

Restoration and conservation of priority habitats and species in the Eastern Bakony area (LIFE07 NAT/H/000321)

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Background and Aims of the Project

Natural sites owned by the state and used by the military = relatively undisturbed natural habitats:

- unfavourable conditions for agriculture (rocky limestone and dolomite with very thin soils)
- military training field from the end of the XIXth century – long term isolation from the general public
- huge grassland habitats in relatively good condition and untouched forests

Major objectives of the project:

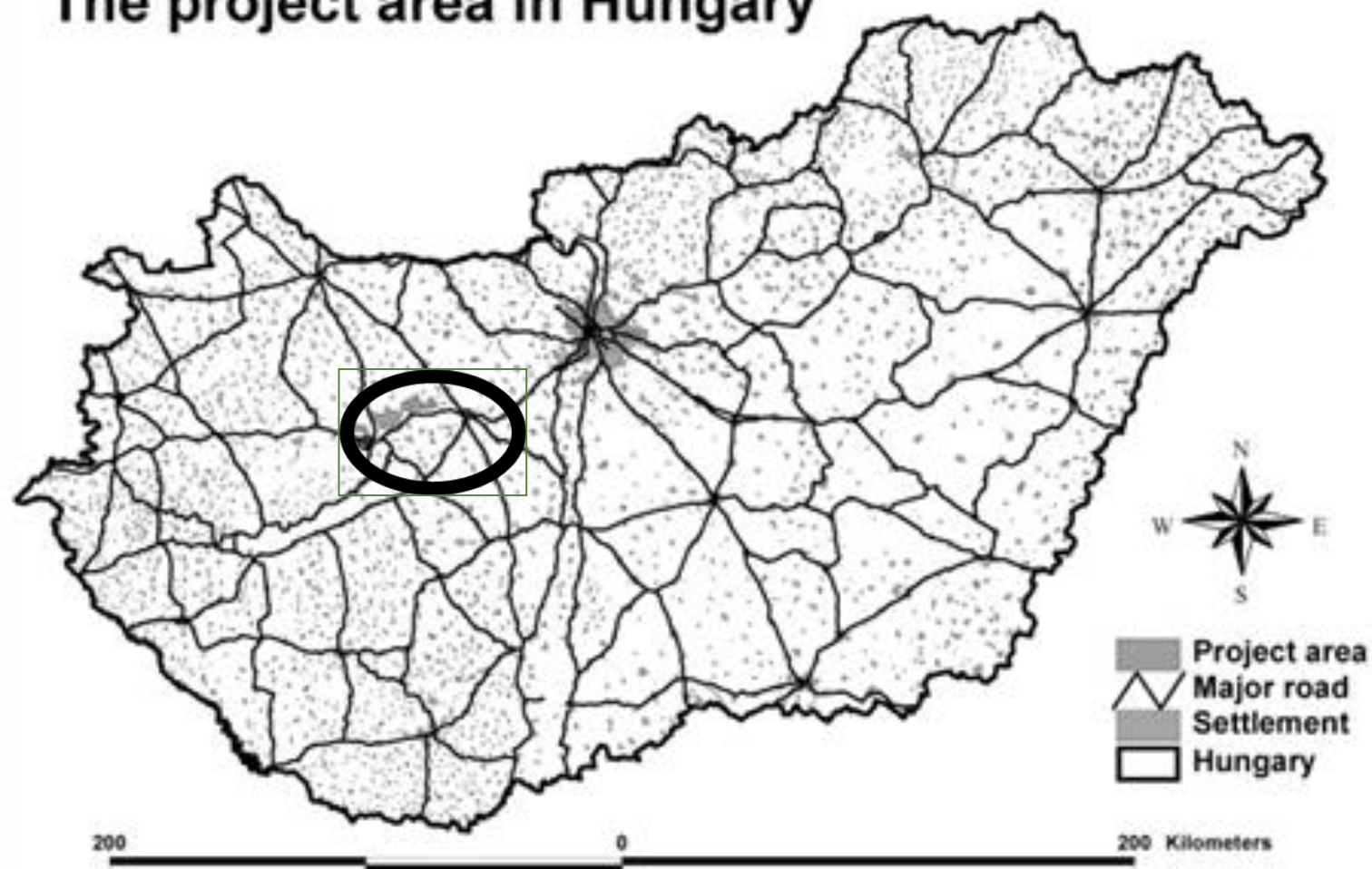
- to halt natural degradation of priority habitats and to preserve priority species;
- to regenerate the harmful effects of past and ongoing military activities;
- to carry out habitat restoration work;
- to maintain and expand grazing management;
- to create a viable conservational plan;
- to apply best practice during and after the project;
- to find the optimal balance between military activities and the nature conservation
- *to extend the Natura 2000 status to the military training field*

The Consortium

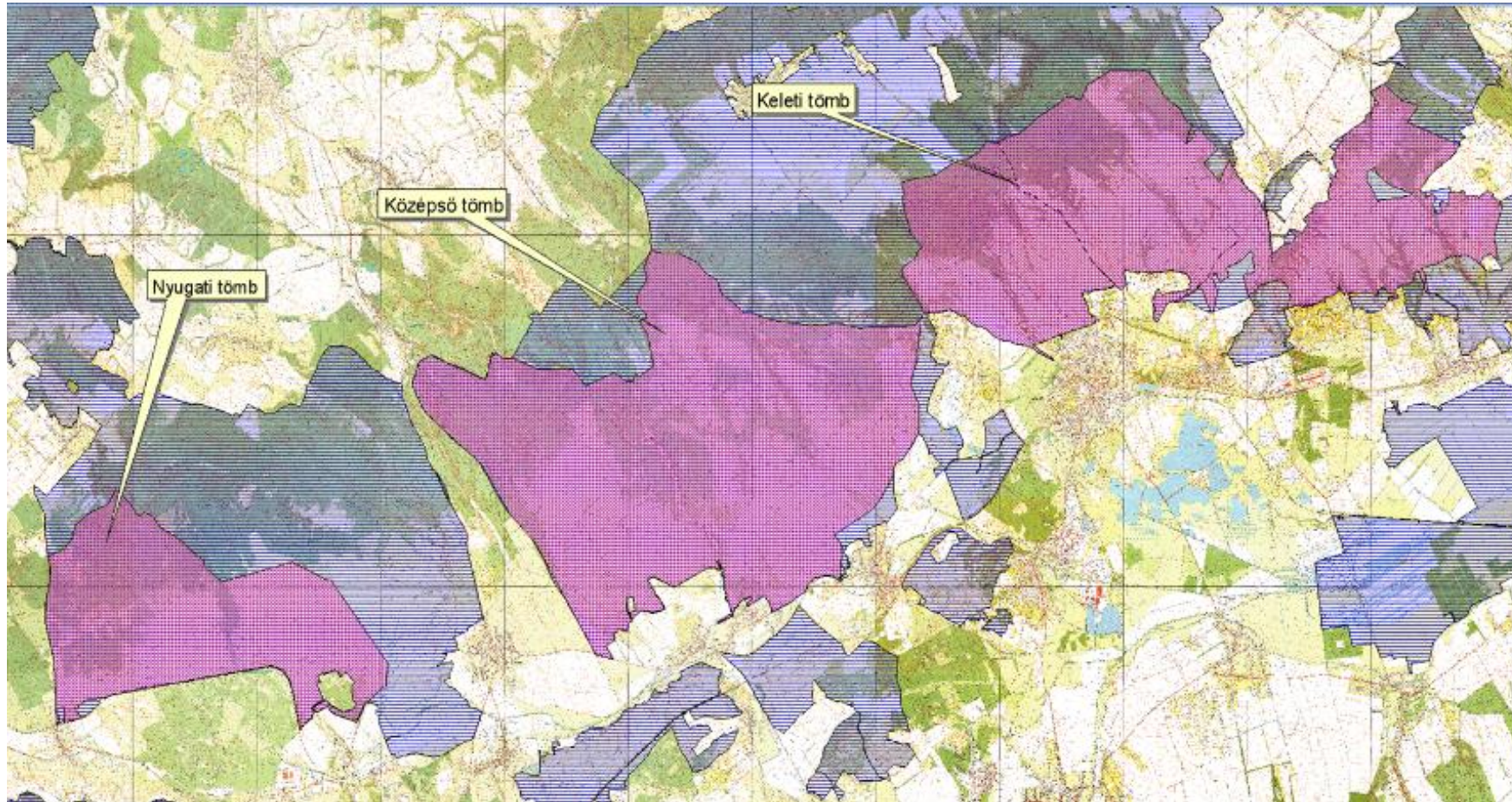
- Ministry of Defence of Hungary (leader)
- VERGA Forest Management Co.
(belonging to the above)
- Balaton-felvidéki NP Directorate
(governmental institution belonging to
the Ministry of Agriculture - nature conservation)
- AquaProfit Engineering, Consulting and Investment Co. (PR-related activities)



The project area in Hungary



Project Area



Várpalota Military Training Field – the largest domestic and NATO training field in Central-Europe (13,318 ha)

Targeted Habitats

- **Sub-Pannonic steppic grasslands (6240)**

covering 40% of the project area

subgroup: dolomite grasslands with *Stipa eriocaulis*

Pannonic woods with *Quercus petraea* and *Carpinus betulus* (91G0)

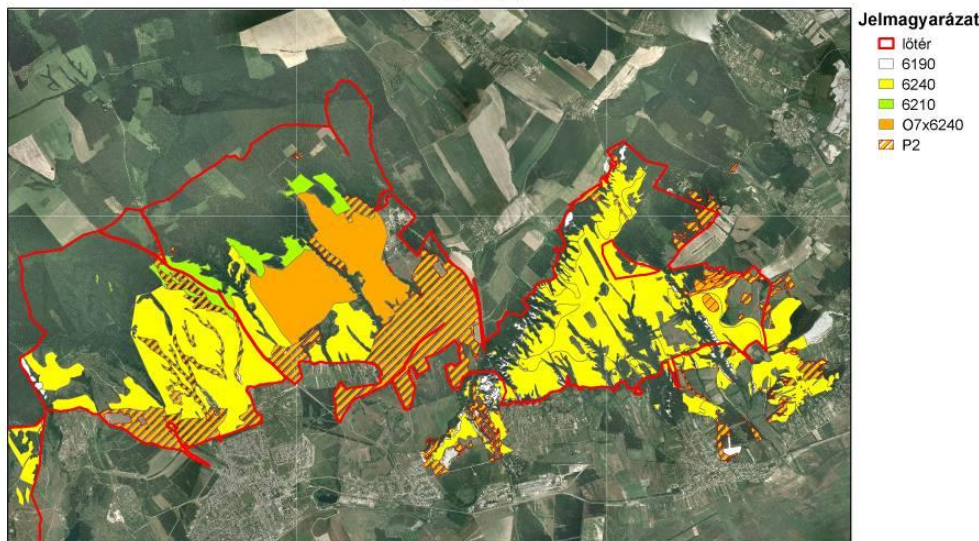
mostly on thick soil layer and on the bottom of hollows

Pannonic woods with *Quercus pubescens* (91H0)

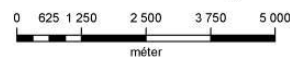
generally on redzina type soils and on south dipping slopes

Medio-European limestone beech forests (9150)

A Várpalotai Lőtér Natura 2000-es gyepjei és cserjésedő élőhelyei
2009-2010



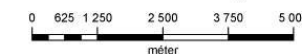
EASTERN BAKONY-LIFE07 NAT/H/000321 A1 Akció felmérései alapján készítette Mészáros András



A Várpalotai Lőtér Natura 2000-es erdei élőhelyei
2009-2010



EASTERN BAKONY-LIFE07 NAT/H/000321 A1 Akció felmérései alapján készítette Mészáros András



Threats to Habitats & Species

Threat / Habitat/Species	6240	8160	91G0	91H0	Serratula lycopifolia	Falco cherrug
Accidental fires	X			X		
Military activity and traffic	X					
Succession of biocoenosis	X		X	X	X	
Disruption of grazing and herding	X					
Illegal waste deposition	X					
Illegal motor vehicle traffic	X			X		
Damage by game population		X	X	X	X	
Sport activities (mountaineering, rock climbing)		X				
Invasive species			X	X		
Routine forest management			X	X		X
Hunting			X	X		X
Prey species shortage						X
Electrocution						X
Poisoning (by rodent exterminators)						X
Illegal animal trade						X

Concrete conservation actions

C.1: Machinery procurement for other conservation actions

- *High pressure, vaporizer, mobile fire extinguisher device (2 pieces)*
 - to stop fire damages in grasslands and nearby forests
- *Valtra T 161 Classic tractor and AHWI FM 500-2300 mulcher*
 - to clear off shrub species
- *New Holland bulldozer*
 - to recultivate illegal waste dumps, abandoned roads, quarries and military facilities on the site, service road reconstruction, creation of fire brake zones

C.2: Restoration of degraded Subpannonic steppe-type grassland through removing scrub thicket



- Scrub thickets of 30 – 100% cover
- Clearing off the scrub tickets from about 540 hectares by using the new machinery (Valtra tractor and a mulching machine)
- Eliminating scrub thickets from about 60 hectares with manual devices
- Impact of the action will be sustained on the long term through herding and grazing in the area

Restoration of 600 ha degraded Pannonic steppe by the elimination of shrubs.

C.3: Stimulation of population growth and nesting of Saker Falcon (*Falco cherrug*)



- Placing 5 artificial nests to support the nesting of *Falco cherrug*.
- Repatriating 600 ground squirrels (as food source) to the project area from a nearby large/oversized population to grassland habitats in the project area on which intensive grazing can be ensured.

C.4: Recultivation of illegal waste dumps, abandoned roads, quarries and military facilities on the site (1)



- Recultivation of 35 illegal waste dumps, mining pits, abandoned military objects in the project area
- Transportation of altogether 6.422 tons of waste from the project area

C.4: Recultivation of illegal waste dumps, abandoned roads, quarries and military facilities on the site (2)



Abandoned bunkers impose a threat of injury, which can in turn be reduced by closing off their entrances, with the exception of small openings to become a **potential dwelling place for bats** (*Myotis bechsteini*, *Barbastella barbastellus*, *Myotis myotis*, *Rhinolophus hipposideros* etc).

- The demolition of abandoned facilities and transportation of debris from the demolition sites **reduce the risk of accidents** and also **promote reconstruction of grassland habitats**.

C.5: Development of fire brake zones between military training field and priority habitats



- Fires caused by infantry and airborne military activities occur several times a year (mostly in the beginning of fall). Military personnel are responsible for extinguishing these fires however this task is often hard to fulfill – e.g. in case of strong wind.
- As a consequence, a significant portion of the forest cover might disappear every year which imposes damage on the ecosystem.
- Fire break zones were created by eliminating the plant species from the designated areas. After all trees and bushes were removed, unexploded ordnance was collected and removed from the area.

The total length of the fire break zones is 6km with an average width of 10 m.

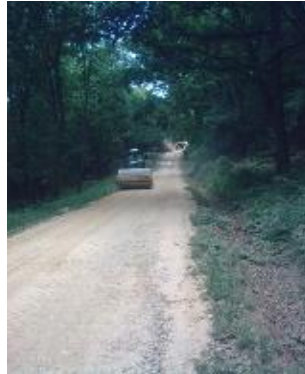
C.6: Construction of water catchment pool for fire protection



- water source for fire protection near the military shooting range
- chosen site's suitability: lack of another adequate water source in the near of areas characterized by a high fire hazard
- new free surface water-body favorable for the flora and for amphibious and reptilian species

Creation of a water catchment pool with a capacity of storing 9.300 m³ water.

C.7: Reconstruction of road network for fire protection purpose



- The reconstructed road network ensures the rapid enclosure of fires by fire fighting equipments.
- It also serves as fire break zones and it can stop the spontaneous creation and use of other tracks across the grassy areas

The length of the reconstructed service road network is 34,5 km.

C.8: Rehabilitation of Sub-pannonic steppe grasslands and Pannonic woods with *Quercus pubescens* habitats through the suppression of invasive arboreal species (Tree of Heaven (*Ailanthus altissima*), Russian olive (*Eleagnus angustifolia*))



C.9: Transformation of planted *Pinus nigra* forest cover into Pannonic woods with *Quercus pubescens* habitat on 35.5 hectares



- Some homogenous non-indigenous (highly flammable) *Pinus nigra* forests are situated in the shooting range.
- Transformation into a mixed forest of endemic tree species, planting of *Quercus pubescens* acorns accelerated the spontaneous ground gathering of endemic accessory species.
- ***Pinus nigra* closure was decreased by 70 %. In steep morphology areas erosion was prevented by terrace landscaping. *Quercus pubescens* acorns were planted on 35,5 hectares.**
- Seedlings were protected from wild game with fences.

C.10: Preservation and rehabilitation of Pannonic woods with *Quercus pubescens* and Medio-European calcareous scree of hill and montane levels habitat and *Klasea (Serratula) lycopifolia* species



- The negative effects of an oversized game population are apparent in several habitats that characterize the project area. Game population is dominated by mouflons; in smaller quantities, wild boar and deer are present.
- **A total of 60 hectares was surrounded by fencing** to protect target habitats from the negative effects of oversized mouflon population which was thinned prior by intensive hunting.

Preparatory actions

A.1: Making preparatory inventories of priority Natura 2000 species and habitats of the project area

A status survey and inventory of the whole project area

A.2: Drafting of Natura 2000 site management plan for the project site

A detailed, site-specific collaborative plan providing guidelines to land management issues with environmental impact.

A.3: Technical investigations and planning

Technical plans as precursors to conservation actions:

Landscape planning for the recultivation of illegal quarries and mining pits (Action C.4)

Technical surveillance of abandoned military facilities (Action C.4)

Technical planning of emergency road construction (Action C.7)

Field surveillance necessary for fence building (Action C.11)

Public awareness and dissemination of results

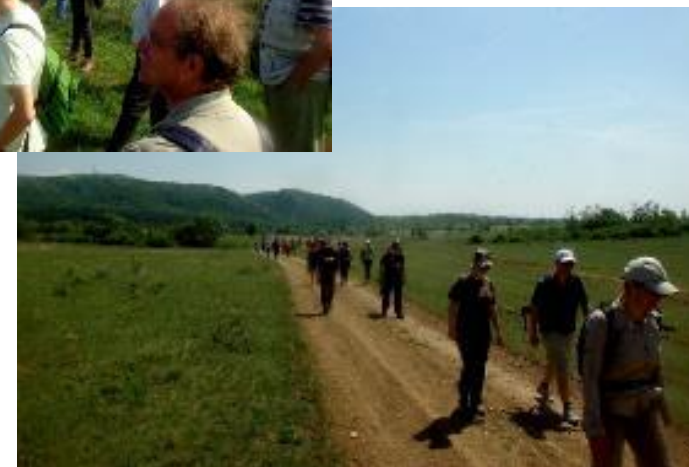
- *D.1: Project website development and maintenance*
- *D.2: Installation of gates, informational and notice boards*



- *D.3: Development of an educational trail (with 13 stops)*



- *D.4: Publishing layman's report*
- *D.5: Media work*
- *D.6: Publishing of informational and educational material*
- *D.7: Public information meetings*
- *D.8: Guided excursions for the public (4 guided tours with almost 400 participants)*



- *D.9: Internal training of military personnel on environmental practices* (Three trainings for the military personnel involving 109 persons, further 2 occasions for Dutch Army)
- *D.10: Exchange of best practice with other LIFE+ military initiatives*
- *D.11: Post project communication plan*
- *D.12: Exchange of best practice experience through practical collaboration on concrete dissemination actions*



Administrative Data of the Project

Total project budget: **2.238.642 EUR**

EU contribution (74,98% of eligible costs): 1.591.442 EUR

Ministry of Rural Development (co-financing): 55.000 EUR

Own contribution of Beneficiaries: 592.200 EUR

Project Implementation Period

Project start date: 2nd February 2009

Project end date: 31st July 2014

Děkuji za pozornost!
Thank you for your attention!

Military Life for Nature, Brno, September 2-3, 2021