

# Anthropogenic barriers to the distribution of the Grey Wolf (*Canis lupus* Linnaeus, 1758) in the Beydağları Mountains area, Turkey

(Mammalia: Carnivora)

Tamer Albayrak

**Abstract.** Field observations, interviews with local people and Forestry Department workers and camera trapping were used to determine the status of wolves in the Beydağları Mountains and surroundings. Following interview data, camera traps were placed at 17 stations between 1100 and 1900 m a.s.l. in Çıglıkara Nature Protected Area (NPA) and were maintained for 1031 camera days, from 29 May to 25 September 2009. Wolf pictures were taken during the time period of 20:00 and 06:00 hours and at the altitude of 1600–1800 m a.s.l. The population density of wolves was 0.9 individual per 100 km<sup>2</sup> in the trapping polygon, with a buffer area of 445.5 km<sup>2</sup> calculated using Geographic Information System (GIS). Çıglıkara NPA regularly hosts a wolf population in the Beydağları region due to anthropogenic barriers, topological barriers (high mountain ranges) and habitat preferences. The other areas of the Beydağları region have human structures such as villages, roads, farmland, high plateau houses, etc, that negatively affect the wolf distribution pattern.

**Key words.** Grey Wolf, *Canis lupus*, conservation, mammals, camera trapping, Anatolia, Turkey, Middle East.

## Introduction

Although in the past the Grey Wolf, *Canis lupus* Linnaeus, 1758, one of the largest carnivores in Turkey, was widely distributed in most parts of Turkey, it occurs nowadays in fewer places and the population has been declining in particular since the 1980s (SALVATORI & LINNELL 2005). Few studies have been conducted on wolves in Turkey (CAN 2004, TUĞ 2005, CAN & TOGAN 2009). Wolves are adapted to most terrestrial habitats and in Turkey they inhabit steppes, forestlands and other areas where they find adequate prey such as Wild Boar (*Sus scrofa* Linnaeus, 1758), Red Deer (*Cervus elaphus* Linnaeus, 1758), Roe Deer (*Capreolus capreolus* (Linnaeus, 1758)), Brown Hare (*Lepus europaeus* Pallas, 1788) and livestock (CAN 2004, TUĞ 2005). They are pack-living animals and occupy territories of 75–2,500 km<sup>2</sup> depending on prey density, and these are maintained through howling, scent-marking, and direct killing (MECH & BOITANI 2004).

The Beydağları Mountains and surroundings are part of the Taurus Mountains within the borders of Antalya province in south-western Turkey. The region includes three Natural Protected Areas (NPA) (Çıglıkara NPA, Dibek NPA, Alacadağ NPA), three Wild Life Developing Areas (WLDA) (Sarıkaya WLDA, Düzlerçamı WLDA, Sivridağ WLDA) and two National Parks (NP) (Termessos NP, Beydağları NP). The south-western coasts of Turkey, including these regions, represent an important part of the Mediterranean Basin biodiversity