

NATURE CONSERVATION AREAS PROTECTED UNDER VARIOUS STATUES IN THE CITY OF ERZINCAN

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Abstract

For more than a century, several countries have established conservation areas with various conservation statuses to protect their natural beauties and biological richness.

In this study, it is aimed to give information about the current state of protected areas and the conservation status in the city of Erzincan. Survey, data collection and analysis are used as method. In Erzincan Province, there are one natural monument, one Wildlife Development Area, one nature park, 3 units of 1st degree natural protected area, 1 nature of existence, 18 governmental hunting grounds, 7 general hunting's and one wetland (RAMSAR) in protected situated. Total areal size of protected areas is equal to 0,52% of areal size of Erzincan.

Key words: Erzincan, Areas of Nature Conservation, Conservation status, Wetlands

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INTRODUCTION

It is thought that the protection of natural areas starts with the history of mankind. For example, forests have been considered as holy and preserved and for this reason are seen as forest reserves (Kurdoğlu, 2007). The first modern concepts of protection were seen in the early 1800s and in the 1900s nature conservation was adopted as a discipline (Dudley et al., 2005; Dudley, 2008). The first conservation activity over an area began in 1872 with the declaration of the Yellowstone National Park in the United States for the first time (Yücel, 1999; Şen and Erkan Buğday, 2015). Protected areas (national parks, wildlife conservation areas, wild areas, etc.) are the result of national and international nature conservation strategies and can be defined as the cornerstones of nature conservation.

Total surface area of these areas was 2.4 million km² in 1962 all over the world (Emerton et al., 2006; Ervin et al., 2010; WCMC, 2010) while according to 2010 data, 147 thousand protected areas covered more than 13% of the earth surface, which is equal to an area larger than the Africa continent. Today, there are approximately 200 thousand protected areas around the world accounting for 14.6% of the surface of the mainland and 2.8% of the oceans (IUCN, 2014). It was in 1956 that the concept of national park related to territorial protection took place in laws for the first time in Turkey thanks to the Article 25 of 6831 Forestry Law put into effect in the same year.

Starting with the enforcement of the law in 1958 in Yozgat Pine Grove National Park has been recognized as Turkey's first national park. Today the protected areas with national status in Turkey other than those protected in the scope of National Parks Act 2873 are as follows;

Enclosure forests, Gene protection forests, Seed stands, In-forest resting places, Seed gardens, Wildlife development sites, Wildlife conservation areas, Aquaculture production sites and Protected areas.

In addition, the international conservation status is also specified in the contract, including the Turkey is a party;

World Heritage Sites, Special Environmental Protection Zones, Emerald Network Areas, Wetlands, Ramsar Areas, Biosphere Reserve and Natura 2000 Fields.

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Status of protected areas in Turkey, is determined not by a single law that support and complement each other in relation to several law. These are the Forest Law No. 6831, Aquaculture Law No 1380, Environment Law No 2872, National Parks Law No 2873, Law on the Protection of Cultural and Natural Property No. 2863 and Land Hunting Law No. 5915. Also, party to international agreements determined by the status of protected areas in Turkey are also included. These;

- Biogenetic Reserve Areas,
- World Heritage Sites
- Biosphere Reserve Areas.

The number and the surface area of nature conservation areas in various statues in Turkey are shown in the graphs below. The distribution of nature conservation areas in the country is shown on the map below. As can be seen from the map, the protected areas are mostly concentrated in the regions of Turkey, i.e. Mediterranean region, Eastern Anatolia and the interior parts of Marmara.



Figure 1. Map of Turkey protected areas (Anonymous 2019).

In the study, firstly the term nature conservation and its historical development are mentioned. Then the state of conservation concept in the world and Turkey was evaluated. The agreements that our country is a party to and the status of the protection areas based on them are also mentioned.

MATERIAL AND METHOD

Material

Erzincan lies on a plain surrounded by high mountains in the Upper Euphrates Section of the Eastern Anatolia Region (39 02'- 40 05' N 38 16'- 40 45'E). The province of Erzincan is surrounded by Giresun, Bayburt and Gümüşhane in the north Tunceli, Malatya and Elazığ in the south, Erzurum and Bingöl in the east and Sivas in the west (Gündüz et al., 2011) (Figure 4). Surface area of the province is about 11.903 km². the province covers totally nine districts, city centre, Kemah, Kemaliye, Otlukbeli, Refahiye, Tercan, Çayırılı, Üzümlü and İliç. The province topography is composed of mountains and highlands. Step formation is dominant in natural vegetation cover of the province. Scotch pine forests are present in Refahiye district. Oak groves can be seen in other parts of the province. Sixty percent of the land in the province is covered by steppes (Anonym, 2012).

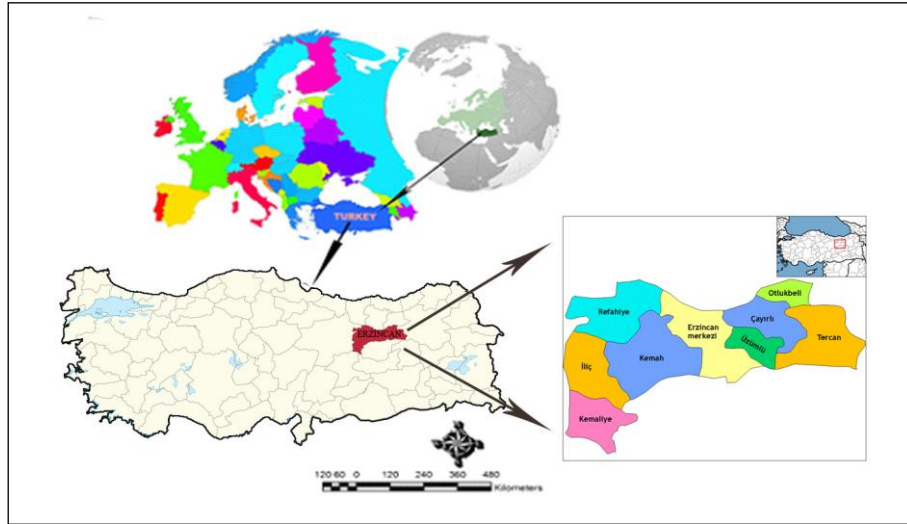


Figure 2. Research area.

The protected areas within the boundaries of the study area, Erzincan province constitute the main material of the study.

Method

In the study, the data related to conservation areas were used being obtained from Erzincan Office of Forestry and Water Affairs serving under 13th Regional Administration of Nature Conservation and National Parks in the body of the General Directorate of Nature Conservation and National Parks in the Ministry of Forestry and Water Affairs. Authorities from 13th Regional Administration of Nature Conservation and National Parks and Erzincan Office of Forestry and Water Affairs were also interviewed to collect data. The protected area inventory of the city was collected, the general characteristics of these areas, the status of conservation, the characteristics of the area under which they were covered and the recreational activities already carried out in these areas. The current status of protected areas in Erzincan province has been tried to be explained according to all information obtained.

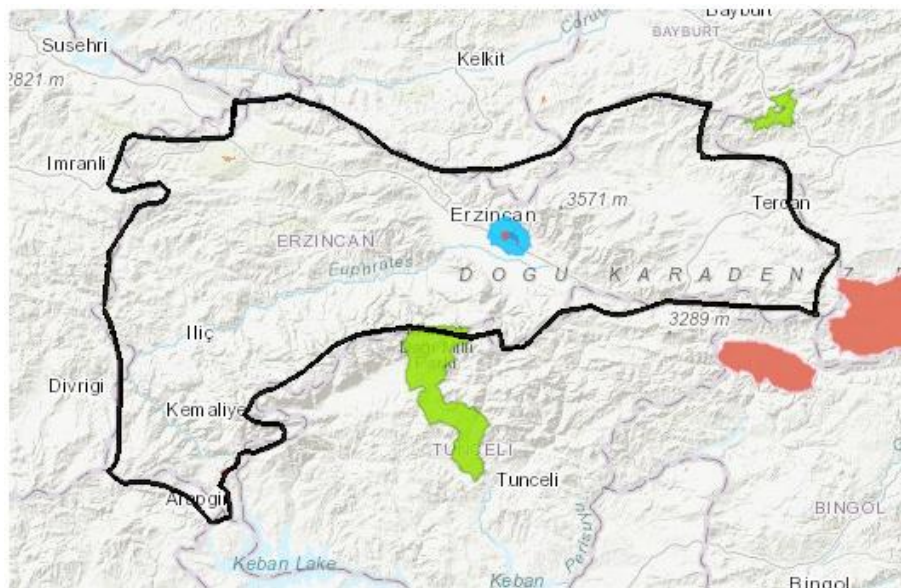


Figure 3. Map of protected areas in Erzincan province.

FINDINGS

Protected areas in Erzincan province are managed by 13th Regional Administration of Nature Conservation and National Parks. The total surface area of the protected areas in the city is 3.763.0 decares and the ratio to the province area is 0.4% (1.0 decare TA, 3.762 decares Çat wildlife development site). There are so many protected areas in Erzincan with different conservation status. These;

- 1 natural monument,
- 1 nature park
- 3 units of 1st degree natural protected area
- 1 wildlife development area,
- 18 state hunting grounds,

- 7 general hunting grounds,
- There is 1 animal care facility,
- 1 nature of existence.

Natural Monument:

Scented juniper tree, located in the Akçalı Village of Kemaliye District, is more than 500 years old and has a diameter of 1.6 m, a circumference of 5 m and a height of 11 m. The area of 1.0 decares in the region was declared a Natural Monument on 06.09.2002.



Figure 4. Nature monument in Erzincan.

Nature Park: The area of 497 decares, which is 1 km away from the city center of Erzincan province, was declared as Esentepe Nature Park on April 13, 2018 due to its landscape character and recreational characteristics.



Figure 5. Erzincan Esentepe Nature Park.

Natural Sit Areas:

Ekşisu Marshes: The area lying in the borders of Erzincan city center and Üzümlü district is 8736 hectares. There are 258 plant taxons in the area five of which were determined to be endemic (*Allium sieheanum*, *Gladiolus halophilus*, *Isatis spectabilis*, *Sonchus erzincanicus*, *Anthemis wiedamanniana*). In addition, 7 mammals, 5 reptiles, 2 amphibian, 90 bird species were identified.



Figure 6. Erzincan Ekşisu Reed.

Girlevik Waterfall: Girlevik waterfall sources from Munzur mountains extending between Erzincan and Tunceli as the part of Taurus mountains.

Girlevik Waterfall is formed by natural water flows sourcing in Kalecik village and consists of three layers. It is surrounded by trees and grassy species and its area is natural sit with 1st importance degree.



Figure 7. Erzincan Girlevik Waterfall.

Otlukbeli Lake: The lake is 6 km from Otlukbeli district centre around which an important battle was performed. Its surface area is 6500 m² and depth is 15-19 metre and it is among the most charming points of Erzincan. The lake still forming geologically has travertines. According to a 1990 study, Otlukbeli lake is a unique lake in Turkey due to the finding that travertines are not formed from normal karst sources but from mineral waters. A set was formed by mineral water coming up to surface. With its unique features the lake is only one in the world and protected as natural monument. The lake was declared in 1994 to be natural sit area to get under protection.



Figure 8. Erzincan Otlukbeli Lake.

Wildlife improvement area: Erzurum Çat wildlife development site in Tercan district (covering 3.762 decares) was declared in 16.10.2005 to be wildlife improvement area and its target species is wild goat.



Figure 9. An image from wildlife development site in Erzincan.

State Hunting Areas:

- **Cimin State Hunt:** It is within the boundaries of Üzümlü District. The area is 682.286 decares.
- **Smoky State Hunt:** It is within the borders of Refahiye District. Its area is 430,943 decares.
- **Baglic State Hunter:** It is located within the borders of Ilıc District. The area is 491.684 decares.
- **Çayyaka State Hunter:** It is within the borders of İliç District. The area is 313.678 decares.
- **Kapıkaya State Hunter:** It is within the borders of İliç District. Its area is 523.432 decares.
- **Montenegro-Çatalarmut Hunter:** It is located within the boundaries of Erzincan Merkez and Kemah District. The area is 894.691 decares.
- **Kazankaya State Hunter:** It is within the boundaries of Erzincan Central District. Area is 605.089.
- **Acemoğlu State Hunt:** It is within the boundaries of Erzincan Merkez and Kemah District. Area is 825.497.
- **Akça State Hunter:** It is within the boundaries of Kemah District. Its area is 596.117 decares.
- **Munzur State Hunter:** It is within the boundaries of Erzincan Central District. The area is 342.320 decares.
- **Dutluca State Hunter:** It is within the borders of Kemaliye District. Its area is 671.714 decares.
- **Doğandere State Hunt:** It is within the borders of Refahiye District. Its area is 457.874 decares.
- **Kızıldağ State Hunt:** It is within the borders of Refahiye District. Its area is 390.147.
- **Orçul State Hunting:** It is within the borders of Refahiye District. Its area is 615.379.
- **Sansa Hunter:** within the borders of Üzümlü District. The area is 147.379 decares.
- **Sarıçiçek State Hunter:** It is within the borders of Kemaliye District. Its area is 478.755 decares.
- **Abrenk State Hunter:** It is located within the borders of Tercan District. The area is 389.018 decares.
- **Volcano Government Hunt:** It is located within the borders of Tercan District. Area is 201.016 decares.

General Hunting Areas:

- **Çataksu General Hunt:** It is within the boundaries of Çayırılı-Tercan County. The area is 300.279 decares.
- **Found General Hunt:** Çayırılı is within the boundaries of the District. The area is 320.270 decares.
- **The General Hunter of Yedigöller:** It is within the boundaries of Çayırılı District. The area is 419.716 decares.
- **Keklikkayası General Store:** Erzincan Merkez. It is within the boundaries of the district. Its area is 308.920 decares.
- **Otlukbeli General Hunt:** It is within the borders of Otlukbeli Town. Its area is 433.785 decares.
- **Begendik General Hunt:** It is located within the borders of Tercan County. The area is 444.924 decares.
- **The General Farmer-General:** It is within the borders of Tercan County. The area is 335,550 decares.

Natural assets: Ala cave involves tunnels and canals in the northeast of Kemaliye district.

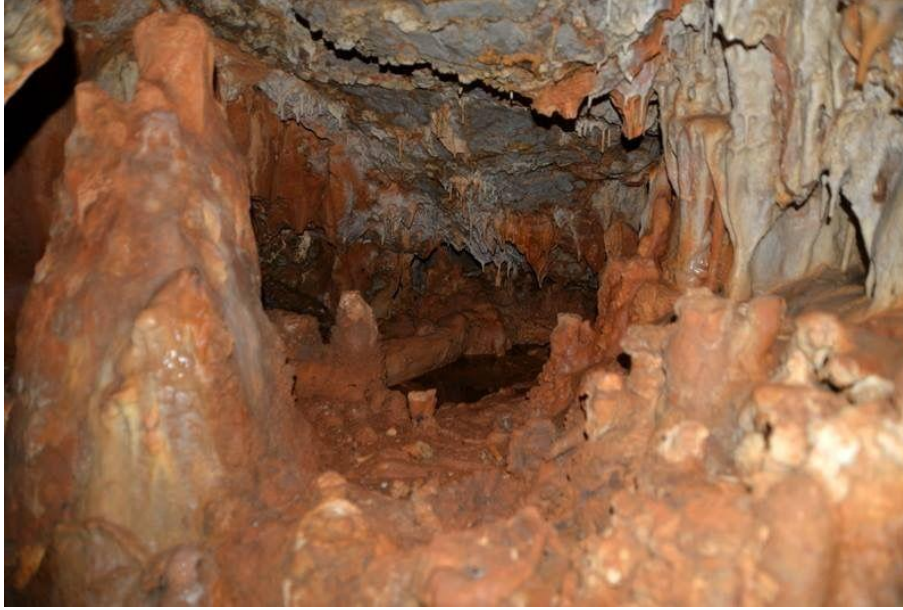


Figure 10. Erzincan Ala Cave.

RESULTS

An area of 3763.0 da within the borders of the province of Erzincan is protected by various statues. Total of these areas are responsible for 2% of Erzincan's forest areas and 4% of whole surface area of the province. Total surface area of the protected land in Turkey accounts for 7,24% of whole area. This rate in Erzincan is lower compared to that of the country. Total mean surface area of protected land in Turkey per capita is 0,08 ha while in Erzincan it is 0,17 ha, which is above country's mean. When considered Erzincan's protected lands, they are mainly natural sites.

These areas are protected due to their natural, cultural or historical characteristics. One of the protected areas in the city is the hunting areas. There is a total of 25 hunting areas, 18 of which are state controlled hunting area and 7 are general hunting area. Thanks to these areas, the city gains significant revenues from hunting and nature tourism. Furthermore, Çat wildlife development area, which covers the provinces of Erzincan and Erzurum, is one of the most important protected areas of the Erzincan province. Ekşisu marshes, Girlevik Waterfall, Beytahtı Recreation Area, Otlukbeli Lake are among the important recreation areas of the city. The reason for the emergence of the protected areas is the decline of biological diversity. Over grazing, pollution and waste, invasive species, illegal hunting, uncontrolled tourism are among the main threats to biodiversity conservation. Species, habitats and ecosystems must be protected against these threats. Protected areas contain important sites for conservation of biological diversity and vital functions for living things. Therefore, to ensure the sustainability of biodiversity, the number of protected areas needs to be increased (Küçük & Ertürk, 2012). Erzincan province is also one of the places where protected areas and other areas have been damaged due to various pressures, misuse and excessive use. For this reason, the development of natural resources should be ensured and structures should be improved and more areas should be protected in other statuses by preserving new areas in order to protect both existing biodiversity and to protect and develop the structures of existing areas.

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