Habitat reconstructions in the LIFE-Nature project for the conservation of the Pannonian endemic Dianthus diutinus

LIFE NAT/H/000104

Steppe Oak Woods and Pannonic Sand Steppes Conference

Kecskemét, 6-8 / 10 / 2011

Project profile

Beneficiary:	Kiskunság National Park Directorate
Project time:	01/09/2006 – 31/12/2011
Budget:	1 630 785 Euro
Partners:	Duna-Ipoly National Park Directorate; University of Szeged; Local government of Kiskunmajsa

The main objective of the project

Stabilize the wild populations of the Pannonian endemic Dianthus diutinus Kit. in its most important sites.

Natural habitats of the species

Mosaics of open perennial grasslands and clusters of native trees, where Dianthus diutinus mostly occurs in the open grasslands.

Reasons of the decline of the population size:

- ***Habitat loss and/or fragmentation***

Reasons of the decline of the population size:

- ***Habitat degradation***

Substantial objectives and aims of the project

Forest reconstruction and grassland restoration of semi-natural habitat network;

Enlargement and unification of the potential areas of D. diutinus on the three main sites which will not be influenced by forestry activity at all or only at a minimal level.

Conservational measures implemented

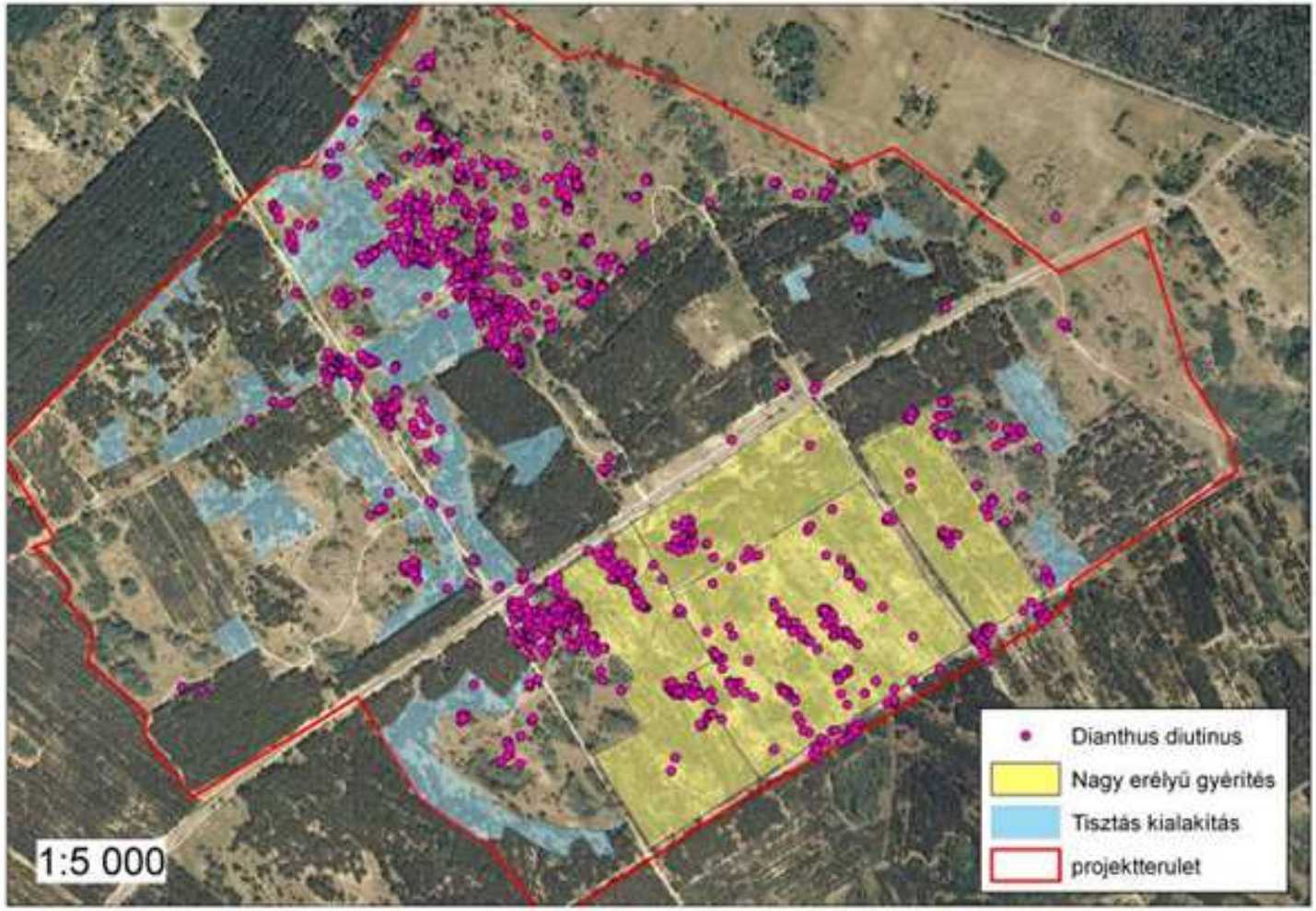
Forest reconstruction

Project site	Tree cutting (ha)	Achievements until 2011 October (ha)
Bodoglár	44,0	27,5 ha thinning start of 17 ha clear cutting
Bócsa	19,0	16 ha cut, 3 ha injected
Csévharaszt	20	28,5 ha cut




Conservational measures implemented

Forest reconstruction Bodoglár

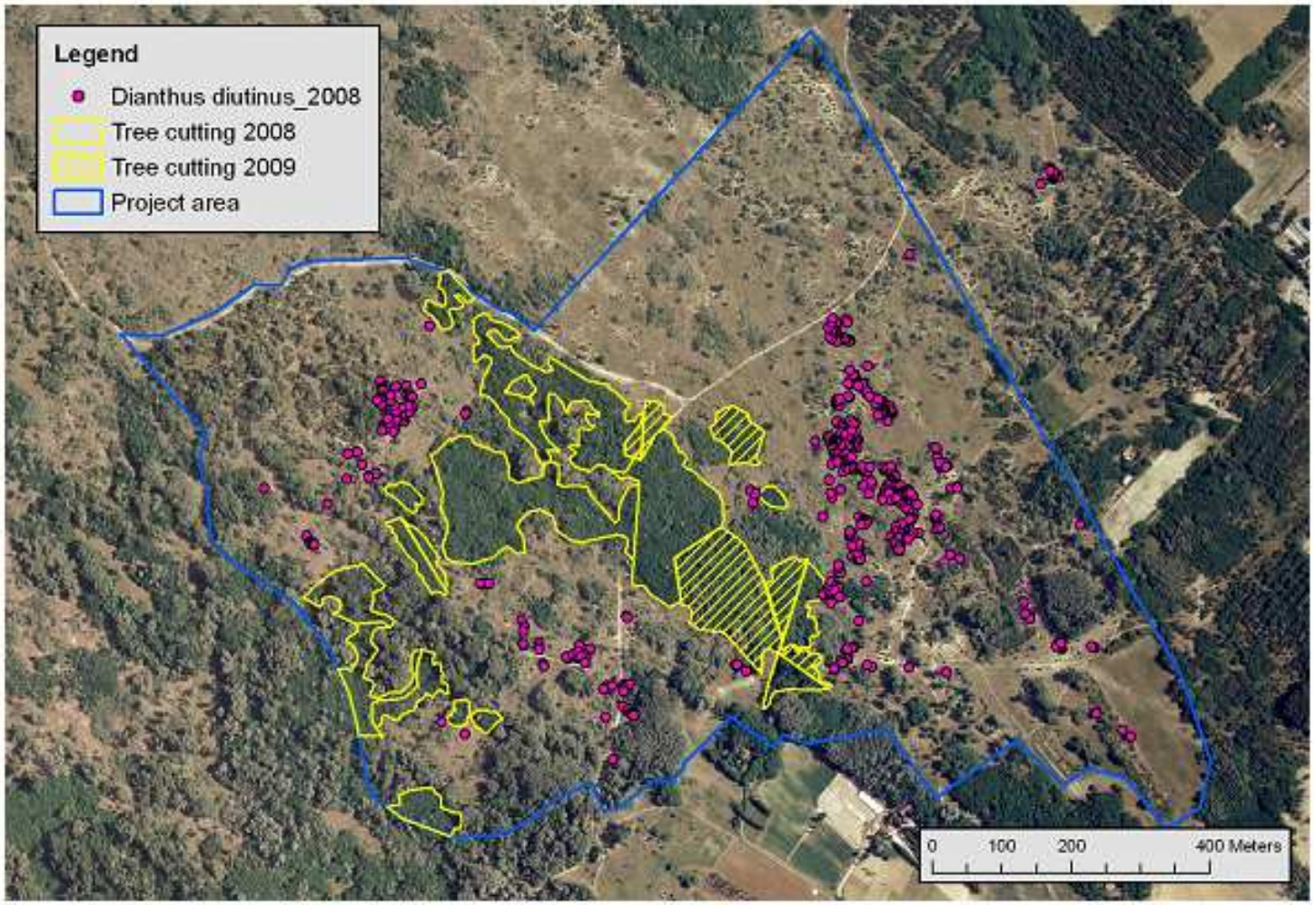


Conservational measures implemented

Forest reconstruction Bodoglár

Conservational measures implemented

Forest reconstruction Bócsa



Conservational measures implemented

Forest reconstruction Bodoglár

Mission 12/03/2009 Kecskemét

Conservational measures implemented

Forest reconstruction Bócsa

Conservational measures implemented

Forest reconstruction

Project site	Follow-up treatment of arboreal invasives
Bodoglár	3,27 ha A. altissima
Bócsa	0,6 ha A. altissima , 14 ha R. pseudo-acacia
Csévharaszt	30 ha, inclusive 1,5 ha A. altissima




Conservational measures implemented

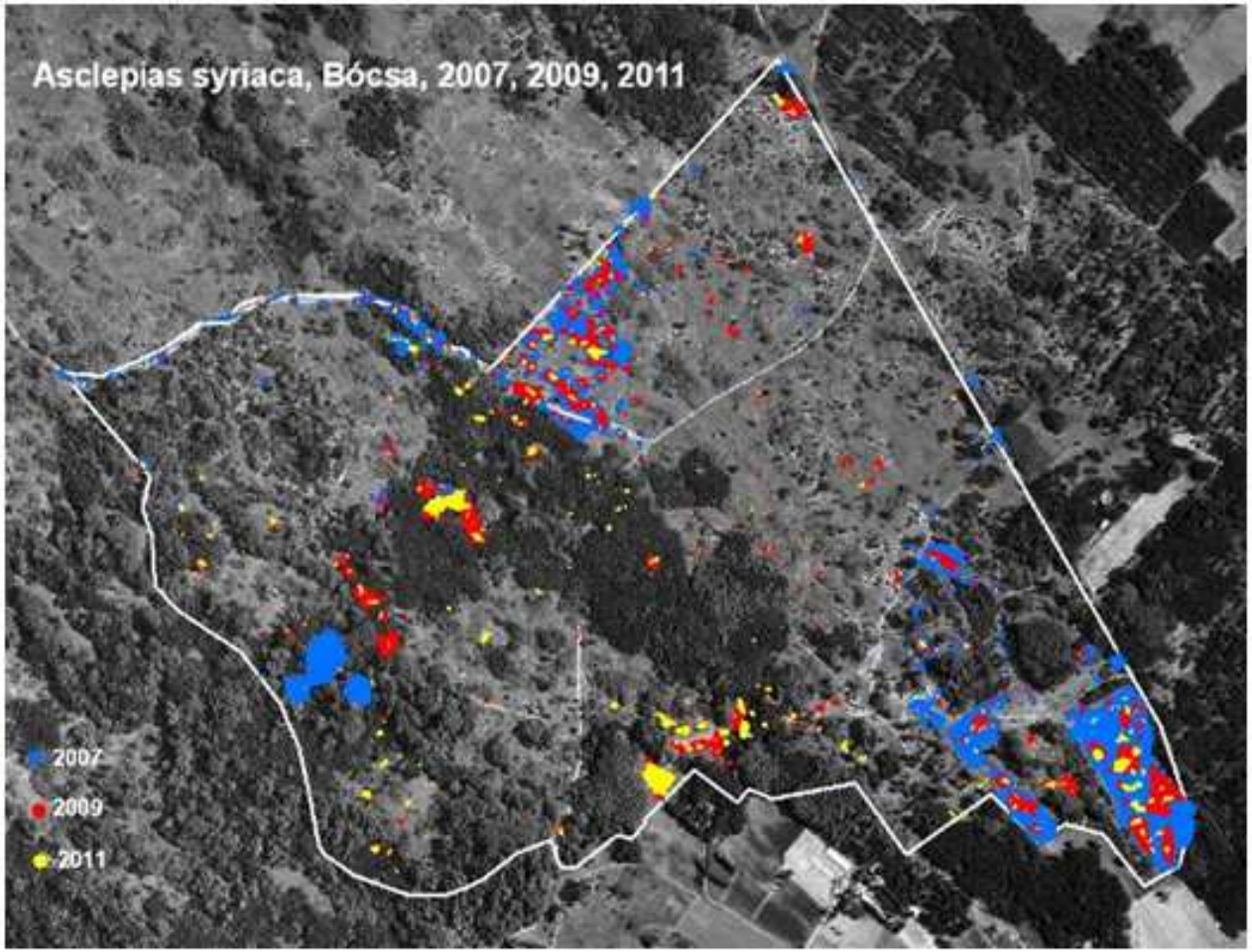
Grassland restoration, A. syriaca eradication, Bócsa project site

Year	Maximum extent of a spot (ha)	Total cover of the plant (ha)	Average size of a spot (ha)	Average cover of the infected area (%)
2007	2,1	6,8	0,06	30
2009	0,23	2,8	0,02	6
2011	0,12	0,88	0,003	2




Conservational measures implemented

Grassland restoration



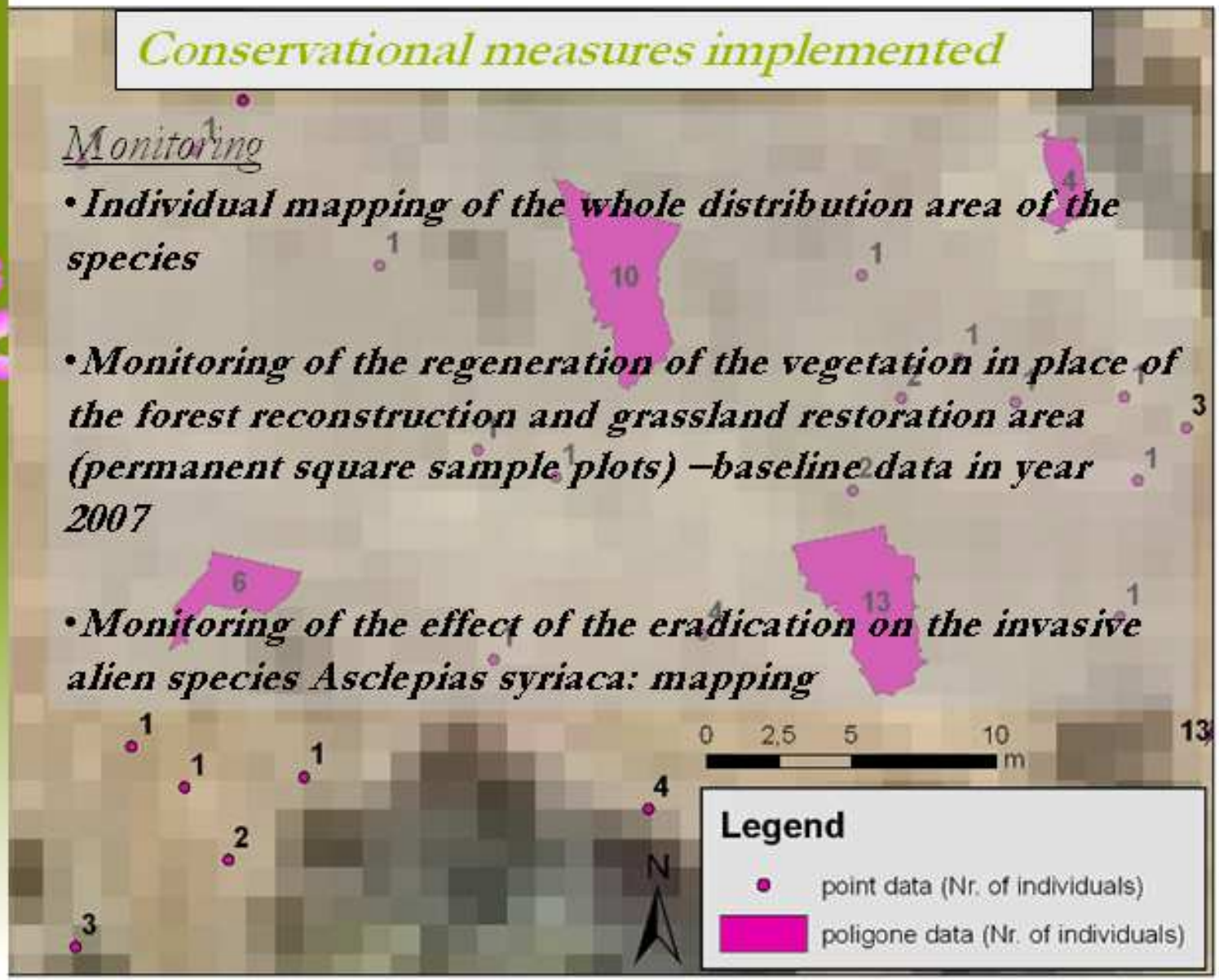
Conservational measures implemented

Monitoring

- ***Individual mapping of the whole distribution area of the species***

- ***Monitoring of the regeneration of the vegetation in place of the forest reconstruction and grassland restoration area (permanent square sample plots) –baseline data in year 2007***

- ***Monitoring of the effect of the eradication on the invasive alien species Asclepias syriaca: mapping***



Conservational measures implemented

Field monitoring on the population changes of Dianthus diutinus

Site	2007	2008	2009	2010
Ásotthalom	101	103	233	228
Bodoglár	5 007	8 590	12 906	16 928
Bócsa	1 753	1 845	3 791	5 710
Csévharaszt TT	1 500	1 138	1 782	1 744
Csévharaszt belterület	1 769	1 353	5 803	5 900
Harkakötöny	7 255	8 483	9 036	10 080
Nagykőrös, Strázsa-hegy	90	68	25	31
Nagykőrös, Száraz-dűlő	1 046	704	988	1 196
Ócsa-Üllő katonai lőtér	508	556	1 386	1 156
Nemesnádudvar*	-	-	10 495	15 262
Pusztavacs*	-	-	15	72
Total	**19 029**	**22 840**	**46 460**	**58 307**

Conservational measures implemented

Field monitoring on the population changes of Dianthus diutinus

Main reasons of the increase:

- extremely wet year of 2010 resulted the appearance of seedlings in great numbers,
- marking of *Dianthus* specimens before forestry works avoided disturbance,
- discovery of new populations,
- monitoring activity itself.

Conservational measures implemented

Nature trail

Conservational measures implemented

Afterlife

- Post treatments: Robinia pseudo-acacia, Ailanthus altissima, Asclepias syriaca

- Agreements with forest managers of the area: further restructuring according to ten years forest management plan

- Monitoring: although in smaller scale

Acknowledgement

- *Partner organisations*
- *Monitoring staff*
- *Kefag Zrt.*
- *Ministry of Environment and Water*

Thank You for the attention!