Project specie fact sheet

The natterjack toad (*Bufo calamita*)

The natterjack toad is an approximately 8 cm long sturdy toad with a bright yellow stripe running down its back. It gets around by climbing or running due to its short feet, which make it resemble more a mouse than a toad. The animal is active in twilight and darkness and is known more by its sounds - the rattling, continuous 'krrr-krrr' like sound of a moped or song of the nightjar - than appearance.
The natterjack toad is a European endemic species having the smallest bio-geographical range of the three *Bufo* species (*B. bufo, B. calamita, and B. viridis)* found in Europe. During the twentieth century there were substantial losses of natterjack populations in the northern part of its distribution range: Ireland, Britain, northern France, Belgium, Sweden, Denmark, Latvia and Estonia. Therefore natterjack toad belongs to the most threatened amphibians in Europe listed in the Annex IV of the EU Habitats Directive.
Throughout its distribution range the natterjack toad is adapted to continuously changing open environment, being associated with sun-exposed habitats, sandy soils and shallow ponds. Around the Baltic Sea the species used to occur mainly on managed coastal meadows and sand dunes. The Baltic coastal meadows are primary open habitats, which retain their low vegetation due to the impact of the sea and traditional low-intensity grazing and mowing. Coastal meadows provide open, sun exposed terrestrial habitats for the natterjack toad and a large number of ephemeral ponds with shallow gradually shelving margins and few predators or competitors for breeding. Shallow ponds secure rapidly rising water temperature, which is vital for tadpole development. These ponds also dry up by the end of the summer and therefore contain a significantly smaller amount of predators (fish, invertebrates) and competitors. However, due to large-scale adverse impacts of agricultural intensification, drainage and ceased management the Baltic coastal meadows are now amongst the most threatened habitats in Europe. The habitat reductions have also been followed by biotic impoverishment and the natterjack toad, which was a widespread and numerous species on managed coastal grasslands in the first half of the 20th century, has witnessed a steady decline in its numbers by now. Therefore habitat change is considered one of the main reasons for the decline and extinction of this toad species around Baltic Sea.
The natterjack toad is very demanding on its living conditions. If one of the habitat features (open sun-exposed feeding and migration ground, shallow breeding ponds, hiding and hibernation places) disappears, the entire habitat is rendered unsuitable for the toads. The disappearance of each separate habitat factor within the whole habitat complex leads to decreased viability within a population and ultimately to extinction.

As the numbers of the natterjack toad populations had declined catastrophically in many coastal meadows around Baltic Sea, it became obvious that without rapid initiation of activities for preserving the terrestrial and aquatic habitats, the species would face extinction in several sites. Active habitat protection has been initiated by the LIFE-Nature project "Rehabilitation of Baltic coastal lagoon habitat complex", with one of its aims being the rescuing of still-existing populations of the natterjack toad in project sites. Although limited management activities were continued on various coastal meadows, at the time the project was launched, it was not enough for the preservation of this toad species' living conditions. Thus grazing pressure will be increased in various project sites and in areas where the grazing had ceased it will be re-launched during the project. Also several breeding ponds will be restored and new ones created to improve the breeding conditions of the toad. In several project sites in Germany the natterjack toad will be reintroduced to the restored meadows and sand dune areas.

Riinu Rannap