Karabük province is remarkable. The data obtained from this study show that this region is a very important area in terms of mammal species. The location data of the species determined in the study form the basis data for more extensive ecological studies and conservation work that can be done in the area and around about the species in the future.

**Acknowledgements:** We would like to thank General Directorate of Nature Protection and National Parks (Ministry of Forestry and Water Affairs) and Provincial Directorate of Karabük Nature Protection and National Parks for providing legal permission and the necessary support to make this study possible.

**Keywords:** Camera trap, Sherman live trap, bat recorder, mammal, Karabük