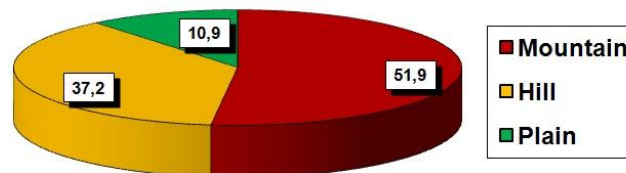


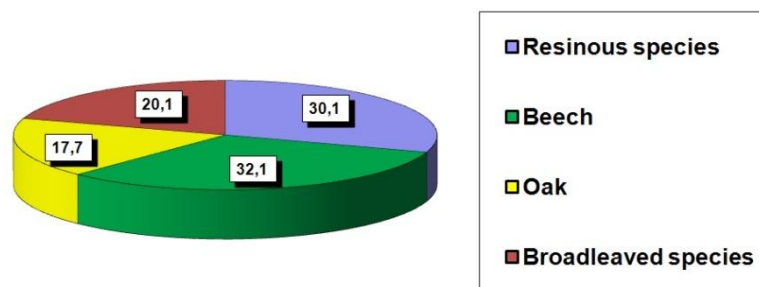
Forest characteristics and forest types - Romania

Romania is covered by wealthy and diverse vegetation, wherein the forests stand for about 27 % of the national territory. From the top of the mountains to the seashore one can meet shrub and rocky vegetation, impressive coniferous forests, mixed spruce, fir and beech old growth forests, flowered meadows and ancient forests in hills and plain regions, oak or mixed broadleaved forests on plains, fringing forests along flooded meadows, halophytic or costal plants alongside the large rivers or the seashore, wetland vegetation or boundless reed beds within swamps and the Danube Delta. This huge diversity comes from the country's geographical location, wherein four various climates interfere: continental, south European, sub-Mediterranean and central European, in Romania can be found therefore 5 different geographic bioregions (alpine, continental, pontic, panonian, stepic), highest number found in one single European country.

The distribution of the forests on types of relief is illustrated in the next diagram, 37.2 % from the forests are in the mountain areas (Carpathian Mountains), 51.9 % of forests are located in the hill areas and 10.9 % from the forests are situated in the plain areas.



In Romania's forests, the most sensitive ecosystem types are the steppe forest ones, where the forests are exposed to dry periods and to the climate changing effects. The distribution of tree species in forests, illustrated below is: 32.1% from the forests are constituted from beech, 30.1 % are constituted from resinous trees species, 17.7% are constituted from oak tree forests, 20.1% broadleaved tree species.



The distribution of the forests by regimes highlights the orientation of the Romanian forestry in applying the method of seed-based regeneration of older stands or planting new seedlings after clear cuttings in order to obtain diversified and uneven aged stands with high ecologic stability and valuable industrial timber grades.

In the last century the forests health is affected by the natural and anthropic factors. The main factors that are affecting the forests, generating the dying phenomena are long dry periods (climate change), industrial pollution (transboundary in some cases), abusive grazing, forest logging using improper technologies, etc. The most affected species by abnormal dying phenomena are: oak and fir.

Due to the climate change some changing in the forest vegetation levels are taking place, in some mountain ecosystems for example beech forests are advancing in altitude taking the place of former fir tree forests.

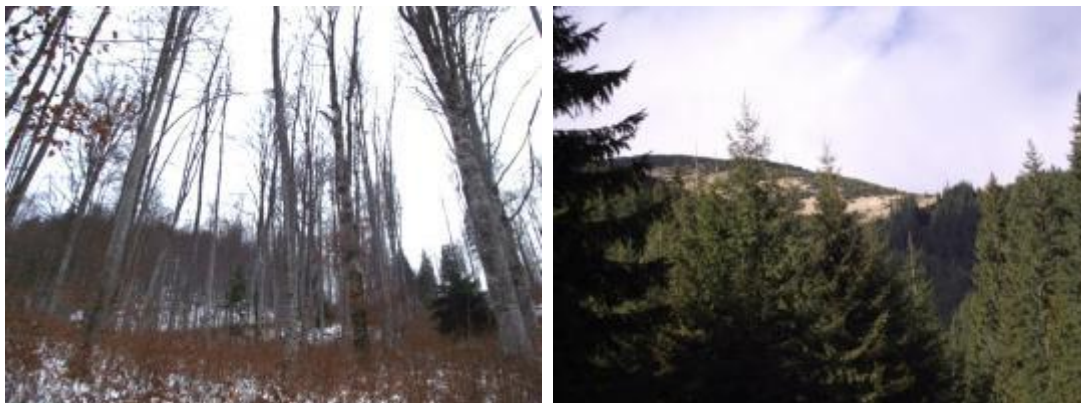
The distribution of the forests on different age categories is also an interesting factor, in Romania an important category being constituted from the forests with more than 100 years old. In this category are included also the pristine forests, a comprehensive study conducted by the Romanian Forest Research Institute did identify more than 200.000 hectares of pristine forests.



Romanian pristine forest

Typical and exceptional fauna and flora species in forests - Romania

Romanian forests show off a sizable diversity and wealth in terms of wooden and herbaceous species providing for a considerable stability of forest ecosystem and environment protection. Out of the 50 vegetal formations identified at national level, 34 are forest formations wherein the most important species with zonal area can be found: Swiss pine, Norway spruce, fir, beech, durmast, oak, Turkish oak and *Quercus frainetto* – as well as some species with intrazonal areas such as larch, *Pinus nigra*, ash elm, indigenous poplars and willows.



Beech and Norway spruce, the most common tree species in Romania

Within the natural forests of Romanian Carpathians some relict species survived the glacial ages the following one worth to be mentioned: *Syringa josikaea*, *Hepatica transsilvanica*, *Betula nana*, *Betula humilis*, *Salix stareana* and *Vaccinium oxycoccus*. Some endemic species have been identified as well: these are *Dianthus tenuifolius*, *Dianthus spiculifolius*, *Ranunculus carpaticus*, *Silene dubia*, etc, and the well-known *Dianthus callizonus* (Symbol of the Piatra Craiului Massif).



Dianthus callizonus

The forest fauna is representative for the main groups of animals identified in Romania: 36 species out of the 43 mammals exist in the forest area, 156 species of birds out the total number of 250 species, 13 species of the total number of 15 and 13 fishes out of the 21 species reported at the national level.

Valuable fauna species in Romanian forests: bear (*Ursus arctos*), about 50 % of the European population, wolf (*Canis lupus*) about 40 % of the European effective, red deer (*Cervus elaphus*), chamois (*Rupicapra rupicapra*), wild boar (*Sus scrofa*), roe deer (*Capreolus capreolus*), lynx (*Lynx lynx*), hare (*Lepus europaeus*), wild cat (*Felis sylvestris*) and pheasant (*Phasianus colchicus*).



Wolf and bear, ones of the most important fauna species in Romanian forests

Forms of nature protection such as national parks and Natura 2000 sites - Romania

A tremendous importance for the forest area biodiversity conservation has the natural forests (old-growth and semi-virgin) that host many species of flora and fauna that are characteristic for the temperate zone as well as an important collection of relict and rare species. In Romania, the national system of protected areas consists of 29 major protected areas (National Parks, Nature Parks and Biosphere Reserve Danube Delta) and more than 900 smaller natural protected areas.

There are more than 650.000 hectares forests in the national and nature parks and almost 2 million hectares forests in the Natura 2000 network.

The most important National and Nature Parks in Romania:

Maramures Mountains Nature Park

It is the largest nature park of Romania, which includes a zone of continuous habitats in the north of the country. Limited access due to the border area and steep relief maintained in Maramures Mountains representative samples of flora and fauna of the Carpathians, as a protected area created by nature.



Steam train (Mocanita), houses, wooden churches and gates come to complete a landscape still untouched in the middle of the Carpathians.

Piatra Craiului National Park

Piatra Craiului is the longest limestone ridge of Romania, hosting the densest network of valleys and residual shapes such as: walls, belts, notches and hollows. *Dianthus calizonus* is referred as an icon for the massif, as well as a site-specific endemic species.



Some of the big carnivores are representative for this park: brown bear, wolf and lynx. Chamois is also representative for upper belt of the mountain.

Vanatori Neamt Nature Park

Lying on the north-eastern side of the Romanian Carpathians, in the historic province of Moldavia, the Vanatori Neamt Nature Park is the only one in Romania which developed an European bison reintroduction program, that's why, the Park is well known as the "Bison Land". It is recognized as a Sacred Natural Site, because of the presence of 16 famous Romanian Orthodox monasteries and hermitages, the living monastic communities (about 1,100 monks and nuns) represent the second largest Christian monastic concentration in Europe.



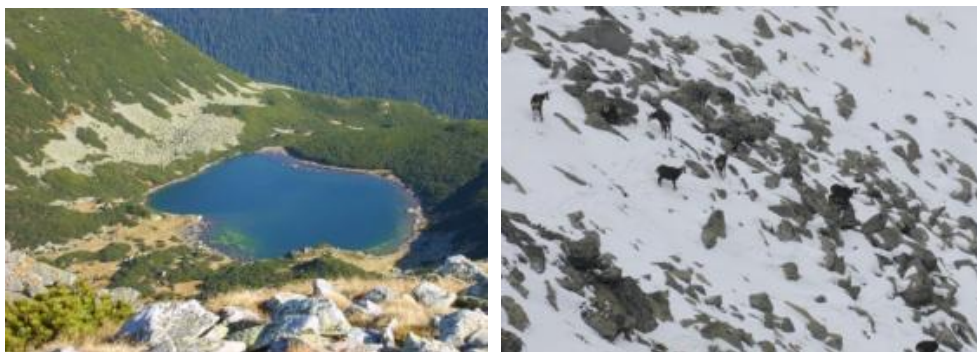
Agapia Veche Convent



European Bison

Retezat National Park

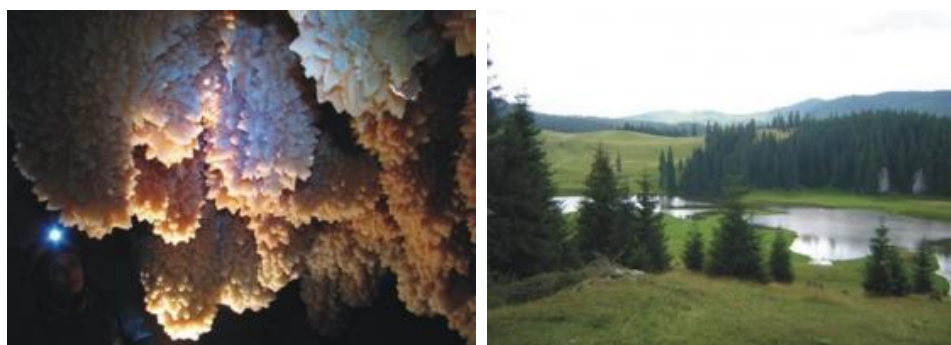
This park is the oldest Romanian National Park, established in 1935. The Retezat famous treasures are to be found in the alpine zone, where may be found more than 80 lakes. As for unique landscapes, the glacial cirques and valleys are breathtaking the visitors; Bucura lake, the widest glacial lake in Romania, Zanoaga lake, the deepest glacial lake; impressive old-growth forests of beech and Norway spruce. It is considered that Retezat Mountain hosts between 31 % and 47 % of the Romanian flora.



“Slavei” glacial Lake Chamois on Retezat’s screes

Apuseni Nature Park

The specific of the park is the karstic landscape which shows off a wide variety of shapes: cliffs, steep valleys, lapis, caves, underground water bodies.



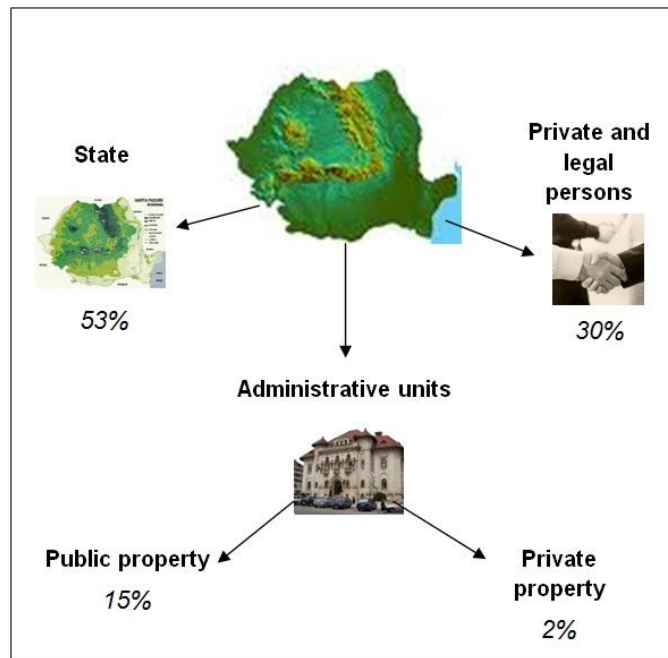
Piatra Altarului Cave

*Landscape in Apuseni Nature Park
(Apuseni Nature Park Administration)*

Organization of Forestry - Romania

Nowadays, the area covered by forests is about 6.5 million hectares. The historical surface of the forests was of about 18 000 000 ha in Romania. At the end of the 19 Century the forest coverage was reduced to 40 % and in 1948 was stabilized at 27 %. According to the forest legislation the surface of the forest coverage cannot decrease further.

At the end of 2008, the state forest was about 53 % and the other 47 % belongs to private and legal person and to administrative units as is presented below:



The State Forest is administered by the National Forest Administration Romsilva which is supervised by the Minister of Environment and Forests. Romsilva is divided in 41 forest district that are coordinated directly by the General Manager. The forest administrative units are the elementary forest divisions and they are subordinated to the forest districts. Due to the forest law nr.46/2008 the forests are administered based on forest management plans elaborated on the production units that are valid for 10 years excepting those made for poplar, willow and other species quickly rising, the period of validity is 5 or 10 years.