



**LIFE06 NAT/H/000104**

**PROGRESS REPORT No. 2.**

**Covering the project activities from 01. 09. 2007. to 31. 08. 2008.**

**Reporting date 31/08/2008**

**„Conservation of the Pannon endemic *Dianthus diutinus*”**

**Data Project**

<b>Project location:</b>	Hungary
<b>Project start date:</b>	01/09/ 2006
<b>Project end date:</b>	31/08/2011
<b>Total project duration (month):</b>	60
<b>Total budget:</b>	1 630 785
<b>EC Contribution:</b>	1 223 088
<b>(%) of total costs</b>	75
<b>(%) of eligible costs</b>	75

**Data Beneficiary**

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## **Lists of (i) key-words and (ii) abbreviations**

### Key-words:

*Dianthus diutinus*, Ex situ conservation, Forest reconstruction, Habitat restoration, Hungary, Invasive species, Natura 2000, Pannon endemism

### Abbreviations:

BEN – Beneficiary (KNPD)

DINPD - Duna-Ipoly National Park Directorate

KEFAG Zrt - Kiskunság Forestry Incorporated Company

KNPD - Kiskunság National Park Directorate

KVÖ - Local Government of Kiskunmajsa

MOL Nyrt. – Hungarian Oil Company

NEFAG Zrt - Nagyunság Forestry Incorporated Company

NBmR – National Biodiversity Monitoring System

SFS – State Forestry Service

SZTE - University of Szeged

TT – Nature Reserve Area (NRA)

## **Executive Summary**

- Project objectives

The main project objective is to stabilize the 85% of the presently known stands of the *Dianthus diutinus* and prevent/counteract the continuous decrease of the population by habitat diminuation and isolation of the subpopulations.

Since its habitats have been fragmented in the past 50 years mainly because of forestry activity, the goal of the project is to create such a habitat network with the help of the enlargement and unification of the present habitats, which won't be influenced by forestry activity at all or only at a minimal level on the three most important habitats of *Dianthus diutinus*.

Securing a potential unbroken habitat network, connecting and strengthen the fragmented subpopulations and informing the public about the importance of *Dianthus diutinus* and it's habitats, the chances of survival of this species in the long run would increase.

- List of key deliverables and outputs

## **Status of the fulfilment of deliverable products and milestones by 31/08/2007**

(1PR = 1st Progress Report)

(2PR= 2nd Progress report)

1.	2.	3.	4.	5.	6.
<b>Deliverable or Milestone (description)</b>	<b>Reference action</b>	<b>Deadline</b>	<b>Status</b>	<b>Evidence of reaching deliverable / milestone</b>	<b>Sent to Commission (Report (Annex))</b>
Nomination of project manager	F1	30. 09. 2006.	Completed	Contract	
Partnership agreement signed	F1	31. 10. 2006.	Completed	Signed agreements	1PR (Ann. 21)
Project staff in place at all sites (except guide)	F1	01. 11. 2006.	Completed	Contracts, Time sheets	
Project auditor contracted	F3	31. 12. 2006.	Completed	Contract	
Cars, computers and monitoring equipments purchased and delivered	F1, D3, F4, F5	31. 12. 2006.	Completed	Equipments delivered	
Logo created	E5	31. 12. 2006.	Completed	Project design handbook (including project logo)	1PR (Ann. 17)
Nursery set up	C4	31. 12. 2006.	Completed	Photo document.	1PR (Ann. 8) 2PR (Ann. 26)
Species and habitat monitoring protocol elaborated	F4, F5	31. 01. 2007.	Completed	Monitoring protocol handbook	1PR (Ann. 22)
Leaflets published	E2	31. 05. 2007.	Partly completed	Leaflets	1PR (Ann. 14; 15); 2PR (Ann. 33; 35)
Gates installed at Bócsa site	C2	30. 06. 2007.	Completed	Building permit, map, photo document	2PR (Ann. 23-25)
Disintegrator purchased and delivered	C1	31. 08. 2007.	Completed	Photo document	1PR (Ann. 7); 2PR (Ann. 16, 17)
Project poster	E5	31. 08. 2007.	On-going	Designer appointed	
Management Plans for the 3 pSCI site submitted	A1	30. 09. 2007.	On-going	Confirmation of submitted management plans	1 PR (Ann. 1; 2; 3); 2PR (Ann. 1)
Forest management plans for the 3 project site modified	A2	30. 09. 2007.	On-going	Official ask for modification (Bócsa project area), Minutes of the consultation (Bodoglár and Csévharasz project area)	1PR (Ann. 5) 2 PR (Ann. 2-3)
Website developed	E4	30. 09. 2007.	Completed	<a href="http://www.tartosszegfu.hu">www.tartosszegfu.hu</a> ; <a href="http://www.longlastingpink.eu">www.longlastingpink.eu</a>	
Forest reconstruction completed in 50 % on the three project site	C1	28. 02. 2008.	On-going		

## **Technical progress on project actions by 31/08/2008**

<b>Action</b>	<b>Deadline</b>	<b>Status</b>	<b>Description</b>
A1- pSCI management plan	30/09/2008	ongoing	Habitat mapping of Bócsa, Bodoglár and Csévharaszt project sites was done in 2007. The Natura 2000 management plans are ready for all three project sites and have been submitted to the Ministry of Environment and Water.
A2 – Forest management plan	30/09/2008	ongoing	Bodoglár project site: The modified forest management plan was received from Kefag Zrt for forestry works carried out in the first quarter of 2008 (Annex 2). An official request for forest management plan modification for forestry activities to be implemented at Bodoglár project site in the fourth quarter of 2008 has been submitted to Kefag Zrt.. Approved modifications of the plan have not been received in recent reporting period. Bócsa project site: Permission for ongoing forestry activities at Bócsa is included in the yearly forest management plan of Kiskunság National Park, since the property manager of the area is KNPD (Annex 3). An official request for forest management plan modification for forestry activities to be carried out at Bócsa project site in 2009 has been submitted to State Forestry Service (SFS). Csévharaszt project site: The forest management plan of this area is to be prepared this year. There was an official anticipatory negotiation (pre-arrangements) in April, 2008. The final management plan is to be completed until the end of the year 2008. According to these negotiations, there is no difficulty replanting our treatment strategy to the forest management plan and to get the soil protecting designation of these forest subcompartments.
A3 – Plan of the forest nature trail	30/09/2008	on-going	The potential track of the nature trail had been identified. Permission for the implementation of the nature trail was officially requested from property manager of the area, KEFAG Zrt.
C1 – Forest restructuring	30/09/2008	ongoing	Bodoglár project site: Thinning of black pine plantations carried out on a 27 hectare area in the first quarter of 2008. Maps and management plans are ready for the thinning of the remaining 17 hectares black pine plantation (see A2 in details). Bócsa project site: Chemical treatment and shrub eradication has been started on 10,6 hectare area in August 2008. Cutting of non-indigenous Robinia pseudo-acacia is contracted and started on a 5,6 hectare area. A disintegrator for project purposes was purchased and started operation at this site. Csévharaszt project site: Contracts have been signed and forestry work will start on this project area on the 1 <sup>st</sup> September according to the technology determined by DINPD experts.
C2 – Installation of gates	30/09/2008	completed	All six gates have been installed in spring 2008 for the protection of Bócsa project site.
C3 – Installation of the study trail	30/09/2008	not started	-
C4 – Nursery for ex-situ propagatin	30/09/2008	completed	The nursery is surrounded by fence and the surface for the growing pots is covered by geotextile.
D1 – Eradication of	30/09/2008	On-going	Public tender for Kiskunmajsa-Bodoglár and Bócsa project areas; contracting for the external assistance.

non-indigenous Asclepias syriaca			Elaboration of the detailed working protocol and daily working routine of the contractor based on the Asclepias syriaca monitoring results (Action F4,F5), but the daily routine was largely dependent on the actual weather conditions. 2nd year handling completed in Kiskunmajsa-Bodoglár and Bócsa project areas. Csévharaszt project site: On areas in property management of NEFAG (outside NRA) milkweed stands were precisely recorded and treated twice with chemicals.
D2 – Follow-up treatment of arboreal invasives	30/09/2008	On-going	At areas where D.2 action occurs most efficient treatment methods were selected, and chemicals to be used for the treatments were identified for different arboreal invasive species (Robinia pseudo-acacia, Ailanthus altissima, Prunus serotina). Csévharaszt project site: Mechanical and chemical treatment of Robinia stands with sprouts have started outside of NRA according to schedule. Post-treatment inside the NRA will take place next year.
D3 – Ex-situ propagation and re-establishment	30/09/2008	ongoing	Seed collection took place in the first and second part of the vegetation period. The raising and investigation of the plants in the nursery is continuous. Samples for soil seed bank investigations have been collected and are being investigated.
E1 – Foresters informed and included	30/09/2008	ongoing	The KEFAG Zrt. property manager of Bodoglár site organized a national meeting for foresters on 22 <sup>nd</sup> July 2007 with the participation of project team (Annex 55). ( <a href="http://www.kefag.hu/vandorgyules/index.html">http://www.kefag.hu/vandorgyules/index.html</a> See:Program 7th) Forest parts involved in the forest restructuring have been visited and applied management method discussed. Regular meetings have been held with local foresters in order to implement forest activities properly from conservation point of view. Potential designers of the stickers have been selected.
E2 - Locals informed and included	30/09/2008	ongoing	3000 pieces of leaflets have been printed out on the Kiskunság project sites in Hungarian, and 1000 pieces issued both in English and German languages. 12000 pieces of leaflets for Csévharaszt as well as 1000 pieces of folders with the plant picture and all relevant logos. 10000 pieces of SPA tickets were issued with the plant picture. The design of the fridge magnet have already been started.
E3 – Installing informational board	30/09/2008	ongoing	3 information boards made and installed at Csévharaszt project site 3 information boards designed for Bócsa project site 2 two information boards are being designed for Kiskunmajsa town 1 information boards made and installed at Bodoglár project site 1 information board designed for Botanical Garden of SZTE
E4 – Project web site	30/09/2008	ongoing	The website is operating and regularly updated in Hungarian language. <a href="http://www.tartosszegfu.hu">www.tartosszegfu.hu</a> ; <a href="http://www.longlastingpink.eu">www.longlastingpink.eu</a>
E5 – General project branding	30/09/2008	ongoing	Four interviews on the LIFE project were made and broadcasted on local television channels. Two articles were published in local newspaper called Halasi-Tükör. 16 photos were chosen for exhibition.
E6 – Disseminate lessons	30/09/2008	On-going	Participation on the 8th National Conference on Actual Flora- and Vegetation Research in the Carpathian basin with two poster presentation. Poster presentation: 2nd World Scientific Congress – Challenges in Botanical Research and Climate Change. GISDATA International Users Conference 2008. Opatija, Croatia – Poster presentation on the conference titled 'Cooperation, as the key of sustainable development'.
E7 – Layman's report	30/09/2008	Not started	-

F1 – Project management	30/09/2008	ongoing	<p>Technical, financial and administrative arrangements were done to enable the proper running of the Project. Partnership agreement is prepared and signed. All Project staff is appointed and aware of their roles and obligations for completing the Project.</p> <p>Regular reports from project partners make possible the administrative and financial monitoring.</p> <p>Orsolya Mile had led the project until 31 March 2008. From the 1 April 2008 her task was taken over by Tibor Danyik.</p> <p>Although it has been expected at the end of 2<sup>nd</sup> year of the project, 31<sup>st</sup> August 2008, the interim report will be submitted by that deadline, we can only submit our 2<sup>nd</sup> progress report, since we have not spent the amount of money (co-financers' contribution and beneficiary's and partners' contribution) requested for submitting the IR (150% of first payment). Presumably we can submit MTR after most of C1 activities fulfilment.</p>
F2 – Technical meetings	30/09/2008	ongoing	Two technical meetings were held in recent reporting period (25 February and 08 May).
F3 – Independent auditing	30/09/2008	ongoing	Auditor is appointed and an official contract was signed on 15/08/2007.
F4 - Monitoring	F4	ongoing	<p><u>NBmR local project:</u> Based on the protocol of the monitoring, that has been going on since 1998, we prepared a point map of the individual plants of <i>Dianthus diutinus</i> in all the three fixed, 10x10 m quadrates (both divided into 33x33 cm microquadrates).</p> <p>The number of sprigs, the size (on a 1-3 scale), the vitality of the plant, and the number of healthy/injured capsules, flowers and buds as well, had been registered for all of the individuals.</p> <p><u>Field monitoring on the population changes of <i>Dianthus diutinus</i>:</u> Similarly to the year 2007, in accordance with the protocol in 2008 the population of <i>Dianthus diutinus</i> was fully surveyed. Field work began in May and will last until the end of October.</p> <p><u>Monitoring of the regeneration of the vegetation:</u> In accordance with the protocol all 50x50 m quadrates assigned were surveyed on the sites of forest reconstruction and on the site of milkweed eradication as well (Action C1, D2).</p> <p>In the case of the Bodoglár project area forestry interventions took place before the 2008 surveys, therefore considerable changes were detected in the composition of the vegetation.</p> <p><u>Monitoring of the effect of the eradication on the invasive alien species <i>Common milkweed</i>.</u> The pattern of infected patches - registrated by using GPS – was identical with the previous year's. Collection of data was full-scale, for the whole project area. Annex 27;28 shows the collected GPS data coordinates.</p> <p><u>Monitoring of the survival rate of the reintroduced <i>Dianthus diutinus</i> specimen.</u> The survival rate was 87 % taking into consideration the first 200 specimen reintroduced in 2007 autumn.</p>
F5 – Analysis of monitoring	F5	ongoing	<p>All monitoring activity and data handling is going according to the Monitoring protocol's instructions.</p> <p>GPS records are saved and handled in GIS database.</p> <p>Data collection for the year 2008 have been finished, ongoing comparison of data 2007 and 2008 will be finished by October.</p>
F6 – After LIFE-conservation plan	F6	pending	-

# Technical development

## A.1 – Preparation of Natura 2000 management plan

### *Proposed start and end of the action*

10/2006 – 09/2007

### *Expected results*

pSCI management plans prepared for 12 708 ha Natura 2000 area. The Office for Nature Conservation of the Ministry of Environment and Water will approve the Natura 2000 management plans before the end of the project.

### *Achievements*

Habitat mapping of Bócsa, Bodoglár and Csévharaszt project sites was done in 2007. The Natura 2000 management plans are ready for all three project sites and have been submitted to the Ministry of Environment and Water.

### *Action status*

On-going

### *Description of the progress during the reporting time*

Natura 2000 management plans are ready for 12 708 ha Natura 2000 area, including Harkakötöny-Bodoglári homokbuckák pSCI coded HUKN20035 with an area of 713 hectares, and Bócsa-Bugaci homokpuszta pSCI coded HUKN20024 with an extension of 11 724 ha. The management plan of Csévharaszi homokvidék Natura 2000 site was produced, including the habitat maps based on aerial photographs of 2007, archive ecological data and military surveys. The main objective of management plan production is to conserve and improve *Dianthus diutinus* habitats, and to provide an efficient tool for C1 and D1 actions. The Natura 2000 management plans have been submitted to the Ministry of Environment and Water, and a confirmation letter on their arrival had been issued (Annex 1). As soon as the management plans will be evaluated by ministry experts, the public hearing of the plans will take place, including locals, farmers and foresters.

### *Modifications is comparison to the proposal, justification of changes and delays*



## **A.2 – Preparation of the forest management plan and the forest reconstruction actions**

### *Proposed start and end of the action*

10/2006 – 09/2007

### *Expected results*

Preparation and authorisation of modified forest management plan for 12 708 ha Natura 2000 forest area (where relevant, according to the project's strategies) gets ready, the preconditions for the nature conservational management actions are established in form in accordance with the actual forestry management plan.

### *Achievements*

Forest management plan modification is in preparation phase in Bodoglár and Bócsa project sites. Forest management plans are issued for ten years. At these sites they have to be renewed in 2010. Field works on the whole pSCIs will be finished in 2009. Recently data collection and mapping is carried out. Meanwhile yearly forest management plans, which serve as the basis for C1 activities are regularly compiled and submitted to forest authorities.

All forestry activities are carried out in accordance with relevant forest management plan modifications.

***Bodoglár project site:*** The modified forest management plan was received from Kefag Zrt for forestry works carried out in the first quarter of 2008 (Annex 2).

An official request for forest management plan modification for forestry activities to be implemented at Bodoglár project site in the fourth quarter of 2008 has been submitted to Kefag Zrt.. Approved modifications of the plan have not been received in recent reporting period.

***Bócsa project site:*** Permission for ongoing forestry activities at Bócsa is included in the yearly forest management plan of Kiskunság National Park, since the property manager of the area is KNPD (Annex 3).

An official request for forest management plan modification for forestry activities to be carried out at Bócsa project site in 2009 has been submitted to State Forestry Service (SFS).

***Csévharaszt project site:*** The forest management plan of this area is to be prepared this year. There was an official anticipatory negotiation (pre-arrangements) in April, 2008. The final management plan is to be completed until the end of the year 2008.

According to these negotiations, there is no difficulty replanting our treatment strategy to the forest management plan and to get the soil protecting designation of these forest subcompartments.

### *Action status*

On-going

### *Description of the progress during the reporting time*

We concentrate on forestry activity which is relevant to the Project's aims. Therefore the forest management plan will only be modified where necessary to the project.

#### Bodoglár project site:

The modified forest management plan for year 2007 was received from SFS on 28<sup>th</sup> December 2007. On the bases of it a public tendering process was initiated and forestry works have started in February 2008 on 27 hectare. Foresters were negotiated in June 2008 on forestry works due at the end of 2008 and then official request for modification of forest management plan was submitted concerning 17,4 hectare area.

#### Bócsa project site:

The State Forestry Service gave permission for clear cutting in 2008 for a 10,6 ha area and works will be carried out in autumn in accordance with the modified forestry plan for 2008. A modification request was submitted to SFS concerning forestry works of 2009.

#### Csévharaszt project site:

In course of the negotiations about the forest management plan of the site several three-sided discussions (on field as well) were organized by our Directorate involving representatives of Nefag Zrt. (registered forest manager) and the competent forestry authority.

The discussions were successful, and treatment patch borders were finalized.

The treatment patch borders that we created after several conciliatory rounds seem suitable to serve as forest subcompartment borders too, with regards to the pre-arrangements. The forest management planning service is willing to include them in the management plan which means that the treatment patches marked and the planned treatments correspond with the contents of the forest management plan that is under finalisation and which fixes the form of use of the territories for 10 years.

These borders were delivered to the forestry authorities in digital format (Annex 5). On the territories targeted by the proposal the cutting of invasive species, the felling and appropriate treatment of *Robinia*, *Prunus serotina*, *Pinus nigra* and *sylvestris* and *Ailanthus altissima* and also the regeneration with *Populus* is allowed. During the conciliator rounds the forest subcompartments outside the Csévharaszi Borókás TT will be classified as soil protective forests instead of agricultural forests. On areas that are designated to be soil protective it is obligatory to preserve a 40% foliage cover ratio even after the completion of the respective works.

The numbers referred can be interpreted with the help of Annex 4. The filled in areas are the finalized treatment patches, the pink (grassland restoration) and the dark green (forest reconstruction) outlines surround the patches as they were included in the proposal submitted. The identification numbers of territories mentioned in the proposal are printed in italics and pink, the updated territories are marked with bold orange numbers.

Separation could be fulfilled at almost tree-species level based on new aerial photograph series taken in 2007. By means of these photos and field-works we were able to set out that forest reconstruction is not always equal with an artificial alteration on every patch which was marked out for. Namely on several places miscible native tree and scrub species, moreover sprouts of *Populus* and regrowth provide a minimal cover necessary from point of view of forest protection. On the other hand the handling needed area has [extraordinarily](#) mosaic-like structure. It means that cover ratio of arboreal vegetation after removal of invasive trees and

scrub would be the same on certain, smaller patches while on other patches would be bigger than the ordered. This is why on talks with forestries we had to aspire to make bigger handling units than it was planned. So smaller inner differences make an average on the whole area of new forest-part, and so the expected minimal cover by forest is provided. Accordingly an invasive-free, mosaic-like forest steppe with grassland patches can appear which is more favourable for *Dianthus diutinus*. Consequently, it was possible to decide a continuous management, on a far bigger area, than it was planned originally. So size of treatment area has been increased in patches as follows: 15, 18, 20, 24, 31.

*Modifications is comparison to the proposal, justification of changes and delays*

Forest management plans are issued for ten years. At Bodoglár and Bócsa sites they have to be renewed in 2010. Field works on the whole pSCIs will be finished in 2009. The final management plan for Csévharaszt project site is to be completed until the end of the year 2008.

### **A.3 – Plan of the forest nature trail**

*Proposed start and end of the action*

01/2008-09/2008

*Expected results*

A feasible construction plan for the nature trail is ready by 30 September 2008 after consultation with relevant staff.

*Achievements*

The potential track of the nature trail had been identified. Permission for the implementation of the nature trail was officially requested from property manager of the area, KEFAG Zrt.

*Action status*

On-going

*Description of the progress during the reporting time*

The property manager of Bodoglár project site is the KEFAG Zrt., hence official requests must addressed to this company prior to the commencement of the technical design of the nature trail.

Based on the experiences of thorough field walks the most suitable track for the nature trail has been identified crossing different habitats, which could provide most information on the project. The selected track with differently coloured stations could be seen in Annex 6.

*Modifications is comparison to the proposal, justification of changes and delays*

Having at hand the official permission from propriety manager the selection of designer for completing the task could be started immediately, presumably in autumn 2008. Plans are expected to be ready in autumn 2008 serving a base for nature trail establishment, described under C3 action and due in 2009.

## C.1 – Artificial forest restructuring with indigenous species

### *Proposed start and end of the action*

10/2007-03/2010

### *Expected results*

As a result of action C1 approximately 70 ha forest area will be reconstructed according to the habitat demand of the *D. diutinus*. The canopy cover will be reduced from 100% to a maximum of 50%. Totally on 13,5 ha grassland area the non-indigenous tree stand will be eliminated. On the three project sites 455 ha interconnected potential habitat is to be created (see table below).

Project site	Tree cutting (ha)		Forest reconstructing (ha)	Interconnected potential habitat created with reduced forestry activity (ha)
	Forest area	Grassland area		
Bodoglár	44,0	0,0	44,0	160
Bócsa	17,0	2,0	17,0	100
Csévharaszt	8,5	11,5	8,5	195

These habitats will not, or just partly concerned by forestry use and will secure the ground to the long-term survival of the target species.

### *Achievements*

**Bodoglár project site:** Thinning of black pine plantations carried out on a 27 hectare area in the first quarter of 2008.

Maps and management plans are ready for the thinning of the remaining 17 hectares black pine plantation (see A2 in details).

**Bócsa project site:** Chemical treatment and shrub eradication has been started on 10,6 hectare area in August 2008. Cutting of non-indigenous *Robinia pseudo-acacia* is contracted and started on a 5,6 hectare area.

A disintegrator for project purposes was purchased and started operation at this site.

**Csévharaszt project site:** Contracts have been signed and forestry work will start on this project area on the 1<sup>st</sup> September according to the technology determined by DINPD experts.

### *Action status*

On-going

## *Description of the progress during the reporting time*

### Bodoglár project site:

Thinning of black pine plantations carried out on a 27 hectare area in the first quarter of 2008, necessary permits were received on 28 December 2007. The enterprise giving the best offer in the course of public tender was contracted. Forestry works were done between February to April 2008 on 27 ha of the project area (Annex 7).

Detailed description of tree cutting:

Half of the total wood mass of forest parts had been cut. Since most of the trees were thin ones, the number of cut trees was much more than half of total.

*Dianthus diutinus* stands were surrounded by a red strip clearly visible (Annex 8) to avoid occasional trampling by vehicles.

In the prearrangement phase roads were identified what working machines could use (Annex 9) in order to minimize trampling damages.

At certain areas all trees have been cut to provide interconnection between isolated natural habitats, thus creating ecological corridors (Annex 10).

It has been noticed during the monitoring of *D. diutinus* that great numbers of individuals were found under the trees of plantations margins. These marginal lines were thinned somehow more than 50 % eliminating the shading effect of the trees, but not changing the microclimatic conditions drastically.

All working activity was done by hand and all cut wood material was taken from the project area. Deposits for cut wood were marked out on degraded areas (Annex 11).

The whole working process was permanently supervised by persons in charge of Kiskunság National Park and of KEFAG Zrt. as well. Pictures on forestry activities can be seen in Annex 12.

As the work finished all soil damages caused by vehicles have been restored.

Field observations after forestry work ended proved that no natural values have been damaged during the tree cut. On the other hand *A. syriaca* covered larger area than previously due to the trampling effect of vehicles. Special attention was paid towards the intactness of grasslands and protection of *D. diutinus* individuals.

In the summer arrangements were made for the forthcoming forestry activities. The exact localization of relevant forest parts was done and plans were recorded on map, while continuous contact was held with KEFAG Zrt. and plans discussed.

In the second phase 17 hectare thinning of black pine will be done (Annex 13). Permissions for tree cut and forestry plan modification have been requested and works will be carried out presumably in November this year leaving the criteria and the work protocol unchanged.

The long term objective of habitat reconstruction is to change black pine plantations gradually into native tree stands like *Populus alba* on the 44 ha sample area. The permit for planting native poplar species were requested for a 3 hectare area (Annex 14), where thinning had been already done. The area for planting was selected taking into consideration the ecological needs of *Populus alba*. Planting would take place as soon as the permits will be received and weather conditions optimal for planting (autumn, winter 2008), therefore the tree cover will increase resulting the possibility of cutting more pine trees and consequently a continuous thinning activity.

#### Bócsa project site:

Cutting of non-indigenous Robinia pseudo-acacia is contracted and started on a 10,6 hectare area, permits allowing forestry works to be carried out are included in the yearly forest management plan of KNPD (Annex 15).

There were investigations in relevant forest parts concerning shrub cover ratio, ratio of native and non-native trees, dead and alive tree ratio and Robinia wood mass.

A new disintegrator was purchased from the company giving the best offer in the public tender. The exact type of it is VANDAELE TV 18-23 ECOlogic, detailed description can be found in Annex 16. The disintegrator arrived on 11st August, after the trial operation it was used as it was envisaged in the proposal (Annex 17).

Forestry works started on 5<sup>th</sup> August 2008 at Bócsa project site. There are more work phases at this site reconstruction. Companies for implementation were selected for each work phase.

First work phase:

Since Robinia sprouts from both root and stump firstly the trees have to be treated with chemicals in order to prevent it. Trees can be cut after drying. Since the area was covered with shrub, firstly shrubs had to be cut out. For chemical treatment of trees Medallon Premium was used the same as for the eradication of A.syriaca. Robinia individuals with less than 6 cm stem diameter were cut then a whole was drilled on the cut surface where the chemical was injected. The whole was closed with putty to avoid evaporation. A special automatic equipment was used for the injection of the chemical making the treatment as precise as possible (Annex 18).

Robinia trees with stem diameter greater 6 cm were drilled as close to the roots as possible, drilling more wholes into big trees and each whole 6 ml chemical was injected. The effect of the chemical could well be seen after a week, leaves turned yellow than fall (Annex 19).

Cut shrub and valueless wood material was disintegrated and chips were taken from project area (Annex 20) helping grass regeneration in the future.

Second work phase:

Trees treated with chemical dried out two weeks after the actual treatment thus in the future we expect minimal spouting. After the trees dried out the clear cutting of the area has begun (Annex 21), and as a result only native trees have remained in the area.

Arrangements for Robinia clear planned in 2009 (Annex 22) were done and forestry plan modification requested. For the 3 hectare area mapping and wood mass calculation activities started.

#### Csévharaszt project site:

Employing an official public procurement advisor (Gress-ing Kft), we have launched two separate procedures to have the forestry works done, namely the actions C1, D1 and D2. Among other things, the type of the public procurement procedure depends on the registered trustee. According to Hungarian public procurement legislations, in the area belonging to the state-owned NEFAG Zrt a „restricted tendering - negotiative, without public summon” type of procedure had to be conducted, after which we have signed an entrepreneurial contract with NEFAG Zrt. According to the governmental regulation of 2082/2007.(V.15.), the Csévharaszi Borókás Nature Reserve Area should have got under the trusteeship of Danube-Ipoly National Park Directorate at latest by 31<sup>st</sup> December 2007, but this is still only in operation. However, the actual registered forester (Nefag Zrt.) agreed on launching an open procedure. The winner of the above mentioned procedure was Pannon Park Forest Ltd., with which we have signed an entrepreneurial contract for the forestry and chemical eradication works. Both contracts are valid for 2 years. In both cases the favoured bid was close to the estimated cost, thus during the procedure we succeeded in reaching sensible prices. An authorization agreement has been signed with NEFAG Zrt, entitled to authorization, for

handing in accessory plans linked to nature reserves, procuring licenses and appointing the area. Within the nature reserve, due to the delay of handing over property management rights and to the differing applicable public procurement procedure, eradication of *Asclepias* and treatment of *Robinia* sprouts in 2008 were not carried out. It can be stated in both cases that opposite to the areas outside the NRA *Robinia* sprouts are not to be found in continuous large areas (they will appear next year after the cutting (rudimentary shoot) and *Asclepias* patches are smaller and more rare. Removal of invasives eradication of *Asclepias* will not be problematic.

Csévharaszti Borókás TT (Nature Reserve Area, NRA): according to the estimated cover of invasives on the target area (67 ha) 16, 68 hectares (net area) should be treated.

Outside the NRA 45 ha project area, net 7,54 hectares invasives will be treated in 2008 and 2009.

As we mentioned at Action A2 in autumn 2008 all arboreal invasives will be cut and the surface of the stump will be treated with Garlon, branches and tree trunks will be removed from the area latest until February 2009. Contracted forestry actions – that are partly modified since the proposal because of the negotiations and fieldworks that had been done – and precise technology are written in the annexes of the public procurement procedure documentation.

Summary of the specified technology:

#### **Arboreal invasives, 5 cm < diameter**

Cutting of trees: not to damage the indigenous vegetation and the soil during the actions: this should be in focus of the works. All invasive trees are to be cut with chain saw, warily, with the possible lowest stumpheight. The cut surface has to be handled with 'Garlon' (*Robinia*, *Prunus*), in case of *Ailanthus* 'Banvel'. Transfer, track of transportation, spoil area, burning place of branches are to be traced out by DINPD. To minimize hauling damage the method of forwarding cut material is defined in every patch in a chart.

Works are partly allowed to be done by high tech machinery, but inside the TT forestry works has to be done by hand or by smaller machines (depending on the lie of the land) or after the vegetation period in winter, taking special care of the grassland.

Schedule, actions

1. 09. 01. 2008– 10. 31. 2008 Cutting of *Robinia*, *Ailanthus*, *Prunus serotina*, handling of the stump with chemical within 3 days
2. 09.01. 2008 –01.02.2009 transfer of chopped material, site clearing, burning of branches

#### **Forest reconstruction by pit-planting**

Technology detailed hereinafter will be used on 0,5 ha outside the Nature Reserve Area on the treatment patch No. 17 (Annex 4). On this area there are residues of the native vegetation. *Robinia* stands were cut without using chemicals in 2004 that caused sprouting. Thanks to the extreme climate sprouting was not very successful, NEFAG changed the status of area - with the approval of Forest Inspectorate - from 'forest' to 'clearing'. This non-traditional, unknown forest regeneration technique is acceptable for the forestry only on this area where regeneration is not obligatory. However, in our view with the appropriate care this technique can be successful as well.

Schedule, actions in 2008

1. Preparatory actions  
08.01-08.15. 2008 stem grinding



09.01-09.31 2008 chemical handling of *Robinia* sprouts – spraying or coating one by one using Lontrel

2. Planting

09.01 – 11.15. 2008 1500 one year-old white poplar (local propagation material) seedling using a hole-digger. Irregular placing of trees.

*Modifications in comparison to the proposal, justification of changes and delays*

## **C.2 – Install infrastructure to improve control of preserve zone**

*Proposed start and end of the action*

01/2007-06/2007

*Expected results*

Six gates will be installed at Bócsa project site by the end of June, 2007.

*Achievements*

All six gates have been installed in spring 2008 for the protection of Bócsa project site.

*Action status*

Completed

*Description of the progress during the reporting time*

The six gates had been installed for the protection of Bócsa project site in April 2008, after receiving the official permit for putting them out (Annex 23). They were placed at illegal road junctions, where one way is going across the project area hence drivers could notice the gates in time and can continue their drive on the other road. Five gates were installed right at the border of the project site, the sixth one was put out a bit further to completely ban the traffic of an illegal road that winds through the project area. Naturally all gates are situated inside the Natura 2000 site borders (Annex 24). Gates are painted black therefore light-reflecting stickers were put on them to avoid accidents (Annex 25). All gates could be opened with a uniform key therefore trespassing for unofficial persons became impossible.

*Modifications in comparison to the proposal, justification of changes and delays*

### **C.3 – Construction of a nature trail**

*Proposed start and end of the action*

04/2009-10/2009

*Expected results*

The possibility to visit the site in such an organised way will reduce the chance of direct and unwanted trampling and demolition.

The number of visitors will reach 1000 people per year.

The practical nature conservation's concrete realization will present a positive example and a hopeful vision to the public.

*Achievements*

*Action status*

Not started

*Description of the progress during the reporting time*

*Modifications in comparison to the proposal, justification of changes and delays*

### **C.4 – Nursery for ex-situ propagation of *Dianthus diutinus***

*Proposed start and end of the action*

01/2006-12/2006

*Expected results*

The result of the action is a 576 m<sup>2</sup> nursery in the Botanic Garden of the University of Szeged available for growing and handling 15000 plants provided a safe site for the ex-situ propagation.

*Achievements*

The nursery is surrounded by fence and the surface for the growing pots is covered by geotextile (Annex 26).

*Action status*

Completed

*Description of the progress during the reporting time*

*Modifications in comparison to the proposal, justification of changes and delays*

## D.1 – Eradication of non-indigenous *Asclepias syriaca*

*Proposed start and end of the action*

06/2007-08/2010

*Expected results*

Clear away the whole stand of *Asclepias syriaca* from the infected areas.

Project site	Bodoglár	Bócsa	Csévharaszt
Infected area estimated in the project documentation (ha)	16	20	17

*Achievements*

Public tender was done for Kiskunmajsa-Bodoglár and Bócsa project areas; contracting for the external assistance.

Elaboration of the detailed working protocol and daily working routine of the contractor based on the *Asclepias syriaca* monitoring results (Action F4, F5), but the daily routine was largely dependent on the actual weather conditions.

2nd year handling was completed in Kiskunmajsa-Bodoglár and Bócsa project areas.

Csévharaszt project site: On areas in property management of NEFAG (outside NRA) milkweed stands were precisely recorded and treated twice with chemicals.

*Action status*

On-going

*Description of the progress during the reporting time*

According to proposal we have expected that after treatment relative cover of milkweed infected area will be halved by second year. GPS data of 2008 concerning this action can be seen below:

Project site	Project area (ha) = traversing area (ha)	Várt relatív borítás a 2007-es kezelés után	Measured (GPS) infected area (ha)	Real average relative cover (%)
Kiskunmajsa-Bodoglár	160	30-40%	42	Varied between 1% and 70%, mostly between 10-30%
Bócsa	100	30-40%	5,5	Varied between 1% and 60%, mostly between 10-25%

After summerizing the precise GPS data collecting results it can be seen that at Bócsa project site 5,5 ha is infected with *A.syriaca* compared to the 10 ha of 2007, while at Bodoglár project site slight increase could be experienced from 36 ha of 2007 to 42 ha. Analysis of results of GPS data collection is described under F5. Precise GIS data can be seen on maps (Annex 27, 28).

Chemical treatment was carried out the same way as in previous year. The used chemical: Medallon Premium (Syngenta).

During the treatment it was essential not to cause any damage to natural values.

Supervising and planning of the chemical treatment field works on a day to day basis was absolutely necessary due to the fact that the vegetation period of 2008 was rich in precipitation which made the chemical treatment of *A.syriaca* more difficult. Falling raindrops could easily wash down the chemical sprayed on the leaves hence the effect would have been controversial since the chemical would not kill the milkweed but the plants underground including *D.diutinus*. On the other hand milkweed individuals were much more vital (Annex 29) therefore resistants against the chemical due to the precipitation and even the seed stock of the soil started germination unexpectedly (more detailed description under F5).

Methods of chemical handling were elaborated and used as protocol as following:

- In stands where *A. syriaca* occurred scattered and the grass structure was intact, the leaves of the young plants were coated one by one;
- In stands where the relative cover varied between 30%-70% the handling method was spraying from pressurised container (2 litres). This equipment allowed more precise handling than the man power machines;
- Since during the second treatment we have not found milkweed stands with more than 70% relative cover, man power spray machines were not used.
- Freshly germinated individuals could have been treated only with brush which was impossible due to their large numbers. Two litres hand sprays could have been used but since the seedlings were very small, with the use of this treatment method it would have been not just milkweed individuals but surrounding grass vegetation affected causing great environmental damage.
- Seedlings of 2008 will be treated in 2009 as they will be big enough for treatment being their size of minimum 30 cm then.

Chemical treatment started on 13<sup>th</sup> May 2008 when the plants' size had reached the minimum 30-35 cm. Each infected patch was treated three times until 15<sup>th</sup> July.

Exact results of second year's treatment will be seen after analysing data of 2009 GIS data collection. According to visual observations the treatment efficiency seems about 70-85% and it can be stated that the surrounding vegetation was not damaged at all.

#### Csévharaszt project site:

NEFAG started treating *Asclepias* in a covenanted way. This includes spraying with Medallon twice, all invasive plants one by one. *Asclepias* occurs in Csévharaszt scattered, smaller patches inside the indigenous vegetation. NEFAG did the fieldwork, outlined the target species stands with GPS. (Annex 30). Outside the NRA altogether 1,4 ha of *Asclepias* was treated. Inside the NRA eradication is going to start in 2009.

During handling undergrowth was not damaged. However, rainy weather caused problems: although leaves were shriveled up, after a rainy period they started to grow new shoots. The plants alive just shed their leaves and begin to grow again and due to chemical stress produced heavy crops. After that they were treated again. The successfulness of this handling can be measured off next spring.

In virtue of detailed fieldwork amount of *Asclepias* is lower than it was estimated in the proposal. However, with these circumstances (rainy spring/summer) treatments are not that successful as they should be. This may causes a need of repetition in treatments which as a matter of fact means bigger area, higher number of hectares.

*Modifications in comparison to the proposal, justification of changes and delays*

## **D.2 – Follow-up treatment of arboreal invasives: *Robinia pseudoacacia*, *Ailanthus altissima*, *Prunus serotina***

*Proposed start and end of the action*

07/2007-03/2011

*Expected results*

On the whole territory the forest reconstruction and the grassland restoration activities regarding arboreal invasives will be completed. On the whole project territory the reconstruction of approximately 46, 5 ha area will be completed by the follow-up treatments of arboreal invasives, according to the following data:

Project site	Area (ha)
Bodoglár	2,0
Bócsa	17,5
Csévharaszt	27,0

*Achievements*

At areas where D.2 action occurs most efficient treatment methods were selected, and chemicals to be used for the treatments were identified for different arboreal invasive species (*Robinia pseudo-acacia*, *Ailanthus altissima*, *Prunus serotina*).

Csévharaszt project site: Mechanical and chemical treatment of *Robinia* stands with sprouts have started outside of NRA according to schedule. Post-treatment inside the NRA will take place next year.

*Action status*

On-going

*Description of the progress during the reporting time*

Bodoglár project site: The 27 ha thinned *Pinus nigra* plantation does not need this kind of action, since the species does not raise sprouts from the logs, nor from the roots.

Bócsa project site: The 10,6 hectare clear cut *Robinia* forest (2008) will presumably raise sprouts next year. Their extension largely depends on the efficiency of preventive chemical treatment. Arrangements of the treatment will start in spring 2009 for the 10,6 ha, including

field observations to estimate sprouting rate, which will determine the actual treatment to be carried out expectedly in June 2009.

Csévharaszt project site: This action has also been included in public procurement procedure. On areas outside the heavily sprouted parts are to be found, which, due to the very rainy weather this year, started to grow even more quickly.

The technology of the extermination of these sprouts has been defined for 2008 as follows:

1. 06.01 - 06.30. 2008. mechanical handling, cutting of sprouts 1.
2. 08.01 - 08.31. 2008. mechanical handling, cutting of sprouts 2.
3. 09.15 - 09.31. 2008. coating one by one or spraying by man power spray machines

The extermination of sprouts inside the Nature Reserve Area (NRA) is scheduled for next year, with the same technology: mechanically and chemically.

Sprouts growing around the treated logs are cut down to ground level. Mechanical handling is executed twice in the given time.

The chemical treatment of the sprouts is done when they reach a length of 25-30 cm. The technology of this treatment is coating one by one or spraying. In the given time, the chemical agent is passed onto the surface of the sprouts by low-spreading spraying. For invasive tree species, the method of chemical treatment is the following. In case of *Robinia* and *Prunus serotina* chemical treatment is carried out once, after the second mechanical handling. In case of *Ailanthus* it is executed twice, once after each mechanical treatment. Applied chemicals are "Lontrel 300" in case of wattle, "Medallon Premium" in case of *Prunus serotina* and „Banvel" in case of *Ailanthus*.

The total area, where stands of arboreal invasives are found and treated recently and in the future in hectare: 67,25 ha inside the NRA, 42,86 ha on areas managed by NEFAG and 1,43 ha more later in 2009. It means that the total area, where stands of invasive trees occur is 111,5 ha, with a coverage of 30-40 % needed to be post-treated. Although this area is slightly larger than envisaged in original proposal, but presumably allocated costs will cover all expenses.

*Modifications is comparison to the proposal, justification of changes and delays*

### **D.3 – Ex situ propagation and re-establishment of *Dianthus diutinus***

*Proposed start and end of the action*

09/2006-08/2011

*Expected results*

The result of this action will be approximately 15 000 newly out-planted *Dianthus diutinus* individuals of different age with the appropriate genetic diversity and reproductive capacity. These plants make the existing small population fragments into large units to assure the successful survival of *Dianthus diutinus*.

*Achievements*

Seed collection took place in the first and second part of the vegetation period. The raising and investigation of the plants in the nursery is continuous.

Samples for soil seed bank investigations have been collected and are being investigated.

*Action status*

On-going

*Description of the progress during the reporting time*

200 individuals were outplanted in the autumn of 2007 at Bodoglár. Most of the plants have survived in the wild.

Appropriate populations were marked out for seed collection at all project sites then the necessary quantity of seeds was collected. Seed collection was done at two different time intervals in 2008, in the first and second part of the vegetation period.

Germination rate and survival rate of the seedlings have also been examined, while they were raised. Results have shown that there is only a slight difference in the above mentioned parameters of seedlings from different populations. Grown up individuals will be outplanted in October-November to the same project area where their seeds have been collected from. The permission was granted for the outplanting from the National Inspectorate for Environment, Nature and Water (Annex 31).

*Modifications in comparison to the proposal, justification of changes and delays*

Besides outplanting an occasional transplanting will also take place at Bodoglár area. Approximately 40 individuals can be found in the fire prevention strip of MOL Zrt. awaiting sure destruction due to security weed control of the strip. The essential permit has been received (Annex 32), and expectedly the plants will be transplanted to a project area in November 2008.

Since samples from different project areas are showing heterogeneity presumably more genetic investigations will be needed, after results of the analysis will have arrived. The extra costs of these genetic investigations could be balanced from available cost of external assistance or travel budget category taking into consideration '10 % rule' of LIFE Common Provisions.



## **E.1 – Foresters informed and included**

### *Proposed start and end of the action*

10/2006-08/2011

### *Expected results*

There will be 5 meetings at all projects sites until 2011  
1000 pieces of stickers will be produced and distributed among target groups  
300 pieces of badges will be produced in 2006

### *Achievements*

The KEFAG Zrt. property manager of Bodoglár site organized a national meeting for foresters on 22<sup>nd</sup> July 2007 with the participation of project team (Annex 55). (<http://www.kefag.hu/vandorgyules/index.html> See: Program 7th) Forest parts involved in the forest restructuring have been visited and applied management method discussed. Regular meetings have been held with local foresters in order to implement forest activities properly from conservation point of view. Potential designers of the stickers have been selected.

### *Action status*

On-going

### *Description of the progress during the reporting time*

A special meeting was organized at Bodoglár project area on 15<sup>th</sup> January 2008 prior to actual forestry works. Minute of the meeting attached in (Annex 56). Regular meetings have been held with local foresters in order to implement forest activities properly from conservation point of view. These regular meetings are essential for obtaining permissions for forestry works and to identify target plots for forest reconstruction. Forest planners will compile forestry plans to meet conservational goals on target areas taking into consideration the borders set up by us (Csévharaszt). Potential designers of the stickers have been selected.

### *Modifications in comparison to the proposal, justification of changes and delays*

Best design to be appeared on the stickers will be selected by project team in next reporting period after that the production of the stickers will immediately start and the dissemination of the product will be done among target groups. Due to personnel changes in project management the production of the badges have not yet started, since handing over tasks and assuring the continuity of management work required more time than expected and C and D actions were taken into consideration as priorities in the project. We have also been informed that LIFE and Nature2000 logo must appear on the badge which makes the work much more complicated (Since these logos are coloured ones the product has also must be coloured if we must include them instead of the original

conception of being metal coloured plant shaped badge.) For that reason we will presumably produce metal badges with enamel layer on it. This delay does not endanger general project objectives envisaged in the original proposal.

## **E.2 – Locals informed and included**

### *Proposed start and end of the action*

10/2006-08/2011

### *Expected results*

- 15000 pcs of leaflets for Kiskunság project sites in Hungarian
- 4000 pcs of leaflets for Kiskunság project sites in English and German
- 10000 pcs of leaflets for Csévharaszt project site
- 200 boxes of puzzles
- plant picture appear on the back of 25000 spa tickets
- 100 pcs of fridge magnet.

### *Achievements*

3000 pieces of leaflets have been printed out on the Kiskunság project sites in Hungarian, and 1000 pieces issued both in English and German languages.

12000 pieces of leaflets for Csévharaszt were produced as well as 1000 pieces of folders with the plant picture and all relevant logos.

10000 pieces of SPA tickets were issued with the plant picture.

The design of the fridge magnet has already been started.

### *Action status*

On-going

### *Description of the progress during the reporting time*

The Hungarian version of the leaflet on the Kiskunság project sites have been translated into English and German languages. The press offering the best price has been contracted. Leaflets are printed on recycled paper in A4 size. 3000 pieces Hungarian, 1000 English and 1000 German have been printed out (Annex 33). Naturally the LIFE and Natura2000 logos appear on the leaflets as well as those of the co-financer and project organisations.

12000 pieces of leaflets for Csévharaszt project site as well as 1000 pieces of folders with the plant picture and all relevant logos have been printed (Annex 35).

Negotiations with the director of Jonathermal SPA about the SPA tickets have been carried out. Three presses gave an offer for the product and the best priced offer has been selected. SPA tickets are sized A6 with a Hungarian text on the LIFE project, on the plant itself including a picture of the species (Annex 34). The LIFE and Natura2000 logos appear on the leaflets as well as those of the co-financer and project organisations. There have been 10000 pieces of such tickets issued for the 2008 bathing season.

Local Government of Kiskunmajsa has selected the designer of the fridge magnet providing the best offer.

Two public events have been organised at Csévharaszt project site together with local Society and the Municipality on 3<sup>rd</sup> May and 2<sup>nd</sup> August 2008. Local teachers and visitors interested were introduced with LIFE-Nature project, its objectives and importance. Children program included plays about the plant, its habitat and nature conservation (Annex 36).

An Ombudsman Meeting was held at Ócsa Military Base in the organization of Infrastructural Agency of Ministry of Defence on 12/09/2008 aiming to introduce the connection between nature conservation and military training for the Ombudsmen and the Minister. DINPD presented a photo exhibition and a special exhibition tent while the director of the national park held a short lecture and underlined the importance of natural values found in the training area including *Dianthus diutinus* (Annex 37).

Leaflets and folders have been disseminated at all public events.

*Modifications is comparison to the proposal, justification of changes and delays*

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### **E.3 – Installing information boards**

*Proposed start and end of the action*

04/2008-09/2008

*Expected results*

Kiskunmajsa-Bodoglár	6 information boards maintained by KVÖ
Bócsa	3 information boards maintained by KNP
Csévharaszt	3 information boards maintained by DINP
Botanic Garden Szeged	1 information boards maintained by SZTE
Kiskunmajsa town	2 information boards maintained by KVÖ

*Achievements*

3 information boards made and installed at Csévharaszt project site

3 information boards designed for Bócsa project site

2 two information boards are being designed for Kiskunmajsa town

1 information boards made and installed at Bodoglár project site

1 information board designed for Botanical Garden of SZTE

*Action status*

On-going

*Description of the progress during the reporting time*

Location of the 3 information boards at Csévharaszt has been identified and they were produced by external assistance including all logos requested. They were installed at the

village centre at the entrance of Borókás protected area and fenced off village population of *Dianthus diutinus* as shown on attached map (Annex 38, Annex 39).

3 boards for Bócsa project site and 1 board for Botanical Garden were designed and will be installed in autumn 2008. The design of the boards for Kiskunmajsa has not been finished yet.

*Modifications is comparison to the proposal, justification of changes and delays*

Five information boards for Bodoglár project site will be part of the nature trail so their production is expected parallel with the establishment of nature trail expectedly in summer 2009.

## **E.4 – Project web site**

*Proposed start and end of the action*

01/2007-08/2011

*Expected results*

An up-to-date web site informing the broad public about the project will be created by September, 2007. It will help networking with similar plant conservation projects, and disseminate information on project results.

We expect 10 000 visitors to the website over the project period.

*Achievements*

The website is operating and regularly updated in Hungarian language.

*Action status*

On-going

*Description of the progress during the reporting time*

The website is regularly updated with a direct link to all dissemination products (leaflets, conference posters and TV interviews).

Invitation on the events organized in the framework of LIFE-Nature project is also appear on the website, thus informing the general public.

*Modifications is comparison to the proposal, justification of changes and delays*

## **E.5 – General project branding and awareness raising**

### *Proposed start and end of the action*

10/2006-08/2011

### *Expected results*

- 2 background materials
- 1,000 pcs posters
- 1000 pcs DVDs
- exhibition of 50 pcs photos
- 2500 pcs postcards
- 2 press conferences and 5 press releases
- 20 articles

### *Achievements*

Four interviews on the LIFE project were made and broadcasted on local television channels. Two articles were published in local newspaper called Halasi-Tükör. 16 photos were chosen for exhibition.

### *Action status*

On-going

### *Description of the progress during the reporting time*

Two interviews made with Halasi TV, the first in April, the second in June. On the website of the TV channel these interviews can be found and watched at. Links for the site appear on the official website of the project, too. The main topic of these interviews was about nature conservation management activities at Bodoglár project site including eradication of *Asclepias Syriaca*, forestry activities and also on *D. Diutinus* monitoring.

The local TV channel of Kiskunmajsa made two interviews in 2008 the first in April, the second in June. Since this channel has no Internet Archive these interviews are not available yet on the website. All interviews made during recent reporting period can be found at attached DVD.

Two articles were published at local newspaper called Halasi-Tükör based on the interviews (Annex 40).

The photo material for the exhibition is being collected, 16 pictures have already been selected.

A field trip is being organised for 13/09/2008 together with MOL (Hungarian oil company), since a large population of *D. diutinus* can be found on their estate (Annex 41).

### *Modifications is comparison to the proposal, justification of changes and delays*

## **E.6 – Disseminate scientific and management lessons**

### *Proposed start and end of the action*

04/2007-08/2011

### *Expected results*

- 5 scientific articles
- Presentations are held at least ten times on workshops and conferences
- Direct networking with other LIFE projects on conferences

### *Achievements*

- Participation on the 8th National Conference on Actual Flora- and Vegetation Research in the Carpathian basin with two poster presentation.
- Poster presentation: 2nd World Scientific Congress – Challenges in Botanical Research and Climate Change.
- GISDATA International Users Conference 2008. Opatija, Croatia – Poster presentation on the conference titled 'Cooperation, as the key of sustainable development'.

### *Action status*

On-going

### *Description of the progress during the reporting time*

Between 29/02/2008 and 02/03/2008 we participated on the 8th National Conference on Actual Flora- and Vegetation Research in the Carpathian basin with two posters (Annex 42) <http://florakonf.szie.hu/hu/node/208>

A poster was presented on 16/05/2008 on the GISDATA International Users Conference by KNPD expert (Annex 43).

Poster presentation on the 2nd World Scientific Congress on Challenges in Botanical Research and Climate Change by SZTE (Annex 44).

Professional co-operation was established with the researcher of Ecological and Botanical Research Institute of the Hungarian Academy of Sciences, since the Csévharaszt project area is being one of their priority research area for many years. Plans for forest restructuring and on eradication of invasive species have been forwarded to the Institute. Researchers familiar with the area have been contacted in order to obtain their results. A PhD thesis is being compiled including the Csévharaszt Borókás area. We took part in the arrangement of research plan, taking into consideration the objectives of the project. The research is focusing on the regeneration of sand grasslands after eradication of non-native forest plantations.

### *Modifications is comparison to the proposal, justification of changes and delays*

## **E.7 – Production of layman’s report**

*Proposed start and end of the action*

04/2011 – 08/2011

*Expected results*

- 2000 copies of layman’s report in Hungarian and English languages
- A comprehensive publication informing the general public on the objectives, aims, and lessons of the project and species conservation.
- Increased awareness towards the subendemic plant species *Dianthus diutinus*, its habitats and its threatening factors.

*Achievements*

*Action status*

Not started

*Description of the progress during the reporting time*

*Modifications is comparison to the proposal, justification of changes and delays*

## **F.1 – Project management, technical and financial monitoring**

### *Proposed start and end of the action*

09/2006 – 08/2011

### *Expected results*

Technical, financial and administrative arrangements are in place to enable the proper running of the Project. All Project staff is appointed and aware of their roles and obligations for completing the Project. High quality technical reports will be prepared and submitted on time. All the activities described in this application will be implemented on time and within budget.

### *Achievements*

Technical, financial and administrative arrangements were done to enable the proper running of the Project. Partnership agreement is prepared and signed. All Project staff is appointed and aware of their roles and obligations for completing the Project.

Regular reports from project partners make possible the administrative and financial monitoring.

### *Action status*

On-going

### *Description of the progress during the reporting time*

The beneficiary and all partners work together efficiently on the implementation of the project, exchanging technical and financial data in their reports regularly.

All project staff is in place for implementing tasks properly (except guide) (see list in Annex 45).

The beneficiary and its partners maintain up-to-date book-keeping systems which conform to the national law and regulation and can clearly identify the expenditures and incomes related to the project. The beneficiary applies different codes for the EU contribution, the co-financer's contribution and its own contribution in its books-keeping.

The beneficiary submitted an official request on 09 July 2008 concerning the use of a floating exchange rate since the HUF/EURO exchange rate decreased significantly with more than 10% since 1<sup>st</sup> pre-financing payment. The Commission approved our request in its answer of 28 July 2008.



The project costs incurred until the 2<sup>nd</sup> reporting date can be seen in table below (based on the submitted reports of project partners):

Cost category	Total cost according to the Commission's decision €	Total costs incurred from the start date to 31/08/2008 €	%
1. Personnel	356 604	97 808	27,43
2. Travel	79 640	7 860	9,87
3. External assistance	874 907	239 544	27,38
4. Durable goods			
Infrastructure	50 180	8 553	17,04
Equipment	120 900	102 966	85,17
5. Land purchase/lease	0		
6. Consumables	39 200	6 981	17,81
7. Other costs	32 400	6 084	18,78
8. Overheads	76 954	9 799	12,73
<b>SUM TOTAL</b>	<b>1 630 785</b>	<b>479 595</b>	<b>29,41</b>

*Modifications is comparison to the proposal, justification of changes and delays*

Although it has been expected, that by the end of 2<sup>nd</sup> year of the project (31<sup>st</sup> August 2008), the mid-term report will be submitted, this time we can only submit our 2<sup>nd</sup> progress report, since we have not spent the amount of money (co-financers' contribution and beneficiary's and partners' contribution) requested for submitting the mid-term report (150% of first payment). Presumably we can submit MTR after most of C1 activities fulfilment.

There have been personal changes concerning the director and the project manager in recent reporting period. György Kállay former director of KNPD was followed by Géza Temesi from 15 November 2007 till 31 January 2008. He was replaced by Dr. Vajna Tamásné from 1 February 2008 on.

Orsolya Mile had led the project until 31 March 2008. From the 1 April 2008 her task was taken over by Tibor Danyik.

For the proper operation of the purchased disintegrator a new personal contract was signed and costs budgeted under personnel costs. Certain monitoring tasks have been contracted for Bócsa and Bodoglár project sites, as in previous year. A forester was employed for three months for wood mass estimation and ecological state assessment and delineation of forest activities, and costs budgeted under personnel. Forest activities are supervised by own forester of KNPD as own contribution.

## **F.2 – Hold technical meetings**

*Proposed start and end of the action*

09/2006-08/2011

*Expected results*

Scheduled meetings will be held with good attendance and on time (7 times in the whole project period), which will help to secure the high priority of the project work for project staff and authorities.

*Achievements*

Two technical meetings were held in recent reporting period (25 February and 08 May).

*Action status*

On-going

*Description of the progress during the reporting time*

The 3rd technical meeting was held at the Headquarters of Kiskunság National Park in Kecskemét on 25/02/2008 focusing on seed collection and outplanting. The protocol of these two important conservation measures have been worked out. Relevant project partners were contributing the event (DINPD and SZTE). The list of participants and minutes of the meeting are attached as Annex 46.

The 4th technical meeting was held on 08 May 2008 together with project mission 2 in the House of Nature in Kecskemét. Project actions' progress have been demonstrated on 4 power point presentations (Annex 47) followed by discussions. The main topic of the meeting was about the actual forestry activities to be carried out at project sites. The indoor session was followed by a field trip to Bodoglár project site, where thinning of *Pinus nigra* plantation was checked, as well as results of *Asclepias syriaca* eradication from year 2007.

*Modifications is comparison to the proposal, justification of changes and delays*

## **F.3 – Independent financial auditing**

*Proposed start and end of the action*

10/2006-08/2011

### *Expected results*

The auditor will be appointed until the end of 2006. The financial revision of the project will be carried out by an independent auditor, whose audit report will be part of the final report.

### *Achievements*

Auditor is appointed and an official contract was signed on 15/08/2007.

### *Action status*

On-going

### *Description of the progress during the reporting time*

*Modifications is comparison to the proposal, justification of changes and delays*

## **F.4 – Monitoring**

### *Proposed start and end of the action*

09/2006-08/2011

### *Expected results*

This action will produce results after the data are analyzed under F.5 about the following:

- Distribution area
- Permanent square sample plots

Monitoring results will summarize the impact of the concrete project actions on the species and its habitat:

- Regeneration process of the reconstructed and restored areas (action C1,D1, D2)
- Results of the ex situ conservation (action C4, D3)
- Stopped further fragmentation of the populations (C2)

### *Achievements*

#### NBmR local project:

Based on the protocol of the monitoring, that has been going on since 1998, we prepared a point map of the individual plants of *Dianthus diutinus* in all the three fixed, 10x10 m quadrates (both divided into 33x33 cm microquadrates).

The number of sprigs, the size (on a 1-3 scale), the vitality of the plant, and the number of healthy/injured capsules, flowers and buds as well, had been registered for all of the individuals.

Field monitoring on the population changes of Dianthus diutinus.:

Similarly to the year 2007, in accordance with the protocol in 2008 the population of Dianthus diutinus was fully surveyed. Field work began in May and will last until the end of October.

Monitoring of the regeneration of the vegetation:

In accordance with the protocol all 50x50 m quadrates assigned were surveyed on the sites of forest reconstruction and on the site of milkweed eradication as well (Action C1, D2). In the case of the Bodoglár project area forestry interventions took place before the 2008 surveys, therefore considerable changes were detected in the composition of the vegetation.

Monitoring of the effect of the eradication on the invasive alien species Common milkweed.

The pattern of infected patches - registered by using GPS – was identical with the previous year's. Collection of data was full-scale, for the whole project area. Annex 27;28 shows the collected GPS data coordinates.

Monitoring of the survival rate of the reintroduced Dianthus diutinus specimen.

The survival rate was 87 % taking into consideration the first 200 specimen reintroduced in 2007 autumn.

*Action status*

On-going

*Description of the progress during the reporting time*

Methods were the same as described in the Report 2007. In the chapter „Monitoring of the regeneration of the vegetation” there is a mistake concerning the description of the method. In the frame of the 50x50 quadrates 2x2 m microquadrate pairs were not set by 5x5 m, but by 10x10 m units. Thus in all the large quadrates 50 pieces of microquadrates are surveyed.

Csévharaszt project site:

2008 Report on the survey of the population (Annex 48)

In the area of the Kiskunság National Park Directorate the survey of Dianthus diutinus populations at Csévharaszt, Ócsa, Nagykőrös was carried out in the same way, by using high accuracy GPS. During this year's field visits, photo takings two small new populations of Dianthus diutinus have been found outside the protected area, but inside the Natura 2000 site. The monitoring of the vegetation with András Kun has been continuing this year. The 2nd recording of the 5 habitat-management and the 3 biodiversity monitoring quadrate have happened by using the same protocol as in the Nagykőrös Steppe Oakwoods (HUNSTEPPICOAKS) Life programme. Therefore recording of the ground state preceding the interventions can be regarded as full-scale. Report on the issue will be presented in the beginning of 2009.

*Modifications is comparison to the proposal, justification of changes and delays*

## **F.5 – Analysis and reporting of monitoring results**

### *Proposed start and end of the action*

10/2006-08/2011

### *Expected results*

Monitoring protocol is ready and available for all project partners to standardize data collection.

All monitoring information gained during action F.4 is stored and available in a GIS database.

### *Achievements*

All monitoring activity and data handling is going according to the Monitoring protocol's instructions.

GPS records are saved and handled in GIS database.

Data collection for the year 2008 have been finished, ongoing comparison of data 2007 and 2008 will be finished by October.

### *Action status*

On-going

### *Description of the progress during the reporting time*

#### NBmR local project (Annex 49)

At sample area I the population stagnated for years (although inner dynamics was intensive, means that there were many new and perishing individuals in the same period.); In 2004 presumably due to the spring and summer that was more rainy than the average, the number of individuals rose, but then in 2007 the extremely dry spring and grazing sheep damaged the population. Besides damages caused by game (rabbit, deer-mastication) are also significant every year at both sample area with natural vegetation (I-II). In 2008 the population was slightly increasing again, due to the more rainy weather. However the piled up dry leaves from poplar trees, and stronger concurrence of grass due to the increased shading is not favorable for the long lasting pink plants.

At sample area II continuous decrease of the population was characteristic until the year 2007. In 2008 the number of individuals was increasing, although it is still far away from the ground state of 1998. The total absence of shading, the sporadic grazing of sheep and the accompanying heavy trampling is unfavorable for the long lasting pink plants.

At sample area III many individuals survived the planting of pine trees, and those were able to regenerate the population for a while. Due to the growing of pine trees and the accompanying shading effect, and the piling of dry pine needles population decrease have begun after 2001.

Partial shading increased the population's chance for surviving during the drought in 2007, furthermore pine trees sheltered the individual plants around them from grazing sheep and game, so in 2007 the population decrease was the smallest in this area compared to 2004 data.

Similarly to the other 2 quadrates the number of individuals was increased in 2008, the population has been doubled on the surveyed area. The cause of the increase might be this year's rainy weather.

On the whole we can say that the precipitating rain following the drought of 2007 had a favorable effect on the population of *Dianthus diutinus*, we have experienced an increase in all the three quadrates. Many juvenile, first-year individual plant appeared, nevertheless the flowering power, the number and the size of shoots have been changed favorably. On the basis of 10 years data series it is conspicuous that the long lasting pink likes a slight shadow, but dislikes full shading and piled-up fallen leaves. In the case of the quadrate III. continuous „migration” of the plants can be examined to the growing edge of the pine crown – in each cases the density of pink plants was the highest on the dripline of the tree, from the strongly shaded parts around the trunk of the trees our flowers retire. At quadrate I. the same migration process can be observed, but due the concurrence of grass and the piled up leaves mentioned above, in spite of the rainy year there was only a minor increase compared to the year 2007, which gave outstandingly bad results. Still the population is far from the ground state.

#### Field monitoring on the population changes of *Dianthus diutinus*: (Annex 50)

In 2004 mapping of the individuals of *Dianthus diutinus* have been carried out in multiple locations by KNP Directorate in the framework of national biodiversity monitoring system (NBmR). Surveys were not extended to all known locations, but nevertheless the data gained then are comparable with the data from 2007. In the Ásothalom site the population dropped; in Bócsa a slight decline happened in spite of the fact that many new individuals have been found, meanwhile in the Bodoglár site significant growing of the population was registered, in spite of the quite bad weather conditions. Significant growing of the population is recorded in the Harkakötöny site as well.

Rainy weather in the year 2008 – as indicated by the analysis of the results gained from the microquadrates – had a positive effect on the population of long lasting pink. Compared to the year 2007, the surplus is 4400 individual. Significant growing (approx. +3600) could be observed in the area of Kiskunmajsa – Bodoglár, thus the biggest population of the species can be found here (8848 individual plant).

Growing of a smaller extent is recorded at all sites of the KNP Directorate's and the military range of the Üllő-Ócsa area. At the same time at the Csévharaszt and Nagykőrös sites a slight decline is recorded.

Site	2007	2008
Ásothalom	101	117
Bócsa	1733	2301
Csévharaszt municipal area	1769	1353
Csévharaszi Borókás TT	1500	1135
Harkakötöny	7184	8490
Kiskunmajsa-Bodoglár	4978	8588
Nagykőrös, Strázsa-hegy	90	68
Nagykőrös, Száraz-dűlő	1046	704
Üllő-Ócsa range	508	556
<b>Összesen:</b>	<b>18909</b>	<b>23312</b>

### Monitoring of the regeneration of the vegetation:

#### *Bodoglár, eradication of Common milkweed: (Annex 51)*

The coverage of Common milkweed is spectacularly reduced following the eradication. The applied herbicide made only a few smaller patches where grass was damaged, so there is a good chance for total regeneration. In quadrat II. some juvenile poplar trees are also killed. In quadrat II. most of the plant litter consists of pine needle, poplar leaves, last year's dry stems of milkweed, the amount of other substances (originating from grass and dicots) is irrelevant.

#### *Bodoglár, forest reconstruction: (Annex 52)*

In the place of cut down pine trees in most cases pine needles litter is left in significant quantities, that's why litter coverage is high, where there is no canopy level at all. The cause of high rate of soil surface without coverage is that litter disappeared locally, and plants were not able to colonize it yet. Disturbance (logging, transport of the logs) also causes (mainly in the areas affected by logging) high rate of uncovered soil surface. At these places the rate of pioneer species, weed in the coverage is slightly higher, real high-rate growing can only be observed in the coverage of Shiny Bugseed (*Corispermum nitidum*) and Green foxtail (*Setaria viridis*).

Disturbance is favourable for Common milkweed, thus its coverage have not been reduced significantly in spite of the eradication.

#### *Bócsa, eradication of Common milkweed: (Annex 53)*

In the area of quadrat I. occurrence of milkweed was less frequent than in quadrat II., thus the eradication has not affected the surface of the vegetation seriously. Milkweed has been suppressed to a minimal extent practically without any damage of the grassland.

In the same time in quadrat II. eradication of the dense stock of milkweed has seriously worn down the grass stock and the poplar sprouts.

Although most of the milkweed were inactive in 2008, the open sand grassland, on one third of the quadrat is completely destroyed, and covered with pioneer and disturbance tolerant species (mainly *Bromus squarrosus*, *B. tectorum*, *Secale sylvestre*, *Eriogonum canadensis*)

Here the amount of litter biomass is also high, mainly consisting of dead plants left from the milkweed-eradication attempt in 2007. Without further disturbance, and because the source of propagulum is given the grassland will be able to regenerate within a few years.

#### *Bócsa, forest-reconstruction: (Annex 54)*

By the beginning of the survey there was no intervention in the area, thus there are no substantive changes in any of the quadrates.

### Monitoring of the effect of the eradication on the invasive alien species Common milkweed.

The treatment executed in 2007, combined with the effect of the droughty vegetation period resulted in a bigger reduction of milkweed coverage than it was expected. In those patches, where in 2007 the milkweed-coverage was up to 60-80% average, this year was only 10-30%.

In the project area at Bócsa the infected area was reduced to almost 50% of the original extent, which means that whilst in 2007 10 ha was infected with milkweed, in 2008 *Asclepias* could be found only on 5,5 ha area.

In the project area at Bodoglár the area of infection is even bigger: it raised from 36 hectare to 42 hectare in 2008. More rainy weather conditions might be the explanation for this fact: seed-bank in the soil germinated, therefore milkweed appeared in new areas.

The other harmful effect was the soil disturbance originated from the thinning of *Pinus nigra*. As the effect of the soil disturbance the sprouting ability of the plants became stronger and the cutting of rhizomas extended the infected area.

The comparison of the precise GPS data collected in 2007 and 2008 can be seen in the table below.

Project site	Measured (GPS-2007) infected area	Measured (GPS-2008) infected area	Real maximum relative cover-2007 (%)	Real maximum relative cover-2008 (%)	Real average relative cover-2007 (%)	Real average relative cover-2008 (%)
Kiskunmajsja-Bodoglár	36 hectare	42 hectare	90%	70%	mostly between 60-80%	mostly between 10-30%
Bócsa	10 hectare	5,5 hectare	90%	60%	mostly between 60-80%	mostly between 10-25%

Vegetation period that's rich in precipitation results in the lack of bigger changes in the percentage of coverage in 2009. The rain of the last year was beneficial, because most of the seed stock stored in the soil („seed bank”) is germinated, thus in the coming years the risk of infection from seeds presumably will be minimal. Additionally, treatments executed year by year ensure that milkweed population will not produce seeds.

Recording of milkweed extension with GPS has slightly been changed at the Bodoglár project area from year 2007 to 2008. As the project area is quite large and the milkweed infected area was much larger then expected, in dense pine plantations milkweed patches were recorded as point shapes in GIS database in 2007. Next year these milkweed patches were recorded as polygons, hence the total infected area had been increased at Bodoglár project site.

#### *Modifications in comparison to the proposal, justification of changes and delays*

Recording microquadrates is accompanied with considerable trampling damage, particularly in the case of quadrat I. and II., both situated on a steep slope of a mound. Surveyors' trampling makes slighter damages in the case a quadrat III. too. As long lasting pink can not tolerate trampling, and the main cause of population decline is grazing and the accompanied trampling we would like to improve a new 'footpath' (presumably ladders and planks) to avoid such endangering factors.



## **F.6 – Production of an after-LIFE conservation plan**

*Proposed start and end of the action*

07/2007-08/2011

*Expected results*

An after-LIFE conservation plan will be produced and will be supplement with the final report to guarantee long term conservation efforts and the continuation of recent programme.

*Achievements*

*Action status*

Not started

*Modifications is comparison to the proposal, justification of changes and delays*