

## A NEW DISTRIBUTION AREA OF MONTEPELLIER MAPLE (ACER MONSPESSULANUM SUBSP. MONSPESSULANUM) IN TURKEY

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**Özet-** Bir Akdeniz elemanı olan *Acer monspessulanum* subsp.*monspessulanum* mevcut literatüre göre bu sahada ilk defa tarafımızdan bulunmuştur. *Acer monspessulanum* subsp.*monspessulanum*'un Eser vadisindeki yayılışı Türkiye'deki doğal yayılış alanlarında rastlanılmayan şekilde topluluk oluşturması açısından da önem taşır.

### I-INTRODUCTION

During vegetation geography studies we did at the upper Gediz basin in September 1995 we determined *Acer monspessulanum* subsp. *monspessulanum* on the western slopes of the Eser valley at the southern of Demirci which according to the present records is for the first time.

### II-MORPHOLOGICAL FEATURES AND GEOGRAPHICAL DISTRIBUTION OF ACER MONSPESSULANUM

*Acer monspessulanum* (Montpellier maple), a variety of maple tree is a genus of Aceraceae family. *Acer* species are formed mostly of deciduous and ligneous varieties and this is one of the 9 types (*A.trautvetteri*, *A.platanoides*, *A.campestre*, *A.divergens*, *A.monspessulanum*, *A.sempervirens*, *A.hyracanthum*, *A.tataricum*) found naturally in Turkey.

*Acer monspessulanum* with a broad crown, thick branches, rarely with smooth trunks is a deciduous tree or a small tree which can reach up to 5-12 meters in height but can also be found as in bush form at some regions. The leaf twigs are glabrous. The leaves are 3-8cm long, 3 lobed. Edges of these lobes are either straight or roughly jagged with blunt tips (Fig.1). Their leaves which redden in autumn are generally thick and hard with dark green upper and light green lower faces. The yellowish green flowers which flourish following the leafing form umbrella-like bunches with short shoots. Their fruits, which have a length of 1 to 2cm and look like small spheres slightly pressed from the side, mature in September. *Acer monspessulanum* have winged seeds and their smooth trunks in youthful stage regains a chapped appearance later. It has a dull wood which is used for making small hand tools and gift objects such as spoons, combs, trinkets, etc.<sup>1</sup> [1, 2]

Its general dispersal areas are the Northern, Central and

Southern Europe, Southwestern and Southern Anatolia, Caucasus, Northwestern and Southern Iran, Northern Iraq, Lebanon and Syria. *Acer monspessulanum* which is a Mediterranean element is usually found in these areas mixed with *Quercus* species (i.e. *Q.infectoria*, *Q.cerris*, *Q.libani*), *Crateagus monogyna*, *Crateagus orientalis*, *Fraxinus ornus*, *Pyracantha coccinea*, *Juniperus oxycedrus*, *Eriolobus trilobata*, *Paliurus spina-christi* at 1000 to 1700m elevations, mostly on calcareous shallow and stony soils with mediocre or high alkaline reaction.[1], [3]

Southwestern and Southern Anatolia are natural distribution areas of *Acer monspessulanum* in Turkey. Excluding some very local places such as Uşak, Manisa and Balıkesir (Marmara island), it does not grow at the Western Anatolia.

The subsp. *monspessulanum* determined in our study area is one of the 5 sub-types (subsp. *microphyllum*, subsp. *ibericum*, subsp. *cinerascens*, subsp. *oksalianum*, subsp. *monspessulanum*) of *Acer monspessulanum* L. in Turkey. Generally they grow at south looking slopes on limy, shallow, stony soils in Turkey, however, they also appear in shadowy valley deeps among rocks as small trees or bushes, and their main distribution areas in our country is as follows: Balıkesir (Marmara island), Manisa (Kırkağaç), Uşak (Itecek hill), Isparta (Eğirdir, Kasnak forest, upper Gökdere), Burdur (Göhlhisar), Antalya (between Elmalı and Finike, Elmalı, and Çıgıkkara forest, Alanya, Gebiz and Mt.Bozburun, Beyşehir and Akseki), İçel (Mut) [1]; İzmir (Urla peninsula-Akdağ, Mt. Bozdağ-Ovacık plateau) and Aydın (İncirliova, Mt.Samsun, Dilek peninsula) [4] (Fig2). *Acer monspessulanum* subsp. *monspessulanum* is mostly found in forest of *Quercus* (*Q.cerris*, *Q.infectoria*, *Q.pubescens*), *Pinus* (*P.brutia*, *P.nigra*), *Juniperus*, *Fraxinus*, *Cupressus sempervirens* and *Cedrus libani* at an elevation of 600 to 1700 meters.

### III-FINDINGS

The exact location of *Acer monspessulanum* subsp. *monspessulanum* determined by us is on western slopes of the Eser valley at the south of Kazancı village on western part of the upper Gediz basin, towards the

<sup>1</sup> To Prof.Dr. Faik Yalınık, who identified the samples of *Acer* that we collected at the excursion, my sincerest thanks.

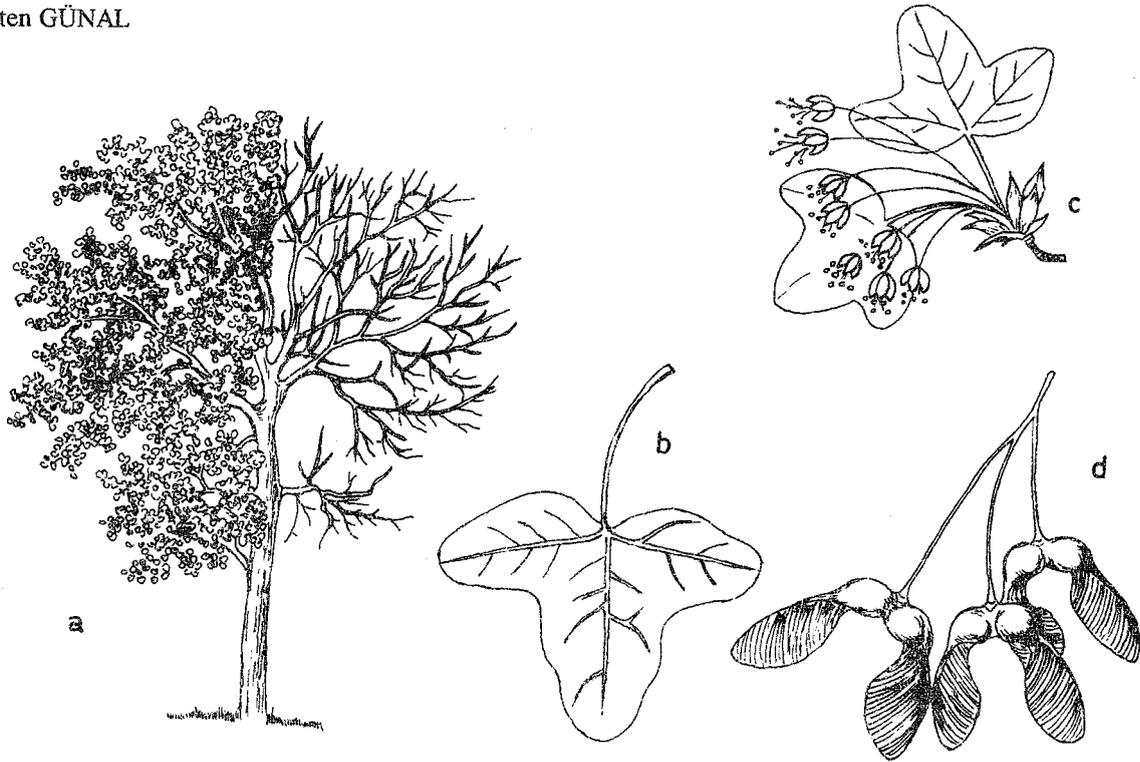


Fig.1. *Acer monspessulanum* a) habit b) flowering twing c) leaf d) fruits

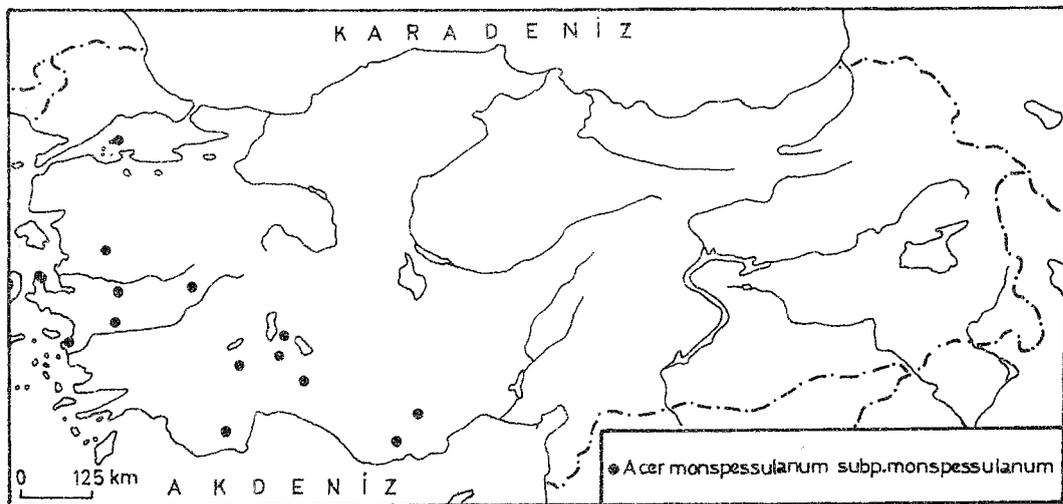


Fig.2 Distribution of *Acer monspessulanum* subsp. *monspessulanum* in Turkey

southern of Demirci(Fig 3). This area and its surrounding area covered by dry forest of which the dominant species is *Quercus cerris*. However while the oaktree forests grow better on slightly inclined slopes they appear as sparsely placed small trees or bushes on highly inclined slopes. *Crateagus monogyna*, *Crateagus orientalis*, *Cistus laurifolius*, *Juniperus oxycedrus*, *Prunus spinosa* form the lower level of *Quercus cerris* which is found mixed with such other *Quercus* types as *Q. ithaburensis* subsp. *macrolepis*, *Q. infectoria*, *Q. pubescens*. *Acer monspessulanum* subsp. *monspessulanum* found in this area first appear as single trees on the slopes of the Eser valley after passing the Kazancı village, then they cover all of the slopes as trees, 5 to 6 meters in height (Photo.1). Further they form communities at the both sides of the road that goes to the Öksüzlü village from Kazancı and find a flourishing area on slopes of the Kazancı mezarı hill (905m)(Photo2-3) and extended approximately for 1 to 1,5km towards the south, disappearing near the watershed of the Çınarcık brook which joins the Demirci stream. In this area, *Fraxinus angustifolia* subsp. *angustifolia*, *Q.cerris*, *Q.ithaburensis* subsp. *macrolepis*, *Eriolobus trilobata*, *Juniperus oxycedrus*, *Paliurus spina-christi* enter communities formed by *Acer monspessulanum* subsp. *monspessulanum* on shallow non-lim brown forest soils found on andezites at an elevation of 800 to 900m. While most of the *Acer monspessulanum* subsp. *monspessulanum* trees show a good growth, it is a striking feature that the ones on inclined, stony parts tend to dry up.

#### IV-CONCLUSION

Although *Acer monspessulanum* subsp. *monspessulanum* is found as single or in small groups in natural distribution areas in our country it forms, for the first time, communities in this area as Yaltrık also confirms. In our opinion conservation of this area where *Acer monspessulanum* subsp. *monspessulanum* appear in communities in a country. Which is poor in *Acer* species that show, a distribution area at Southern Anatolia, but cannot be found towards the north except in some small locations, would be of great use.

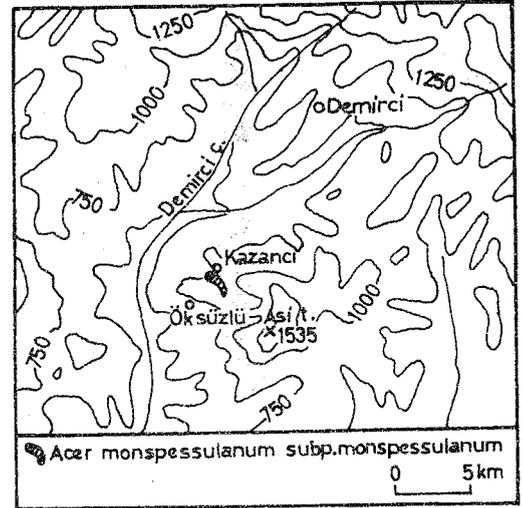


Fig.3

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Photo.1. *Acer monspessulanum* subsp. *monspessulanum* trees in the Eser valley. *Q. cerris* communities in the form of bushes in the background.

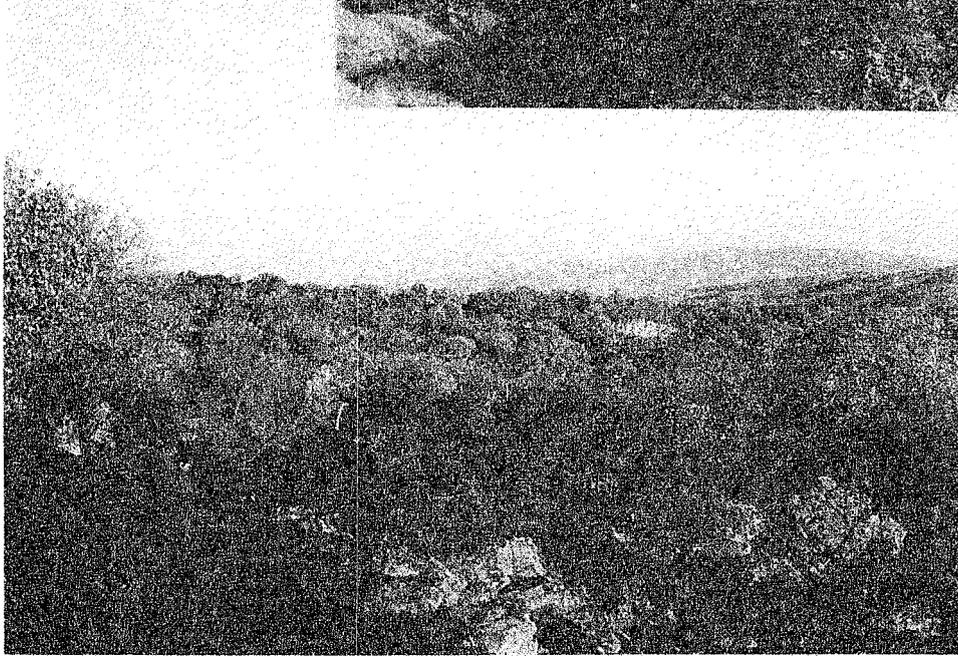
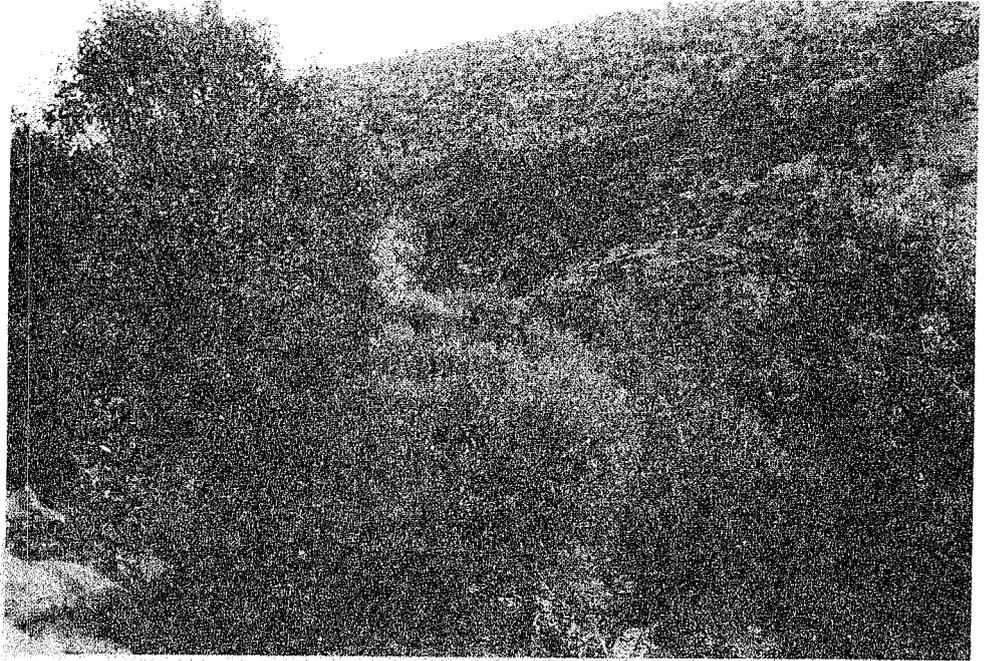


Photo.2. *Acer monspessulanum* subsp. *monspessulanum* communities at the Kazancı mezarı hill (905m) slopes. From place to place *Q. cerris*, *Q. ithaburensis* subsp. *macropelis*, *Eriolobus trilobata*, *Fraxinus angustifolia* subsp. *angustifolia* mixes with *Acer monspessulanum* subsp. *monspessulanum* community.

Photo.3. *Acer monspessulanum* subsp. *monspessulanum* communities at the both sides of the road that goes to the Öksüzlü village from Kazancı.

