



Cyprus vegetation – an overview



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Structure

Overview

Division of the island

Special life forms

Coast

Great plain

Mountain range

Other habitats



Overview

Cyprus has a high biodiversity with 2002 taxa (species, subspecies and hybrids) consisting of 1640 native taxa (species and subspecies), 244 introduced taxa occurring in the wild, 42 hybrids and 84 species with unclear status. The biodiversity is caused by great variation in geology and climate. Because of the isolation there are about 142 (113 species and 29 subspecies) endemic species to Cyprus, therefore it is a hotspot of species richness and endemism.

You can find different habitats with diverse flora consisting of extensive forests, widespread cultivated land as well as shrubby or herbaceous communities.

Division of the island

The island was divided by phytogeographical areas in 8 subdivisions by Meikle.

But it can also be divided into 3 areas: the coast, the mountain ranges, and the great plain.



Topographical map of Cyprus with the 8 divisions of Meikle [2].



Topographical map of cyprus with the mountain ranges (marked in brown) and the great plain (marked in green) [2].

Special life forms in Cyprus

Halophytes are plants that can grow in habitats that contain high concentrations of salt. These habitats can be found near the coast or at salt lakes or salt marshes.



Limonium sinuatum, a halophyte [3].

Chasmophytes are plants that live in the crevices of rocks that emerge through frost shattering in winter. These habitats are mostly found in the mountain ranges.



Crithmum maritimum, a chasmophyte [4].

The coast

The coast is mostly flat and rocky, but we can also find beautiful extensive sand beaches, many of which are crowded by tourist in the summer.

The coastal region is often fertile and therefore used as farm land.



View over the Golden Beach on the Karpaz Peninsula in North Cyprus [5].



Rocky shore on Kap Greko, in South Cyprus [6].

Typical plants of the sandy coast



Eryngium maritimum [7].



Medicago marina [8].



Cakile maritima [9].



Pancratium maritimum [10].

Mesaoria plain

The Mesaoria flat is fertile and mostly treeless due to cultivation. Until antiquity the flat was densely forested. Nowadays there are many cornfields and in the periphery terraces with olive, carob or citrus trees. Due to herbicide use and fertilisation there is barely weed flora left.



A cornfield near Perivolia [11].



Terraces with plantations in Cyprus [12].



Beşparmak and Troodos

Cyprus has two great mountain ranges which are very different.

The Beşparmak mountain range which rises up to 1024 m a.s.l. lies on the northern side of the island and consists of different limestone rocks and has therefore an alkaline soil. It is located directly at the northern coast and is just a narrow range in comparison to the Troodos mountain range in the South.

This mountain range is nearly twice as high as the Beşparmak mountain range and rises up to 1952 m a.s.l.. The ground is fairly different to the ground of the Beşparmak mountain range since it is composed of volcanic rock that is acidic.

In this mountain ranges we can find an interesting phenomenon called Vikariism. This is when two closely related species grow under distinct conditions. In this mountain ranges we can find closely related species like *Arabis purpurea* that grows under acidic conditions in the Troodos range and *Arabis cypria* that grows on the alkaline soils of the Beşparmak range.

Pine forests

In the mountain ranges you can find two different pine forests that not just covered the mountains but the whole island in ancient times. The *Pinus brutia* forest rises up to about 1000 m a.s.l. and consists mostly of *Pinus brutia* growing on the slopes and *Cupressus sempervirens* in the valleys. In the Troodos range you can also find *Cedrus brevifolia* in the forest.



Pinus brutia [13].



Cupressus sempervirens [14].



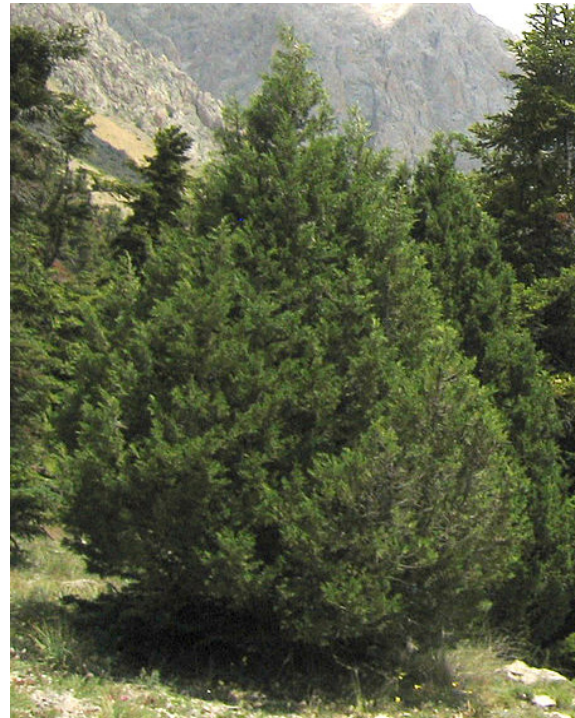
Cedrus brevifolia [15].

Pine forests

The other type of pine forest can only be found in the Troodos mountain range because it is found from heights of 1300 m a.s.l. to 1900 m a.s.l.. It consists mostly of *Pinus nigra* ssp. *pallasiana* growing together with *Juniperus foetidissima*.



Pinus nigra [16].



Juniperus foetidissima [17].

Summit area

The summit area of Troodos is without trees but with many herbaceous endemics as *Alyssum troodii*, *Astragalus echinus*, *Nepeta troodii*, *Satureja troodii*, *Teucrium cyprium* and many others.



Teucrium cyprium,
an endemic of Cyprus [21].

Maquis

In the lower parts of the mountains we can find Maquis which is a form of vegetation consisting mostly of shrubs and does not grow higher than 3-5 (-10) m. The Maquis in Cyprus can differ from place to place but we mostly find different shrubs and small-sized trees like *Arbutus andrachne*, *Styrax officinalis* and different species of the genus *Pistacia*.



Arbutus andrachne [18]. *Styrax officinalis* [19].

Pistacia terebinthus [20].

Phrygana

Another type of vegetation we can often find in Cyprus is the Phrygana. It does not rise higher than about half a meter and consists of small shrubs and herbaceous plants. The plant composition can also differ very much from place to place. Plants that are mostly found are *Sarcopoterium spinosum* or different species of the genus *Cistus*.



Phrygana with some remaining trees and open areas without vegetation [22].



Sarcopoterium spinosum [23].



Cistus creticus [24].

Degradation

Maquis and Phrygana often occur naturally but they can also occur due to grazing. Grazing can degrade a forest into a Maquis and with further grazing activity to a Phrygana and with highly overgrazing as far as bare ground without any vegetation. In overgrazed Phryganas there are often only plants left that are avoided by grazers like *Sarcopoterium spinosum* or *Asphodelus ramosus*. But if the ground is not washed away these areas can recover when the grazing activity stops but this process can take a long time.



Overgrazed meadow in Portugal, consisting mostly of *Asphodelus* [25].

Other forest types

You can not just find Pine forests in Cyprus but there are also other forest types, but they are not frequent, some of them are restricted only to small areas as the Oak forest. There is also an endemic oak in Cyprus, only in the Troodos mountains, *Quercus alnifolia*.

Another forest type is the riparian forest that you can find near rivers with trees that have a higher requirement of water as *Platanus orientalis*.



Riparian forest in Armenia [27].



*Quercus
alnifolia* [26].

Salt lakes

Salt lakes provide a special habitat for plants and animals, especially for birds and are worth protecting. In Cyprus they can be found in Larnaca and Limassol. Salt lakes are places where you can find many Halophytes.



Salt lake of Larnaca in South Cyprus [32].



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Illustrations

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