



TECHNICKÁ UNIVERZITA VO ZVOLENE  
ARBORÉTUM BOROVÁ HORA

# Information panel about technical parameters of the blue educational trail in Borova Hora Arboretum

The information is intended for physically disabled persons and wheelchair people and other respondents



**Basic information about the Borova Hora Arboretum.** The Arboretum area belongs into the geomorphological unit of Zvolen basin (range altitude 291 - 377 m a.s.l.). It's located in a climate with a slightly humid and cold winter with an average annual temperature of 8.8 °C and an average annual rainfall of 640 mm (data from 1978 to 2004). The arboretum was founded in 1965 with area 28.38 ha. It's current area after settlement of property - legal ratios is 47.89 ha. The collection of the Arboretum can be divided into: the collection of tree species, the collection of roses, the collection of cacti. The largest and most significant is the collection of tree species with a focus on the original dendroflora of Slovakia in the range of 2 500 taxonomic units (500 species).

**Arboreta, botanical gardens** and other natural objects are directly suited for linking of educational and physical activities. The blue route is designed for half-day activity "with" or "without" assistance on a mechanical or electric wheelchair. Sporting - kinetic activities are recommended for wheelchairs with a larger wheelbase (tricycle). The data are calculated on basis of technical parameters of the Orthopedics - Touring - 928 electric wheelchair. This proposal took into account the methodical procedure ensuring the general technical conditions for the use of constructions designed for physical activities (sports), which was confronted with the method of barrier free accessibility requirements. Overcoming of the terrain heights and depressions throughout the all route depends on the type of disability, the physical fitness of the individual, the availability of a suitable compensation device, wheelchairs technical parameters and other factors which are individual for moving of persons. The yellow route is not suitable for moving on a wheelchair.

## The educational trail data



Total length of the route: 2.605 km  
Surface of the trail: reinforced asphalt



Color designation of the trail: blue  
Height range: 331.2 - 367 a.s.l.



Proposed the construct carriage speed: 1,67 km/ h  
Estimated time of route without stoppings: 1,56 h



Maximum longitudinal slope: (-) 13.5 %  
Maximum cross slope: (+), (-) 2%



Max. height/depth of depressions: (+), (-) 0,08 m  
Length of section with maximum descent: 320 m

## Recommended slope of trail for moving in a wheelchair



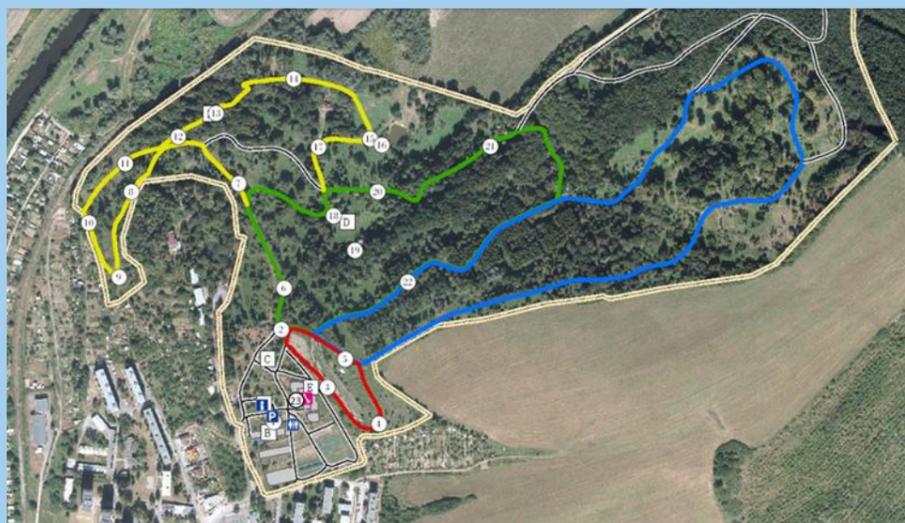
\* route slope > 4.8% (1:21) with assistance

\* route slope < 4.8% (1:21) without assistance

In overcoming obstacles is crucial the individual fitness of the person on the wheelchair and the level of compensating tool (eg its technical parameters).

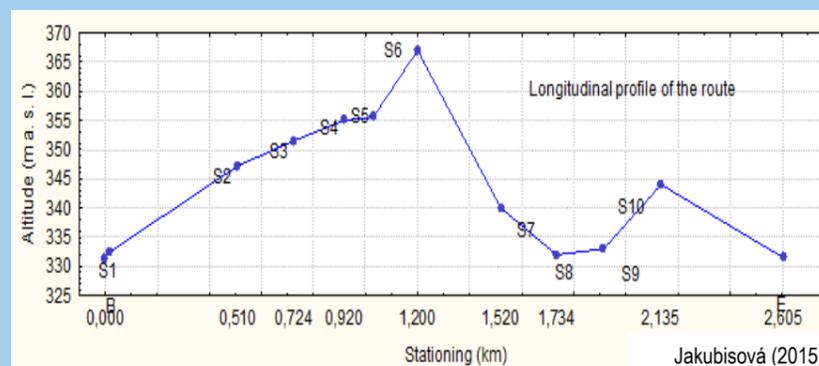
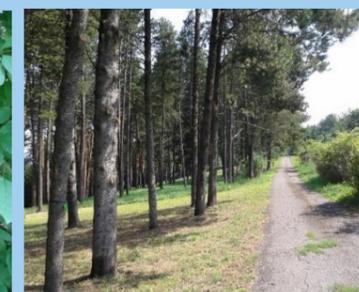
## Informative map of educational trails

- red route (Rosary)
- green route (Lower way)
- blue route (Upper way)
- yellow route (Natural ecosystems)



## Legend – info panels

- 1 Borová hora Arboretum
- 2 Orientation map
- 3 Roses - Popular ornamental tree species
- 4 Rudolf Geschwind
- 5 Climatic conditions of the arboretum
- 6 Deciduous tree species
- 7 Original ecosystems
- 8 Pioneer tree species
- 9 Apiculture
- 10 Forest steppe communities
- 11 The phenomenon of Borova hora
- 12 Fungi of the original communities
- 13 Natural forest ecosystems
- 14 Soft floodplain forest
- 15 Tree species of floodplain forests
- 16 Processing of dendro-mass
- 17 Forest phenology
- 18 Original forest communities
- 19 Rhododendrons and azaleas
- 20 Geological subsoil and soil
- 21 Avifauna
- 22 Coniferous tree species
- 23 Technical parameters of the Blue Route for physically disabled and wheelchair people



Overcoming obstacles also affects of the people with visual, hearing, mentally disabilities, people with post-traumatic conditions, parents with kids in a stroller, pregnant women, seniors, etc. The Convention on the Rights of Persons with Disabilities of United Nations Organization also addresses the requirements for the creation of barrier free environment, which it states, that so created environment is the friendly for all.