

**Fourth Report**

**Made by János György Nagy PhD, Hungary, 2100 Gödöllő, Egyetem tér 4/a földszint 1**

The aim of this survey to follow the vegetation change after the nature protection management during the 2018 year.

1. Domony-völgy: The cleared, previously *Crataegus monogyna* dominated scrub is sprouting slowly. The eastern-north-eastern edge of the *Robinia pseudoacacia* plantation has cut. A huge amount of *Celtis occidentalis* seedlings rises there as more light reaches the herb layer. Mowing and grazing would be necessary.
2. Gyermely-Máriaalom. There was not nature protection management on the area till October.
3. Budaörsi kopárok. The number of the survived black pine sprouts declined. The invasive *Ailanthus altissima* has extinct. The amount of *Conyza canadensis* and *Stenactis anua* decreased, but the amount of *Solidago canadensis* has increased. The increasing of dominance of native and archeophytic woody species has continued so the bush clearing and mowing is necessary as soon as possible again. The seed filled hay should be spread to the bare surfaces.
4. Tétényi fennsík. There were no any invasive species in the plots. The growing offshoots of native and archeophytic snags were shorter than in 2017, as there were mowing during the summer. To continue the management is indispensable.
5. Debegió-hegy. After the successful management the number of *Celtis occidentalis* seedlings and *Solidago gigantea* shoots have increased significantly and just couple of *Robinia pseudoaccacia* trunk and root sprout have begun to rise up. The number of *Solidago gigantea* shoots have decreased a bit. The mowing on the treated places and the sow of the nude surfaces with locally collected seeds is necessary.
6. Fóti Somlyó. The number of *Celtis occidentalis* seedlings have increased. The height of the sprouts of native and archeophytic snags of shrubs was lower than in 2017 as the repeated mowing. The bare soil surfaces favor to the *Ambrosia artemisifolia*. Repeated mowing is necessary.
7. Tápiósági Földvár. The declivous slopes have been still covered by large, dense *Urtica dioica* and *Sambucus ebulus* dominated vegetation. The *Robinia pseudoaccacia* snag- and root sprouts has begun to rise up, and the *Celtis occidentalis* seedlings have appeared. The dead white poplar trees have been cut. Repeated mowing is necessary.
8. Szentmártonkáta. The quality of *Festucetum vaginatae* is excellent the *Asclepias syriaca* is very rare. The *Celtis occidentalis* seedlings has begun their invasion on the previous place of the black locust, where the number of seedlings and sprouts of *Robinia pseudoaccacia* are increasing. Mowing is necessary here.
9. Küdői-hegy: The woody species have been cut are still evolving from the remains of their trunks. The collected branches have been taken away and made bare surfaces favor to the invasive herbs. The *Celtis occidentalis* seedlings have begun their invasion. Repeated mowing is necessary

In summary, Repeated mowing (or grazing) is necessary on every places, sawing the locally collected seeds to the bare faces can stop the invasion of the alien herbs. Without these treatments the not needed plants will grow up and invade the cleared places quickly.

2018. november 14.

**Dr. Nagy János György**