

ON *SUS SCROFA* (MAMMALIA: CHIROPTERA) IN TURKEY

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ABSTRACT: *Sus scrofa*, a member of Order Artiodactyla belonging to Classis Mammalia is widely distributed in Palaearctic and Oriental regions. The researches concerning the population size of large mammals in Turkey are increasing recently, due to the noticeable dramatic changes driven mainly by habitat destruction. This study is composed of some field works carried out in Turkey between 2001 and 2017. Activations of *Sus scrofa* were assessed with camera trap data in Kırıkkale Province. Camera trap records pointed out that wild boars visited large areas depending on the seasonal nutrient diversity. Hunting areas and hunting months determined for wild boar according to decision of the Central Hunting Commission for every year were evaluated. It was concluded that the importance of the conservation of the wild boar should also be emphasized on an approach that would maintain the natural balance.

KEY WORDS: Wild boar, *Sus scrofa*, camera trap, population activation, Turkey

The Classis Mammalia is represented by 29 orders in the world. From these, Artiodactyla has 10 families, 89 genera, 240 species. Family Suidae has 5 genera and 19 species (Wilson & ReDeer, 2005). One of the species is *Sus scrofa* (wild boar), a member of the family Suidae. This species has a wide distribution area, palaearctic and oriental regions zoogeographically. There is only a single species of this family in Turkey, *Sus scrofa*. *Sus scrofa* is a species distributed all over Turkey. The first record of the wild boar from Anatolia was given by Danford & Alston (1877). Then Flower & Lydekker (1891) recorded that wild boars were in Anatolia and Tunçok (1935) in Turkey. Ellerman & Scott (1951) reported the presence of *Sus scrofa libycus* subspecies in Turkey. Mohr (1960) reported the existence of *Sus scrofa libycus* as a subspecies in Turkey. Mursaloğlu (1964) declared that the number of wild boar had declined. Kumerloeve (1965) mentioned a wild boar in Ankara Zoo. Steiner & Vauk (1966) recorded *Sus scrofa* from the Elmadağ district of Ankara Province. Corbet & Morris (1967) stated a wild boar at a height of 2000 m in the Finike district of Antalya province. Huş (1967) gave more information about wild boar bio-ecology. Hirsch (1972), Kumerloeve (1978), Turan (1984) and İnci, Albayrak & Wilson (2007) declared some distributional, hunting and bioecological notes about wild boar. Wild boar was also studied karyologically (Albayrak & İnci, 2007; Arslan & Albayrak, 2009). One of the recent research was on the molecular investigation of the wild boar (Demirbaş, 2016).

The aim of this study is to give a recent status of wild boar in Turkey.

MATERIALS AND METHOD

This research is based on various projects carried out on some mammals in Turkey since 2003 and on the results of wild boar in two projects carried out in Kırıkkale Province since 2015. Distributional areas of wild boar in Turkey and status of the wild boar population of Kırıkkale province were examined. The records of the wild boar were made using some methods such as interview with

people in the field. Using camera traps records were considered for daily activities. Additionally, data produced using binoculars or naked eyes, feces, footprints, bedding areas, wild boar hairs in the hunter's feces, skeletons or remains, legal hunting and traffic accidents, damage to the crops were recorded in the field as the indication of wild boar existence.

FINDINGS

The wild boar found in Turkey, is one of the important species. It is a large mammal and the main food source of large carnivore species.

Sus scrofa L., 1758 (Wild Boar)

1758. *Sus scrofa* Linnaeus Syst. Nat. 10th. 1:49.

Type locality: Germany.

Diagnostic characters: Condylbasal length, 385.1 - 401.1 mm; zygomatic width, 136.3-152.3 mm; interorbital width, 77.0-89.9 mm; nasal length, 198.209.7 mm; orbital width, 41.6-44.7 mm; palatal length, 192.5-204.7 mm; brain capsule length, 156.1-134.7 mm; the maxillary tooth row length, 152.72-165.74 mm: the lower row tooth row length, 159.52-177.26 mm.

Ecological characteristics: Wild boars are intensely found in the edge swamp and forest areas of pine, oak and cedar trees. To find food in winter, they look for seeds, dried fruits, roots and even some rodents in the fields, and in summer feed mainly on acorns, wheat, barley, moon flower, corn, beet, bean, lentil, chickpea, almond, mountain wine, grape watermelon, melon, worms, insects, molluscs and rodents (Fig. 1).

The distributional areas of these animals, which have a social life, are constrained due to anthropogenic effects. If there is plenty of food in the proper habitat, the population will increase dramatically. The wolf fed on these animals, generally prefers their infants. Human- wild boar conflict limits the structure of a wild boar population. Some research results with camera traps in Kirikkale show that wild boars are still in good condition. Wild boar attracts attention with the abundance of the number of piglets. Five embryos were found in a wild boar that was hunted in March. Two newborn babies were found in April. According to this, it is seen that the wild boar enters the period of fever between November and December. Wild boar mates in December and January. She gets pregnant once a year and gives her 3-9 piglets (Fig. 2).

Climate types and activity of wild boar: It shows the three types of climatic conditions in Turkey. These are terrestrial climate, Mediterranean climate and Black Sea climate. Kirikkale is one of the typical provinces in the Central Anatolia Region which has a steppe characteristics in terrestrial climate (Fig. 3).

Wild boar lives big groups in every season in Turkey. According to the camera trap records, wild boar is also active in everytime throughout the year in Kirikkale province.

1. DENEK MOUNTAIN

They were monitored by 13 camera trap for 68 days between 26 May-17 August, 2016 in the research area. The highest number of individuals caught with camera traps was 9. It was determined that they were active between 19:00 pm and 10:00 am without interruption, and between 1:00 am and 3:00 am,

and 5:00 pm and 6:00 pm during the day, reaching the maximum number between 01:00 am and 02:00 am, and 8:00 pm and 9 pm (Fig. 4).

2. ÖZDERE SATATE HUNTING GRAUND

In this study area, they were recorded by 11 camera for 68 days in the research area between 9 February-17 April, 2017. The highest number of individuals caught with camera traps was 19. It was determined that they were active between 7:00 pm and 3:00 am and, between 4:00 am and 8:00 am. The daily records indicate that the wild boar has reached the maximum number between 07:00 am and 08:00 am, and 08:00 pm and 09:00 pm (Fig. 5).

3. AFŞAR DISTRICT

In this study area, they were recorded by 11 camera for 33 days in the research area between 1 June-4 July 2017. The highest number of individuals caught with camera traps was 2. It was determined that they were active between 20:00 pm-21:00 pm and 22:00 pm-23:00 pm, between 12:00 am-1:00 am and between 4:00 am-5:00 am. The records indicate that the wild boar has reached the maximum number between 22:00 pm-23:00 pm at night (Fig. 6).

4. KÜRE MOUNTAIN II

In this study area, they were recorded by 9 camera traps for 65 days in the research area between 29 September-1 December, 2017. The highest number of individuals caught with camera traps was 66. It was determined that they were active in all day and not active only between 9:00 am and 10:00 am, and between 4:00 pm and 5:00 pm during the daytime. It was reached the maximum number between 9:00 pm and 10:00 pm (Fig. 7).

The intensity of these two areas in terms of human activities affects the wildlife negatively. The awareness activities in the residential areas will contribute greatly to the protection of the wildlife elements.

RESULTS

Wild boars are nourished by visiting many places with long-distance movements at nights and return to their bedding sides during daytime in winter and summer. Wild boar is widely found in Turkey in all places including agricultural areas. It was frequently stated by farmers that the fences surrounding small vineyards and gardens might be deterrent for wild boar. However, this is not possible for large agricultural areas. Although they are shown in the least concern (LC) category according to the IUCN criteria and people tolerate wild boars very little, their role in the ecosystems must continue to function as a large carnivore species to the least. Scientific researches on wild boar should evaluate the status of protection by monitoring the situation every few years.

Although there are intense complaints about wild boars in everywhere, they are useful animals against all odds. That population size for wild boar is derived from the fact that it can not be balanced by natural predation and the only factor is the insufficient number of wolves. In this perspective, we can regard wild boar as useful animals.

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Figure 1. A wild boar encountered in an oak forest in Kırkkale province.



Figure 2. An orphan piglet fed at Kırkkale University (Photo: İ. Albayrak).

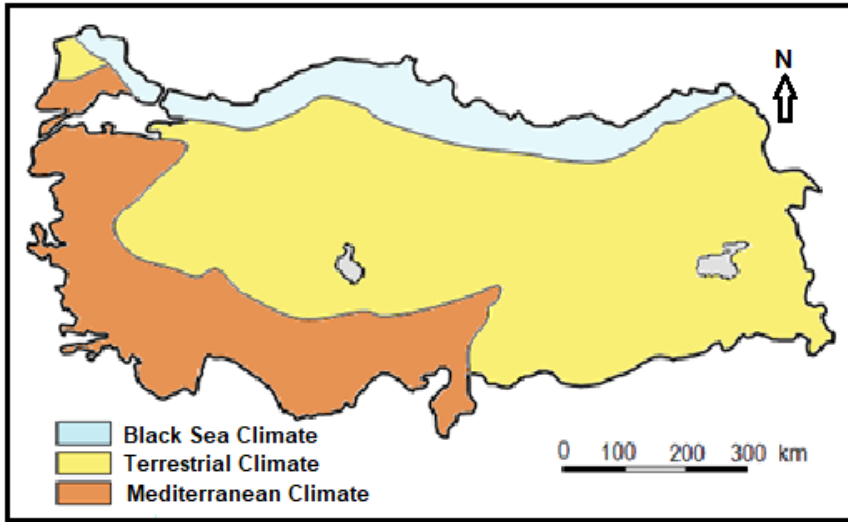


Figure 3. Three climate types seen in Turkey.

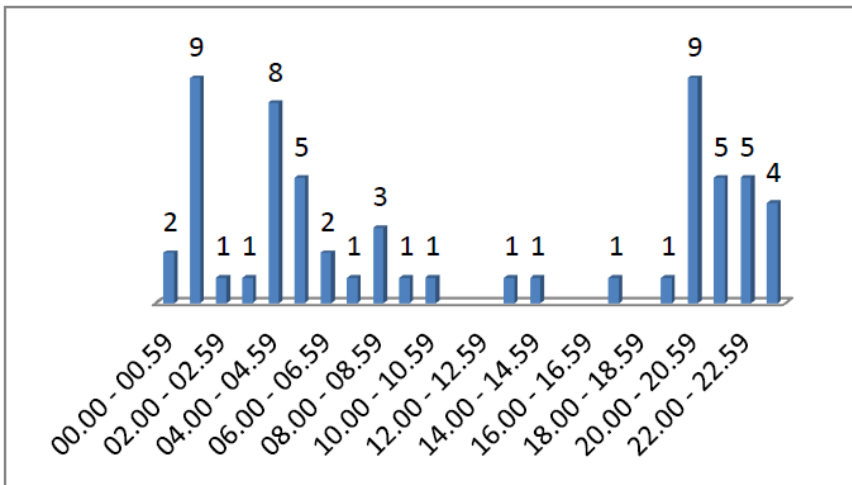


Figure 4. Active and inactive daily of wild boar in Denek Mountain: The active times of the wild boar and the number of maximum individuals in summer.

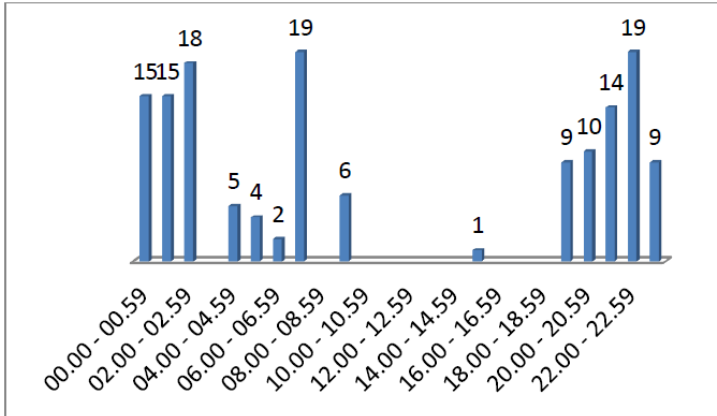


Figure 5. Active and inactive daily of wild boar in Özdere State Games: The active times of the wild boar and the number of maximum individuals in fall.

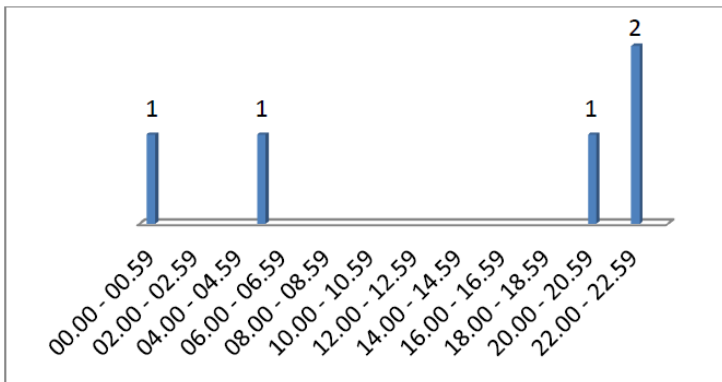


Figure 6. Active and inactive daily of wild boar in Küre Mountain II: The active times of the wild boar and the number of maximum individuals in fall.

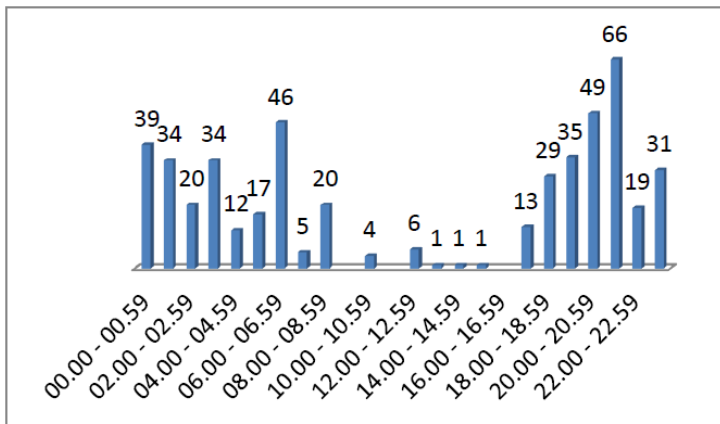


Figure 7. Active and inactive daily of wild boar in Küre Mountain II: The active times of the wild boar and the number of maximum individuals in fall.