



their tusks are precious hunting trophies. Deers are herbivorous animals, they feed on buds and sprouts of shrubs and trees. Antlers of stags redevelop in every year during 120-150 days being valuable hunting trophies just like the so called „pearl teeth” (canine teeth) of females.

## 9. Old beech forest

Beech (*Fagus sylvatica*) prefers wet habitats, it is characteristic to mountains in Hungary above 500-600 m elevation. Seedlings are developing very slowly until they are 5-6 years old, they begin to grow faster between the age of 10-20 years. Beech forests have a cold and wet microclimate providing habitat for mountaneous species.



Wood Spurge

## 10. Natural forests

A natural forest may give an impression of untidiness, however, it shows indeed how a forest look like without human intervention. A natural forest is an example to be followed by forest management since leaving old trees with hollows in the forest provides breeding and nesting places for birds and small mammals. Reptiles and frogs find a proper place for spending the winter under fallen trees. Decaying trees are habitats as well as foods for several insect species.



Dor Beetle

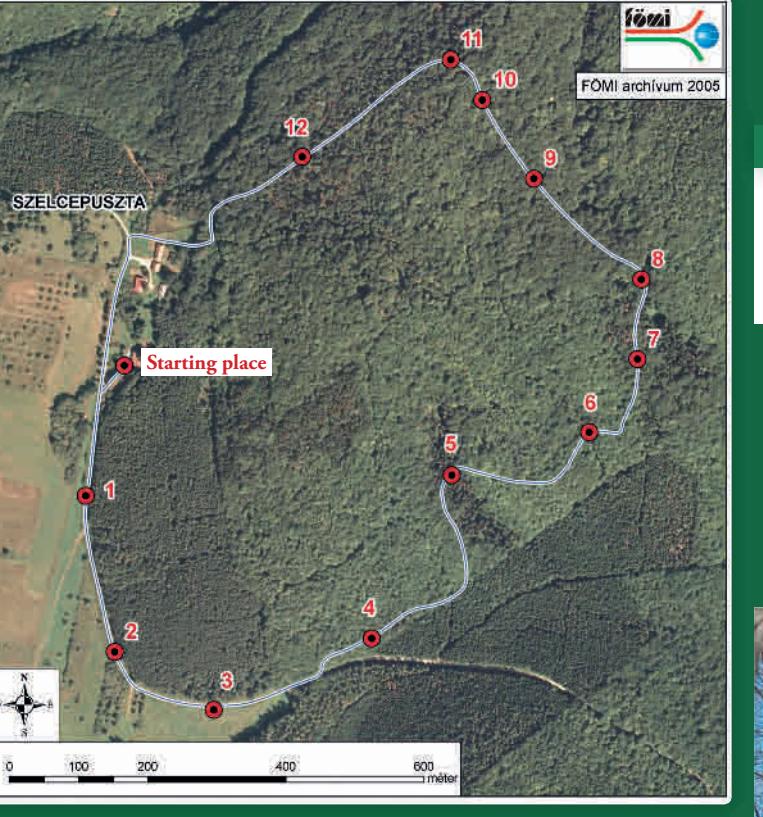


## 11. Collecting fruits and herbs

Fruits that can be found in a forest are very delicious and contain a lot of vitamins. Several kind of forest fruits can be collected along the trail such as woodland strawberry (*Fragaria vesca*), dewberry, wild pear, fruits of dogwood, blackthorn and dog rose. Mushrooms can also be collected but they should be examined by a specialist before cooking. Several herbs with healing effects can also be collected like deadly nightshade (*Atropa belladonna*), hawthorn species, blackthorn, stinging nettle (*Urtica dioica*), violet species (*Viola sp.*), dog rose and plantain species (*Plantago sp.*). However, nature must not be exploited by collecting too many fruits and herbs, furthermore, a special licence is required to be able to collect herbs in the area of the Aggtelek National Park.



Pine Bolete



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**Building partnership**

European Union  
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Mark: badger sign  
Length: about 4 km  
Duration: about 2 hours

The Badger Education Trail was created by the North Forestry Co. (Miskolc). It can be found near Szelcepuszta. The main purpose of the trail is to introduce the typical forest types of the karst, their importance as ecological habitats and their management to visitors. Groups may ask for a guidance of a specialist at the North Forestry Co. Jósva-Torna Forestry Directorate (3761 Szin, Szabad-ság St. 84., Phone: +36 48/564-510).

## 1. Common pine (*Pinus sylvestris*) forest

Pine species are not native to the Northern Mountain Range of Hungary. All the pine forests are artificially planted in this region. Since the foliage of pine forests are very thick, there is only a very little light within the forest. Ferns, mosses, lichens and mushrooms can be found as undergrowth. The top of the soil is covered with a thick layer of slowly decaying needle-leaves. The dark, closed pine forests with a typical smell of resin have a special atmosphere.



Pine forest

## 2. Shrubs



Common Hawthorn

Nutrient rich soil and plenty of light are needed so that shrubs can develop within a forest. There are not many shrub species in a forest where the foliage is thick (like in beech fo-



rests) but for example in oak forests with more light the number and density of shrub species are much higher. Shrubs have a positive effect on the microclimate of the forest, eg. they protect the soil from erosion. They also provide nesting and living habitats for animals as well as the buds and fruits are important nutrients for them. Typical shrub species of the area are common hawthorn (*Crataegus monogyna*), blackthorn (*Prunus spinosa*), dog rose (*Rosa canina*).

## 3. Artificial reforestation

Forestry is responsible for a continuous management of forests. When trees of a forest are mature enough (it is 100-150 years in the case of deciduous trees with a slow growth), they are ready to be cut off and replaced by young seedlings. Reforestation can either be natural or artificial. Natural reforestation means that seedlings developing from the seeds of the old trees are protected to be able to survive and grow. During artificial reforestation seeds are artificially planted, or seedlings from a tree farm are transported and planted in the given area. Reforested areas should be protected against the damage caused by deers, roe-deers and wild boars since they feed on the buds and roots of young trees.



Natural reforestation

This forest community is typical for mountains and hills of Hungary that are situated at 400-600 m elevation. The most characteristic tree species are durmast oak (*Quercus petrea*), hornbeam



Wood Violet



(*Carpinus betulus*), small-leaved lime (*Tilia cordata*), field maple (*Acer campestre*), bird cherry (*Cerasus avium*), beam tree (*Sorbus torminalis*). Due to the thick foliage there is only a little light within the forest that is why only few shrubs can be found there. Early in the spring, when the leaves are small and young, there are much more light within the forest so plenty of bulbous plants are in bloom. Later in the summer those herbs can be observed which prefer shadowed habitats.

There are holes and passages of badgers close to the forth stop. Most of the time a system of holes and passages is inhabited by several families. The passages can be several metres deep underground, they have been created and recreated for decades by badgers who use their claws for digging. The average hight of the passages is 15-30 cm, their cross-section is oval vertically. A badger has an elongated head with black and white stripes. Its legs and tail are rather short, but there are long claws on the forelegs. It has a grey fur but the legs and the belly are black. It is a nocturnal predator mostly feeding on earthworms, snails, insects, young birds, eggs and sometimes it also eats mushrooms, acorns and fruits. It puts on quite a lot of weight in the autumn and rests for weeks in its dwelling hole in the winter but it does not hibernate. It is an endangered animal species.



Entrance of underground passages of badgers

## 5. Dry valley

Close to the stop there is a karstic dry valley. It was formed by erosion of former watercourses but currently it is completely dry. Several dolinas can be observed at the bottom and on the slopes of the



Karstic dry valley



valley. Tree and shrub species in the valley are hornbeam, durmast oak, beam tree, wild pear (*Pyrus pyraster*), common hawthorn, privet (*Ligustrum vulgare*), dogwood (*Cornus mas*).

## 6. Soil protection

A forest has a very important function: it protects steep slopes from soil erosion. If the fertile upper soil layer is degraded only the unfertile basic rock remains where plants can hardly live on. Plants have a key role in soil protection since their roots stabilize the soil this way decreasing the erosion caused by rainwater since roots absorbs most of it while the remaining rainwater flows down the slopes much slower. The following plants can be observed close to the stop: white oak (*Quercus pubescens*), douglas fir (*Pseudotsuga menziesii*), dewberry (*Rubus caesius*).

## 7. Game management, hunting

Due to the expanding human population, habitats of wild animals have become smaller while most of the big predators disappeared. That is why keeping a balance between a forest and its game population recently is a task of game management. Thus, hunting is planned in advance, it controls the number and composition of games in a given area. Game management is also responsible for feeding animals in the winter.

## 8. Games of the forests

The most common games of the forests of the karst are wild boars (*Sus scrofa*) and deers (*Cervus elaphus*). Wild boars are omnivorous animals, they seach for food on the ground. They can be hunted all year round,



Wild Boar