

Winner case study of the CEEweb Award  
in the *Green Infrastructure and restoration, and their tangible benefits* category

# Species conservation through strengthening connections between protected areas

Lithuanian Fund for Nature

## Brief Description of the case

LIFE+ Nature project "Development of a Pilot Ecological Network through Nature Frame areas in South Lithuania" is an innovative project focusing on species conservation through strengthening connections between protected areas. The target species of the project are amphibians and reptiles, relatively immobile species of animals, which are endangered by habitat destruction and



fragmentation. The project has created a functional ecological network, which consists of core areas, buffer zones and ecological corridors designed for European pond turtle (*Emys orbicularis*) and European tree-frog (*Hyla arborea*) as umbrella species and a wide range of rare bird, amphibian, invertebrate and plant species. At the same time it has restored some features of the traditional landscape, adjusted it to nowadays needs and increased its value for the local communities. It is the first functional ecological network, designed as spatial system and securing the needs of the target species in Lithuania, therefore it is important not only as a tool for the species conservation, but also from the methodological aspect.

## Detailed Description

**Location:** Districts of Lazdijai and Varėna

**Duration:** 09/30/2010 - 09/30/2014

**Involved organizations (both business and green NGOs):**

Dzukija National Park	Protected area administration	Lithuania
Veisiejai Regional Park	Protected area administration	Lithuania
Meteliai Regional Park	Protected area administration	Lithuania
Lithuanian zoological garden	other	Lithuania
Ministry of Environment	Authority	Lithuania
Amphi Consult	Business	Denmark

**Activities carried out in the framework of the cooperation including concrete tools used:**

Aquatic and terrestrial habitat restoration implemented in the core areas, buffer zones and ecological corridors of the network; tree-frogs and pond turtles reared and released; methodology for establishment of ecological network prepared; action plans for the pond turtles and tree-frogs prepared; representatives from the local authorities and directions of protected areas trained; children taught about the needs of the target species and ecological network; educational material for children prepared; the landowners explained about uniqueness of the species, which inhabit their land, and its needs during individual meetings; excursions, photo competitions and exhibitions, the most beautiful amphibian voice competitions, turtle days and other activities for the public at large organised.

**Results:**

Short-term: Populations of the most threatened species increased their numbers by 1/5. Connectivity between sub-populations enhanced restoring habitats and creating new sub-populations. Cattle ponds and sandy slopes restored as a part of the traditional landscape. An example of robust meat cattle farm created, which maintains the habitats by extensive grazing. Local schools, landowners and farmers involved in conservation of reptiles and amphibians. The public at large was informed that turtle not only lives in Lithuania, is a native species here, but also is especial among Lithuanian fauna as a species, which has formed in very ancient times during the evolution and especial as a sub-species, which has unique adaptations to survive on the northern edge of the species distribution.

Long-term: Populations of the most threatened species reinforced. Functional ecological network for the target species created. An example, that species should be protected not only in isolated protected areas, but in the landscape, showed. Extensive farming system adapted to nowadays situation. Knowledge about singularity of the southern Lithuanian nature increased among schoolchildren, landowners and the public at large in Lithuania. The ecological, economical and existence values of the southern Lithuanian landscape increased.

**Benefits and motivation of partners (businesses, green NGOs):**

- 216 aquatic habitats for the pond turtles and rare amphibians restored;
- water level raised in 26 wetlands by building dams;
- 40 egg laying sites for the pond turtles and sand lizards created;
- 86 turtle egg clutches protected from predators in situ;
- 128 young turtles, reared out of the eggs, which were laid in unsafe places (such as gravel roads), and released to the restored habitats;
- 2799 young tree-frogs reared and released to the restored habitats;
- 5 local schools taught about the ecology of the target species and the ecological network;
- 156 groups of children taught about the turtles in Lithuania;
- 10 excursions for the local communities to the habitats of the rare species organised;
- A number of press releases and different events organised.

### **Situation before the project**

Loss of nature preserving agricultural activities left Southern Lithuania's landscape with a low water body density and a rapidly ongoing succession on abandoned agricultural areas. Loss of open, extensively used habitats threatens rare and protected amphibian and reptile species, which need small stagnant water bodies, meadows and sandy slopes. Existing network of protected areas is not sufficient to come up to its tasks of both safeguarding the threatened target species and enabling biological communication between the core areas of the nature frame. The nature frame (integral network of natural ecological compensation areas) set in the general territorial plan of Lithuania practically does not guarantee optimal protection of the target species.

### **More information and attachments:**

- <http://www.glis.lt/ekotinklas/index.php/en>
- [Investigated-area.jpg](#)
- [juvenile-of-pond-turtle.-T.Kizas.jpg](#)