

Annex for the Mid-term report LIFE11/NAT/HU/000926/



Action D3 – Status Report

**Monitoring and evaluation of the project
sites' treatments in Hevesi-sík SPA
(HUBN10004)**

2015-2016

The work was supported by the European Union's LIFE - Nature Fund



Summary of Action D3

Responsible person and Beneficiary: Peter Fehérvári (HNHM)

Other participants (by beneficiaries): László Tóth (BNPD), Peter Borbáth (BNPD)

1. Goal

Evaluating the effectiveness of action C4 (Implement and demonstrate grazing at the Heves project site, HUBN10004).

2. Indicator (achieved/not achieved)

Baseline survey of potential prey taxa carried out prior to treatments in 2013. Summaries available of results from both local and landscape level analyses.

3. Brief description of the activities

2015

In 2015, we carried out the first complex (local and landscape level) monitoring of the effects of various grazing and mowing regimes at the HUBN10004 project site (see table below for sample quantities collected) in accordance with the monitoring plan developed under action A3.

Field work was initiated in May, and was carried out until October, soil traps were emptied on average every two weeks. A major difficulty in 2015 just like in 2013, was the high soil water level, that hindered the usage of soil traps until June.

Soil-trap samples collected	605
Valid soil-trap samples	505
Sweep-net samples	189
Orthoptera abundance estimates	1746
Vegetation measurements	1995

We also collected a total of 47 foraging events of Red-footed falcons, however considering the time-scale of the study period this sample size is relatively low. This is mainly because the area has insufficient number of breeding pairs in the vicinity to assess such data. Moreover, the majority of these foraging events (39) were in treated plots, which shows that falcons readily utilized the treated habitats, however renders efficiency comparisons

virtually meaningless. Potentially this low sample size will also provide biased results in between- treatment analyses.

Therefore, to further supplement the assessment of habitat management protocol effectiveness, we carried out a landscape scale survey (10x10km around the study site) of habitat composition. This dataset will allow us to evaluate how the implemented practices differ from that in the region and show how prey accessibility, a key component in Red-footed falcon foraging efficiency, is different in non-managed areas.

2016

In 2016, we are carrying out the second complex monitoring of the effects of various grazing and mowing regimes at the HUBN10004 project site (see table below for sample quantities collected until reporting date in accordance with the monitoring plan developed under action A3).

Soil-trap samples collected	465
Valid soil-trap samples	375
Sweep-net samples	207
Orthoptera abundance estimates	1736
Vegetation measurements	1821

Field work was initiated in May, and will potentially end in October. A major difficulty in 2016, just like in 2013, was the high soil water level, that hindered the usage of some of the soil-traps until June. Furthermore, in 2016, the alkaline soil produced unusually large cracks and crevasse throughout the area. In case of a substantial proportion of our trapping stations, these crevasses surrounded the soil traps, hence altering the probability of trapping as the season progressed. It is difficult to correctly quantify the potential bias this causes, therefore we chose to handle this problem in field by excluding samples from soil traps where this phenomena occurred excessively. However, this decrease in valid samples is not expected to cause bias in analyses as this problem affected the traps in a random spatial pattern.

We also collected a total of 51 foraging events, however considering the time-scale of the study period this sample size is relatively low (see details above under 2015). Therefore, to further supplement the assessment of habitat management protocol effectiveness, we carried out a landscape scale survey (10x10km around the study site) of habitat composition. This dataset will allow us to evaluate how the implemented practices differ from that in the region and show how prey accessibility, a key component in red-footed falcon foraging efficiency, is different in non-managed areas.

4. Results (expected/achieved)

2015

All data has been digitalized, and is securely stored for further analyses. Samples collected have been sorted, vertebrate specimen collected have been identified and securely stored. The identification of invertebrate specimen is currently under way.

2016

Samples are securely stored, sample sorting and identification is in progress. Final rounds of sample collection are still to be implemented at the time of reporting.

5. Continuation (further actions)

The Final technical report of monitoring results will be delivered by 31.03.2017.