



THE ECOTOURISM POTENTIAL OF KÜTAHYA PROVINCE

Ali ÖZEL¹, Nurdan KESER²

Abstract

The aim of this study is to evaluate the ecotourism potential of the province of Kütahya, which is famous for its traditional china and porcelain products and thermal tourism facilities. According to archaeological findings, its oldest settlement dates back to **the** Hittite period (1800 BC). Kütahya was under Phrygian, Lydian, Persian, Alexander the **Great's**, Roman, Byzantine, German and Ottoman control successively. The most recent history of Kütahya involves the most important stages of the Turkish Independence Struggle. The research area has numerous **artifacts** and ruins of this rich cultural past, two of which are the Phrygian Valley and Aizanoi **ancient** city, where cultural **artifacts** of very ancient **peoples** and natural ecosystems rest side by side. Moreover, one can also often see the historical Kütahya mansions with their distinctive architecture and ancient streets lined with centenarian trees. The research area, mostly composed of mountains and plateaus, is very convenient for nature-based tourism. **This is due to** its interesting surface features developed on a tuff, rivers suitable for various water sports **because of** its favourable valley and flow characteristics and such geomorphologic characteristics as cold and geothermal water springs. 52.97% of the province is covered with forests. It has various monumental trees and diverse endemic species of plants **spread** over a large area. One of those trees is Pyramidal Black Pine, which is endemic to Anatolia and **covers** the largest range. Besides the endangered Great Bustard, certain birds of prey whose numbers have diminished a lot – **for example the** Black Vulture with its **largest** population in the Türkmen Mountains - also live in the virgin forests of **the** Murat, Eğrigöz and Türkmen mountains. As a result of the study, the magnificent cultural and natural tourism assets of the Kütahya are presented and its splendid ecotourism activities are **recommended**.

Key Words: *Ecotourism, Kütahya, The Phrygian valley, Great **Bustard**, Pyramidal Black Pine*

Introduction

Kütahya, is between **the northern latitudes** of 38°70'-39°80' and **eastern longitudes** of 29°00'-30°30' in the **interior western Anatolian** part of **the** Aegean Region of Turkey (Figure 1). The paper consists of three parts; the first and second present the natural and cultural characteristics of the area and the third **one** evaluates its potential **for** ecotourism activities. It was determined from the findings, gathered **by a review of the literature** on the relevant characteristics of the research area and **an** analysis of these characteristics under geographical principles, that Kütahya **with its** mountainous areas and forests has a high potential **for ecotourism; especially for areas such** as botany, ornithology and tableland tourism. Moreover, its cultural heritage and authentic features are also rich enough to support nature-based tourism.

Environmental Characteristics

Geomorphologic Characteristics: Kütahya is like an edge at the transition point from the Central Anatolia **Basin** to the Aegean. The 11.875km² of the province is composed of 57.5% mountains, 31.5% plateaus **and** 11% plains (Kütahya Valiliği, 2005). Its average altitude is 1200m and **more than three fourths of it** is 1000-1500m undulating terrain (Dönmez, 1972). **The mountains** and plains among them extend **in a** NW-SE direction. The Kütahya **Plain**, which also contains the city centre, is within the **the province's northwest**

¹ Dumlupınar University, Education Faculty, Central Campus / Kütahya. aliozel2002@yahoo.com

² Dumlupınar University, Education Faculty, Central Campus / Kütahya. kesernurdan@yahoo.com.tr

borders. The mountainous areas around Kütahya is **made up** of Yellice Mountain (1764m), Gümüş Mountain (1901m), Murat Mountain (2312m), Şaphane Mountain (2121m), Simav Mountain (1800m) in the south; Yeşildağ Mountain (1533m) in the north; Türkmen Mountain (1829m) in the east; Eğrigöz Mountain (2181m) and Akdağ Mountain (2089m) in the west. The depressions among these mountains are **the** Kütahya, Köprüören, Tavşanlı, Altıntaş, Aslanapa, Gediz, Simav and Örencik **Plains**. The mountainous areas are composed of mainly Palaeozoic shales and limestones. The surface material is mostly made up of terrestrial and volcanic complex of Neogene formations. The Neogene series start with conglomerate and sandstones at the base and continue with marl, limestone and tuff layers. In the plain areas, on the other hand, ancient (Pliocene) and recent alluvials (Quaternary) exist (DSİ, 1981; MTA, 1989).

Akdağ Mountain It extends in a NE-SW direction on the **northwest** of the Simav graben. The peak of this massive, whose elevation difference from the base of **the** Simav depression is 1300m, is the Namazlıtaşı Hill (2089m). The creeks flowing that form narrow and deep gorges through the hillsides are the branches of **the** Kocadere and Simav Streams, which come from the peaks of Akdağ Mountain (Erer, 1977). There are erosion surfaces at 1150-2000m and 850-950m. There are also fresh water springs **mostly** at high elevations. The hillsides are densely covered with **Balcak Pine** and **Beech**.

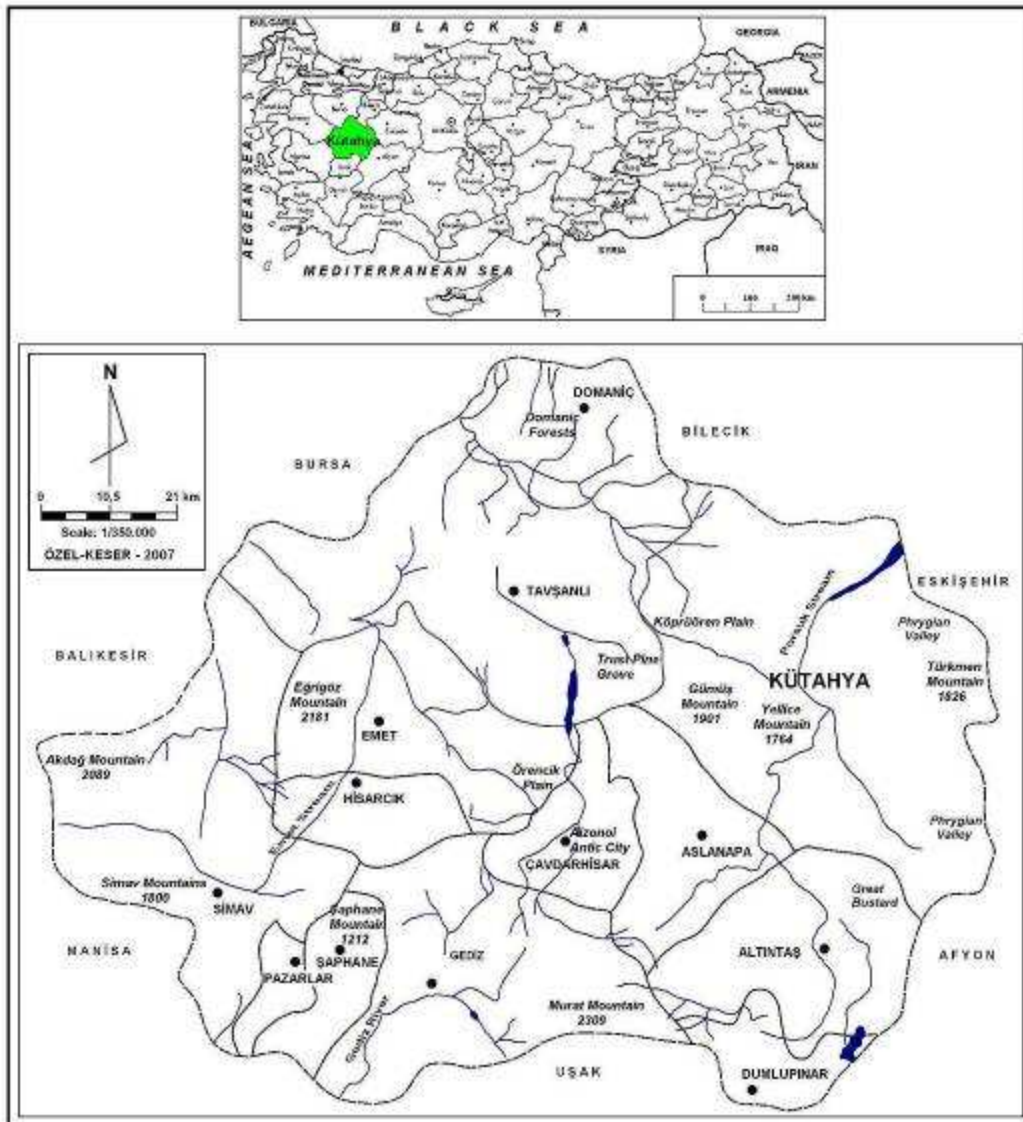


Figure 1. Location map of Kütahya Province



Eğrigöz Mountain: This massive lies in a north-south direction on the northeast of the Simav depression. It has a tableland characteristic dissected deeply by rivers. The peak is 2181m. The rivers along the sides, that form canyon valleys at times, are the tributaries of the Emet, Kocaçay and Simav streams. There are erosion surfaces at the same elevations, which are the continuance of those in Akdağ Mountain. Besides fresh water springs at higher elevations, there are also hot water springs along the sides of the Simav depression. The thermal springs along the fault line bordering the Simav graben from the west are concentrated between the towns of Eynal and Naşa. The dense vegetation composed of Scotch Pine and Black Pine on the mountain has 8% endemic flora (Erer, 1977; Görk, 1982).

Simav Mountain: It forms the northern part of Saruhan-Menteşe massive and borders the Simav graben on the south. The Sındırgı extension of the mountain that extends in a NW-SE direction is called the Demirci Mountains, whose peak is Ziyaret Hill (1800m). The foot of the mountain is covered with forests of Black Pine, Chestnut, Beech and Oak species. 9% of the vegetation is composed of endemic species (Yayıntaş, 1985). Along the sides, there exist short, but strong rivers which form narrow and deep valleys and feed the Simav Stream. There are also erosion surfaces at 1500-1200 and 900m (Erer, 1977).

Yellice Mountain: (bold) It extends in an E-W direction in the south of Kütahya Plain. Its peak is İncebel Hill (1764m). The streams along the sides join the Porsuk Stream and its branches, the Felent and Söğütözü Creeks. The sides of the mountain are covered with dense vegetation of Juniper and Black Pine. There are probably Miocene and Upper Neogene erosion surfaces at 1100-1150 and 1250-1300 metres on the mountain which continue over Gümüş Mountain to the west (Dönmez, 1972).

Gümüş Mountain: This mountain is to the west of Yellice Mountain, which is on the south of Kütahya Plain. Its peak is Nalbant Hill at 1901m. It extends in a NW-SE direction and forms steep gorges due to the Kütahya-Demirciören fault that runs along the south of the mass (Ardel-Kurter, 1958-1959). There are narrow and deep straits along its sides, formed by the branches (tributaries??) of the Kocasu and Felent Streams. On the higher parts of the mountain are the Scotch Pine and Black Pine forests, but on the lower plateaus there are Oak trees (Dönmez, 1972). 12% of the vegetation on Yellice and Gümüş Mountains are endemic (Akan, 1995).

Türkmen Mountain: It lies in the east of Kütahya Plain in a NW-SE direction. It is 1826m high. The sides of the mountain, which are plateaus in character, are cut deeply by the branches of the Porsuk Stream. The higher areas are covered with Scotch Pine and Black Pine, whereas the lower parts are with Quercus cerris. The tops are bleek erosion surfaces (Dönmez, 1972). It has a rich wildlife. Its peak is Kartal Hill (2309m). It is drained by the branches of the Murat Stream. In the northwest of the mountain exist two glacial-based cirque lakes: one in Gölyeri (1750m), which becomes a marshland in summer; the other is Kuzu Lake (1900m) in the southeast (Yalçınlar, 1970). 13% of the vegetation are endemic and Black Pine is the dominant species of the rich flora (Çırpıcı, 1988). The mountain is also rich in wildlife, having a deer-breeding station and is included in the Important Bird Sanctuaries of Turkey (ÖKA). There are also thermal facilities for tourism.

Hydrographic Characteristics: Some of the rivers in the research area are the Susurluk Stream and its branches - Simav Creek, Emet-Kirmasti Creeks and Kocasu (Adırmaz) Creek flowing into the Marmara Sea; Porsuk stream; the branch of the Sakarya Stream flowing into the Black Sea; Gediz River and its Murat Stream branch flowing into the Aegean Sea. The longest one in the area is Porsuk Stream (70km), comprising 2/3 of the water in the area with its branches. The rivers of the area are generally short and show compatibility with tectonic lines (Darkot-Tuncel, 1995; Dönmez, 1972). Their currents have never been very strong (Porsuk 8.1m³/sec, Kocasu 6.5m³/sec). The strongest currents come in March, when the snow starts to melt, and in this period the flow of the Porsuk is 16.7m³/sec and that of the Kocasu is 12.6m³/sec. In August, due to little precipitation and intense evaporation, the flow is at the minimum level (Dönmez, 1972). Besides the dams of Kayaboğazi, Enne, Söğüt, Hisarcık and Çavdarhisar in the region, there are also 21 small lakes. Kütahya is really rich in geothermal springs, and the temperature of the water in the health spas is between 25.2°C-97°C (Kütahya Valiliği, 2006).



Climatic Characteristics: The climate in and around Kütahya is a transitional type, between the Aegean and Central Anatolia Regions (Dönmez, 1972). The annual average temperature is about 10.5 °C. The lowest average temperature is in January (0.3°C), and the highest is in July (20.4°C). The average **annual** precipitation in the plain is 547.2mm (DMİ, 2002). The main factor in the spread of precipitation is elevation, which means that the mountainous areas get the most precipitation (Dönmez, 1972). The rainiest month in the area is December (79.7mm), while the driest one is August (16.1mm). The annual number of snowy days is 79.7 (October 0.3, November 5.4, December 15.9, January, 20.5, February 18.7, March 14.7, April 3.9, May 0.3 days). Due to the continental effect, the snow does not melt instantly; thus 40.7 days pass under snow (November 1.7, December 8.6, January 14.4, February 9.8, March 5.5, April 0.6, May 0.1 days). The direction of the wind in and around Kütahya is WNW, in conformity with the character of the **action? (active)** centres effective in the country and in accordance with the orographic tracks of the area. In winter however, due to the change in pressure centres, the SSW wind is dominant (Özel, 2001; Keser, 2002). The climate of the research area is appropriate for tourism, except for the months **with a high number of snow days**.

Vegetation Characteristics: Due to the climate of the area, the vegetation has the characteristics of the Mediterranean, Black Sea and Central Anatolia. The vegetation around Kütahya can be grouped as semi-humid and dry forests **and Mediteranean** scrubs and steppes (Dönmez, 1972). 52.97% of its area is covered with forests (611.592.000ha) and is **considerably** above the Turkish average of 27.22% (Ministry of **Forestry** web site, 2007). Among the natural conservation areas are **the Vakıf Çamlığı-Trust** Pine Grove (Tavşanlı), Kaşalıc (Domaniç), Yellice Mountain, Gümüş Mountain, Şaphane Mountain, Murat Mountain, Türkmen Mountain, Simav Mountain, Eğrigöz Mountain and Başkomutan Tarihi Milli **Park-Chief** Commander Historical National Park.

In terms of vegetation types, the area is rich in endemic species, as it is a transition point between the Mediterranean, **Iran-Turan** and Europe-Siberia phytogeographic areas (Tatlı-Tel, 2000). Most of these types have medical and **economic value**, and known to the inhabitants for thousands of years. In **botany**, the word "endemic"- in Latin Endemos (=Native) - means very rare, local species belonging to a specific country or a region (Akman, 1993). Within the borders of Kütahya, there are 282 endemic species belonging to 40 families. (Tatlı-Tel, 2000) 11 **grow in Kütahya, which is the only place in the world where they grow and** 48 are also **spread** throughout the Aegean Region. The place with the most endemic vegetation is Murat Mountain with 114 species, three of which only exist there. Also, Eğrigöz, Şaphane and Domaniç Mountains are rich in endemic vegetation. The forest known as Tavşanlı Vakıf Çamlığı (Trust Pine Grove) has 12.4% endemic vegetation. The area stands out as the only place hosting the endangered Pyramidal **Black Pine** (*Pinus nigra* ssp. *Pallasiana* var. *Pyramidata*) (Yücel, 1994). Furthermore, another endemic variety of Ebe **Pine** (*Pinus nigra* ssp. *Pallasiana* var. *Şeneriana*) exists there **as well**. **Thus**, a unique ecosystem prevails in the area (Küçükkaraca-Tatlı, 1999) which is 45km to the centre of Kütahya and 30km to Tavşanlı, and was declared as **a** Natural Conservation Area in 1988.

The research area is really rich in monumental trees. A monumental tree is supposed to "exceed the ordinary age, size and height of its kind; have a special place in the history, culture and folklore of the area **and** have a natural lifespan to provide communication between the past and the future" (Asan, 1991; Anonymous, 1998). Within the borders of Kütahya **exists** 127 monumental trees, 59 of which **are Sycamore**. The ages of these trees change as follows: **Sycamores (100), Black Pine (300-600), Oak (400-800), Juniper (550-1000) and Chestnut (700-1000)**. These are found in **the** Eğrigöz Mountain-Sarıalan Plain, Simav-Korucuk Plain, Tavşanlı, Domaniç and Türkmen **Mountains** (Tatlı et al., 1999; Kütahya Valiliği, 2000). One of them, with specific **historical** importance **for the** country, as well as its mystic and folkloric significance, is "Mızık Pine". According to the tradition, Mızık **Pine** is the tree on which Hayme Ana, the grandmother of Osman Bey (founder of the Ottoman Empire) used to hang **his** baby swing and **sing** him lullabies (Asan, 1999). It is found in the Domur village of Domaniç, with its 11m height and **155 diameter**. It **was** a **Black Pine that was** blown down by a strong storm on **October 26, 1988** (*Pinus nigra* Arn.), **which had** lived from 1109 to 1977, when it dried at the age of 870 (Tayhan, 1999).



Wildlife: The research area is rich in wildlife thanks to the vast forests. Wolves, jackals, fox, deer, bears, wild pigs, rabbits and hares, badgers, erinaceous, wild ducks, sandpipers, quails and partridges are the ones which are known to exist. Moreover, there are carb, mullet, trout and cat fish in the dams and lakes in the province (Kütahya Valiliği, 2005). **It is permanently forbidden to hunt in** Türkmen Mountain, Domaniç Forests and Şaphane Mountain, which allows **there to be** rich wild life in vast forests. There are Conservation and Breeding Areas for Wildlife and Game Animals in the province; **these** are **the** Tavşanlı-Çatak, Gediz-Murat Mountain and Türkmen Mountain-Sabuncupınar deer breeding farms (Kütahya Valiliği, 2006). Murat Mountain, Türkmen Mountain and Altıntaş Plain are among the Important Bird Sanctuaries (ÖKA) of Turkey. **Within them** are vulture species: at least 2 couples of Black Vulture (*Aegypius monachus*), 2 couples of Golden Eagle (*Aquila chrysaetos*) and 1 couple of Lammergeier (*Gypaetus barbatus*) **are** in Murat Mountain. At least 40 individuals of Great Bustard (*Otis tarda*), known as the largest bird flying over Altıntaş **Plain**, are capable of breeding today. This plain is the last breeding area for this bird, and thus was declared as a conservation area in 1993. Besides the conservation precautions, the number of this bird has increased through the efforts of the villagers, who cultivate the seeds **it** prefers. It is also known that in Türkmen Mountain at least 5 couples of Black Stork (*Ciconia nigra*), 22 couples of Black Vulture, 2 couples of Imperial Eagle (*Aquila heliaca*), 1 couple of Lesser Spotted Eagle (*Aquila pomarina*) and 5 couples of Booted Eagle (*Hieraaetus pennatus*) still continue breeding (Yarar-Magnin, 1997; www.sifiryokolus.org). The largest known population of Black Vulture lives there. In addition, it is estimated that in Türkmen Mountain, where human intrusion is very little, Honey Buzzard (*Pernis apivorus*), Griffon Vulture (*Gyps fulvus*), Short-toed Eagle (*Circaetus gallicus*), Sparrowhawk (*Accipiter nisus*), Buzzard (*Buteo buteo*), Hobby (*Falco subbuteo*) and **Peregrine** (*Falco peregrinus*) species also carry on breeding (Yarar-Magnin, 1997). Türkmen Mountain is a Natural Wildlife Conservation Area and an Archaeological Site. According to ÖKA criteria, among the bird species observed in the research area, Great Bustard, Black Vulture and Imperial Eagle are considered to be endangered around the world (A1), and the others are considered to be high priority in preservation across Europe (B2) (Kiziroğlu, 1989; Yarar-Magnin, 1997; www.sifiryokolus.org).

The Characteristics of the Cultural Environment

Historical Development of the City: The city, with **its seven thousand year history**, is said **in ancient sources** to be the birth place of Aesop. It is known from the coins found in archaeological excavations that the name of the city in antiquity was “Kotiaion”; meaning the city of Kotys. According to the archaeological findings, the first settlements in the city **date** back to the first ages with the arrival of **the** Hittites. In the late 12th century BC, Phrygians came and wiped them out and dominated over the area. In 676 BC, the Kimmers dominated over the city after defeating the Phrygian King Midas III. During the reign of **Alyattes**, king of Lydia, the city fell to Lydians who demolished the Kimmer dominion. The Lydian rule lasted until the Persian occupation of Anatolia. After them, Alexander the Great ruled the area **beginning in** 334 BC. The area became a province of **the** Roman Empire in 133 BC after having been ruled by the Bitinia Kingdom (278 BC) and then by the Bergama Kingdom. The city functioned as a base for **the** patriarchate in this period and retained its importance through Byzantine times. The city then fell to the Anatolian Seljuks in 1078 and when they were destroyed in 1277, it began to be ruled by the Germiyanoğlu. After the death of the last Germiyanoğlu Ruler, Yakup II, the city was occupied by the **Greeks**. **However**, it **later** became the city where the **foundation** of the Turkish Republic was laid, as a result of the Final Assault victory starting on August 26th and ending on August 30th, 1922. Supreme Commander Mustafa Kemal ATATÜRK's base was in Kütahya-Zafertepe-Çalköy (Kütahya Belediyesi, 1981-1982).

Cultural Monuments: (bold) There are 188 archaeological sites, 2 urban sites, 2 historical sites, 19 archaeological and natural sites, 2 historical and urban sites, 3 historical and archaeological sites, 994 cultural and natural assets in one-building-scale in Kutahya, which has a **rich cultural** heritage.



Monuments of the Age of Antiquity: In the city centre and its towns, there are numerous ruins and relics dating back to the Chalcolithic period (5500-3500 BC). Water arches, bridges, tombs, monumental inscriptions, city walls, castles, temples and barrows can be seen in open areas. **In addition**, many more archaeological **artifacts** are displayed in museums.

Phrygian Valley: In this valley, at the 26th km of **the** Kütahya-Eskişehir highway, there are ancient settlements **formed by Phrygians** in the volcanic tuffs (Figure 2-3). The valley carried on its function in various ways during **the** Roman and Byzantine periods and can be analysed in two sections. In the north, around Sabuncupınar, Söğüt, İnli and Fındık villages, the first **section is composed of 2 churches in caves with frescoes decorated walls**. The second section is in the north around Ovacık village, with its tombs, churches, secret passages and **cave galleries** (Kütahya Valliliği, 2005).

Aizanoi Ancient City: This is an ancient Roman city founded along the banks of Bedir Creek in Çavdarhisar, 5km southwest of Kütahya (Figure 4-5). It is **a** contemporary **of the ancient cities of** Ephesus, Bergama and Side, with **the** first exchange market **in** the world and the most solid Zeus Temple (İktisadi Araştırmalar Vakfı, 2006).

Kütahya Castle: It was built in Roman times and used by Byzantines, Seljuks, **the** Germiyan Sultanate and Ottomans. The castle and its vicinity are thought to be the places where modern Kütahya was first built (İktisadi Araştırmalar Vakfı, 2006).

Seljuk, Germiyanoğlu and Ottoman Relics: The historical remains, mosques, small mosques, medressahs, social complexes, inns, bazaars **and** hamams are mostly of the Ottoman period. They are well-preserved and still carry on their functions.

Traces of the Republic Period: These are generally the restored and rehabilitated 17th and 18th century structures still used as touristic attractions, such as museums or national parks; among which are **the** Kütahya Kossuth Museum, Dumlupınar Atatürk House, Çinili Mosque **and** Chief Commander Historical National Park. Besides **the** Kütahya Archeological Museum and Kütahya China Museum, the restored unique 18th century Kütahya houses with their distinct architecture shed light on the history of Kütahya Germiyan Street.

Evaluation of the Ecotourism Potential

Tableland Tourism: The area is generally of tableland characteristics, thus it is suitable for tableland tourism. The erosion surfaces on the mountain tops **at** different elevations have been used by the inhabitants for ages as summer resorts. 51.6% of its population still leads a rural life and retains its authentic culture. The local settlers living around the tableland in forests and mountain villages still eat home-made bread, butter, jam, dried vegetables and fruits and have a rich local cuisine. Also, distinctive local hand-made rugs, carpets, and embroidery and many other folkloric attractions contribute a lot to tableland tourism. Besides Domaniç, Gediz-Murat Mountain, Simav-Gölcük, Emet and Aslanapa tablelands, the ones around the city centre are also suitable for tableland tourism.

Botanic Tourism (Plant Observation): Found only in Turkey in the world and with their largest dispersion area in **the** Tavşanlı-Trust Pine Grove, the endemic Pyramidal Black **Pine and Ebe Pine** have the potential to be **some** of the favourites of botanic fans all over the world (Figure 6-7). Moreover, with their 114 endemic plant species, Murat Mountain, Eğrigöz, Domaniç and Şaphane forests are very important plant-observation areas worth researching. In addition, numerous gigantic monumental trees, which **not only for the local inhabitants but also for the country's past**, have **mystical** and folkloric **value and** could be precious stations for plant enthusiasts.

Ornithology (Bird Watching): **With** Altıntaş **being** the last breeding plain for Great Bustard in **western** Anatolia; Türkmen Mountain **having** the largest Black Vulture population in Turkey and **also** Black Stork and Imperial Eagle; and Murat Mountain with **its populations of** Booted Eagle, Black Vulture, Golden Eagle and Lammergeier (all endangered species), make the area a **major candidate for** ornithology places **in** Turkey (Figure 8-9, 10-11).

Nature Walks: The area has splendid **trails** for nature walkers with its mountains, tablelands, hot and fresh water springs, rivers, rich fauna and flora, **along with** its various landscapes like valleys and chimney rocks. Murat Mountain, Eğrigöz Mountain, Akdağ, Simav Mountain, Türkmen Mountain, Domaniç and Tavşanlı forests and Phrygian Valley are all appropriate for **day** or long term visits **because of** their camping facilities.

Horseback Riding in Nature: Kütahya, Simav, Gediz Tavşanlı, Örencik, Altıntaş, Köprüören, **the** Aslanapa **Plains**, and the flat terrains in the forests are appropriate for exploration on **horseback**. **In particular**, **horseback** riding in **the** Phrygian Valley (Figure 3), where visitors can experience Phrygian traces on chimney rocks, caves and forests, **could** be an unforgettable experience for nature lovers.

Mountaineering and Climbing: The mountains in the area have steep gorges and valleys, mostly formed thanks to faulting on limestone. Simav, Akdağ and Eğrigöz Mountains **especially** have topographic slopes suitable for mountaineering and climbing.

Bike Tours: Murat, Türkmen and Eğrigöz Mountains **in particular**, but also all the other mountains in the area, have mountain-bike **trails** with various **levels of difficulty**, **offering** unique natural **beauty** and plenty of oxygen to bike enthusiasts.

Photo-safari: **With their interesting landscapes**, Murat Mountain, Türkmen Mountain (only **up** to a certain elevation in order not to disturb the wild birds of prey), Eğrigöz Mountain, Şaphane Mountain, the places around Domaniç and Simav, and the Phrygian **Valley** with its rich fauna and flora, are all appropriate **areas** for photo-safaris.

River Sports: The rivers of the area normally do not have **strong** currents; however, **during** periods when the neighbouring rivers **strengthen** in current, the foot of some mountains present a potential **for** rafting. It is in fact possible, **through the efforts of relevant offices**, to form rafting **treks** that will complement other activities such as tableland tourism. The Porsuk Stream is particularly suitable for canoeing with its valley and current characteristics (Figure 2).

Angling: At first glance, this activity might not fit in with tableland tourism; however, it is an activity that does not damage the natural **resources in the area** thanks to **specialty**-bred fish for this purpose. It can also **complement** the other touristic activities. **The** Porsuk and Enne Dam Lakes, as well as many others in the area, are suitable for angling with their specialty-bred fish.

Conclusion and Suggestions

1. It **has been** observed that the area in question has a high potential for ecotourism **because** of its natural characteristics. Among the important geomorphological characteristics of the area that could be useful for ecotourism activities, are its mountains and tablelands with their rich fauna and flora; unspoiled ecosystems **and** the **strait river valleys** with their large bottoms and their distinctive relief patterns in the tuffs. Besides **it** being suitable for various water sports, with its valleys and current characteristics, fresh water and geothermal springs give a hydraulic potential to Kütahya. The climatic conditions are favourable all year **round** except in December, January and February when the floor is covered with snow for days. The natural advantages of the area in terms of ecotourism are **the** endemic Pyramidal **Black Pine** and Ebe **Pine** forests and two important birds, **the** Great Bustard and Black Vulture, whose numbers have diminished **considerably** around the world. In this regard, the most suitable activities for ecotourism in the area are suggested to be botany and ornithology. In terms of ornithology, the Great Bustard breeding area (Altıntaş **Plain**), Black Vulture breeding area (Türkmen Mountain) and **the** home of many other birds of prey (Murat Mountain) are suggested to be appropriate for ecotourism. **Concerning** botanic tourism, **the** Pyramidal **Black Pine** and Ebe **Pine** ecosystems (Tavşanlı Trust Pine Grove) and **the homes** of many other endemic species (Murat Mountain, Eğrigöz Mountain, Domaniç and Şaphane Forests) are recommended. Also, **the** Phrygian Valley and Aizanoi **Ancient** City, where the cultural heritages from **distant** past ages are side by side with their natural ecosystems, are appropriate for almost all types of ecotourism activities - mainly for nature **walking**.

2. The area in question, half of whose inhabitants are still rural settlers, hosts a rich cultural heritage dating back to **the Chalcolithic Period** with its authentic culture and distinctive folkloric characteristics. It is thought that the rich cuisine, hand-crafts with sufficient motives, embroideries and authentic lives of the locals living on the tablelands are sufficient to satisfy the cultural and gastronomic interests of the visitors. The plain of Gediz-Murat Mountain, Simav-Gölcük **Plain**, Domaniç **and the** Emet and Aslanapa **Plains** are considered to be valuable for tableland tourism in the area. While the area is thought to be especially **promotable** for botany, ornithology and tableland tourism activities, it is suitable for nature-based tourism as a whole, as **described in the above details**.

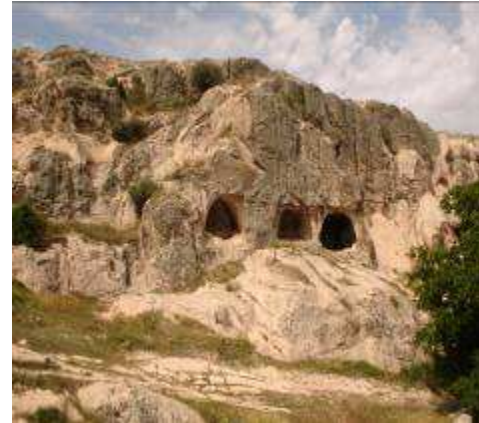


Figure 2- 3. Porsuk **Stream** and Phrygian Valley

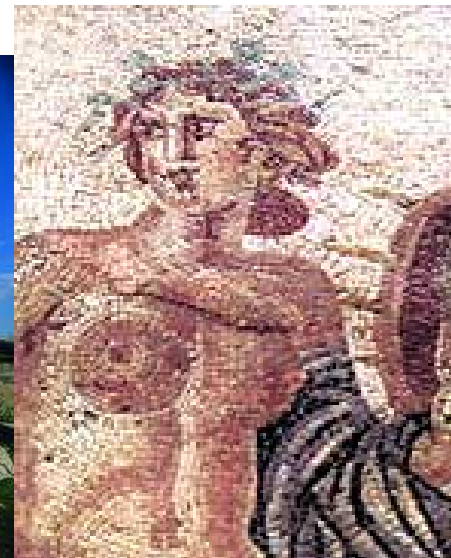


Figure 4- 5. Aizanoi **ancient** city



Figure 6- 7. Endemic variety Pyramidal **Black Pine** (*Pinus nigra* ssp. *Pallasiana* var. *Pyramidata*) and Ebe **Pine** (*Pinus nigra* ssp. *Pallasiana* var. *Şeneriana*)



Figure 8- 9. Great Bustard (*Otis tarda*)



Figure 10- 11. Black Vulture (*Aegypius monachus*)

References



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- AKAN, H., 1995, "Gümüş ve Yellice Dağları (Kütahya) Florası", Dumlupınar Üniv. Fen Bilimleri Enst. Yüksek Lisans Tezi (Yayınlanmamış), Kütahya. "The Flora of Gümüş and Yellice (Kütahya) Mountains"
- AKMAN, Y., 1993, "Biyocoğrafya", Palma Yayın Dağıtım, Ankara. "Biogeography"
- ANONYMOUS, 1988, "Korunması Gerekli Tabiat Varlıklarından Anıt Ağaçların Tanımı ve Korunması", Hakkında Karar, Kültür Bakanlığı, Kültür ve Tabiat Varlıklarını Koruma Yüksek Kurulunun 28.06.1988 tarih ve 25 no'lu kararı, Ankara. "The Definition and Conservation of Monumental Trees to be Preserved"
- ARDEL, A., KURTER, A., 1958-1959, "Kütahya ve Civarında Coğrafi Müşahedeler", Türk Coğr.Dergisi., Sayı: 18-19, İstanbul. "Geographical Observation in and Vicinity of Kütahya"
- ASAN, Ü., 1991, "Doğal ve Kültürel Miraslarımızdan Anıt ağaçlar ve Ormanlarımız", Yeşil Çerçeve Dergisi, Sayı: 6, s: 22-24, İstanbul. "Our Monumental Trees and Forests- Our Natural and Cultural Heritage"
- ASAN, Ü., 1999, "Anıtsal Karaçamlar", 1st International Symposium on Protection of Natural Environment and Ehlami Karaçam 23-25 th September 1999, p: 611-622, Kütahya. "Monumental Black Pines"
- ÇIRPICI, A., 1988, "Murat Dağı (Kütahya-Uşak)'nın Florası", Doğa Türk Botanik Bilim Dergisi, 13-2: 157-222 s. "The Flora of Murat Mountain (Kütahya-Uşak)"
- DARKOT, B., TUNCEL, M., 1995, "Ege Bölgesi Coğrafyası", İst. Üniv. Yay., No: 2365 (3.Baskı), İst. Üniv. Ed. Fak. Basımevi, İstanbul. "The Geography of The Aegean Region"
- DMİ, 2002, "Kütahya Meteoroloji İstasyonu Rasat Kayıtları", T.C. Başbakanlık Devlet Meteoroloji İşleri Genel Müdürlüğü Elektronik Bilgi İşlem Dairesi Başkanlığı, Ankara. "Observation Records of Kütahya Meteorological Station"
- DÖNMEZ, Y., 1972, "Kütahya Ovası ve Çevresinin Fiziki Coğrafyası", İst. Üniv. Yay. No: 1759, İst. Üniv. Ed. Fak. Matbaası, İstanbul. "The Physical Geography of Kütahya Plain and its Vicinity"
- DSİ, 1981, "Kütahya ve Köprüören Ovaları", Hidrojeolojik Etüt Raporu (Yayınlanmamış), DSİ Genel Müdürlüğü, Ankara. "Kütahya and Köprüören Plains"
- ERER, S., "Simav Depresyonu ve Çevresinin Jeomorfolojisi", İst. Üniv. Ed. Fak. Yay. No: 2028, İstanbul. "The Geomorphology of Simav Depression and its Vicinity"
- GÖRK, G., 1982, "Eğrigöz Dağı (Emet) Flora ve Vegetasyonu", Ege Üniv. Fen. Fak. Botanik Bölümü, Doktora Tezi, 119s. İzmir. "The Flora and Vegetation of Eğrigöz Mountain (Emet)"
- İKTİSADİ ARAŞTIRMALAR VAKFI, 2006, "Kütahya İlinin Ekonomik Gelişmesi", Seminer, s: 140-141, İstanbul. "Economical Development of the City of Kütahya"
- KESER, N., 2002, "Kütahya'da Hava Kirliliğine Etki Eden Topografik ve Klimatik Faktörler", Marmara Coğrafya Dergisi, Sayı:5; 69-100, İstanbul. "Topographic and Climatic Factors Effective in Air Pollution in Kütahya"
- KİZİROĞLU, İ., 1989, "Türkiye Kuşları (Kırmızı Listede Olanlar ve Buldukları Bölgeler)", Orman Genel Müdürlüğü Yay. Ankara. "Birds in Turkey (Those in the Red List and Their Locations)"
- KÜÇÜKKARACA, B., TATLI, A., 1999, "Ehlami Karaçam (Pinus nigra Arn. ssp. pallasiana (Lamb.) Holmboe. var. Pyramidata (Acat) Yaltrık.) Popülasyonunun Floristik Yapısı", 1st International Symposium on Protection of Natural Environment and Ehlami Karaçam 23-25 th September 1999, p:14-32, Kütahya. "The Floristic Structure of Pinus Nigra"
- KÜLTÜR VE TURİZM BAKANLIĞI İNTERNET SİTESİ.,2006, www.kultur.gov.tr "Web Site of the Ministry of Culture and Tourism"
- KÜTAHYA BELEDİYESİ., 1981-1982, "Atatürk'ün Doğumunun 100. Yılına Armağan, KÜTAHYA", Formül Matbaası, İstanbul. "A Gift to the 100. Anniversary of Birth of Atatürk"



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- KÜTAHYA VALİLİĞİ., 2000, "Kütahya'nın Anıt Ağaçları", T.C. Kütahya Valiliği Çevre Koruma Vakfı Yayını, Kütahya. "Monumental Trees of Kütahya"
- KÜTAHYA VALİLİĞİ., 2005, "Kütahya İli Turizm Envanteri ve Geliştirme Planı", T.C.Kütahya Valiliği İl Kültür ve Turizm Müdürlüğü Raporu (Yayınlanmamış), Kütahya. "Tourism Inventory and Development Plan for province of Kütahya"
- KÜTAHYA VALİLİĞİ., 2006, "İl Gelişim Planı", T.C. Kütahya Valiliği İl Kültür ve Turizm Müdürlüğü Raporu (Yayınlanmamış), Kütahya. "Province Development Plan"
- KÜTAHYA VALİLİĞİ İNTERNET SİTESİ, 2007, www.kutahya.gov.tr . "Web Site of Kütahya Governorate"
- MTA, 1989, "Kütahya-Çifteler-Bayat-İhsaniye Yöresinin Temel Jeolojisi", MTA Genel Müdürlüğü Jeoloji Etütleri Dairesi Raporu (Yayınlanmamış), Ankara. "Basic Geology of Kütahya-Çifteler-Bayat-İhsaniye Area"
- ORMAN GENEL MÜDÜRLÜĞÜ İNTERNET SİTESİ, 2007, "Türkiye'nin Toplam Orman Alanı İstatistikleri", www.ogm.gov.tr "The Statistics of Total Forest Area of Turkey"
- ÖZEL, A., 2001, "Yukarı Porsuk (Gökçay) Havzası'nın Coğrafyası", Marmara Üniv. Eğitim Bil. Enst. Sos. Alanlar Eğt. A.B.D. Doktora Tezi (Yayınlanmamış), s: 30-54, İstanbul. "The Geography of Upper Porsuk (Gökçay) Basin"
- SIFIR YOK OLUŞ İNTERNET SİTESİ, 2007, "Türkiye'nin Önemli Kuş Alanlarının 2004 Güncellenmesi", Doğa Derneği, www.sifiryokolus.org "2004 Updating of Important Bird Sanctuaries of Turkey"
- TATLI, A., KÜÇÜKKARACA, B., AKAN, H., 1999, "Kütahya'nın Anıt Ağaçları", 1st International Symposium on Protection of Natural Environment and Ehrami Karaçam 23-25 th September 1999, p: 623-637, Kütahya. "Monumental Trees of Kütahya"
- TATLI, A., MEMİŞ, R., AKAN, H., TEMEL, M., 1999, "Kütahya'da Yayılış Gösteren Endemik Bitkilerin Tehlike Sınıfları Açısından Değerlendirilmesi", 1st International Symposium on Protection of Natural Environment and Ehrami Karaçam 23-25 th September 1999, p: 280-294, Kütahya. "Evaluation of Endemic Vegetation of Kütahya with Regard to Endanger Limits"
- TATLI, A., TEL, A, Z, 2000, "Kütahya ve Çevresinin Bitki Örtüsü'ne Genel Bir Bakış ", Dumlupınar Üniv. Fen Bilimleri Dergisi, Yıl:1, Sayı: 1, s: 332-335, Kütahya "General Overview of the Vegetation in and around Kütahya"
- TAYHAN, A, A., 1999, "Domaniçteki Anıt Karaçam Üzerinde Dendrokronolojik ve Dendroklimatolojik Araştırmalar", 1st International Symposium on Protection of Natural Environment and Ehrami Karaçam 23-25 th September 1999, p: 259-268, Kütahya. "Dendrocronological and Dendroclimatological Researches on the Monumental Black Pine in Domaniç"
- YALÇINLAR, İ., 1970, "Batı Anadolu'nun Strüktür ve Rölyef Şekilleri Üzerine Müşahedeler", İst. Üniv. Coğr. Enst. Derg. Sayı: 9, s: 69-92, İstanbul. "Observation on the Structure and Relief Patterns of the Western Anatolia"
- YARAR, M., MAGNIN, G., 1997, "Türkiye'nin Önemli Kuş Alanları", Doğal Hayatı Koruma Derneği Yay. İstanbul. "Important Bird Sanctuaries of Turkey"
- YAYINTAŞ, A., 1985, "Simav Dağı Florası", Doğa Bilim Dergisi, 9: 2 "The Flora of Simav Mountain"
- YÜCEL, E., 1994, "Ehrami Karaçamın (Pinus nigra ssp. pallasiana var. Pyramidata)'nın Tohum Çimlenme Ekolojisi", XII. Ulusal Biyoloji Kongresi 6-8 Temmuz, Edirne. "Germination Ecology of Pinus Nigra"