

Communal grazing systems in flooded pastures of Croatia (Gajna - serving nature protection and community)

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Within Europe, natural habitats are continuing to deteriorate and their biodiversity is seriously threatened. Much of this is a result of development and agricultural intensification. The river Sava is the second largest tributary to Danube by its basin and the richest by its outflow (around 30 % of Danube water flow). It is still not heavily regulated but well known for the wealth of biological and landscape diversity. In the east of Croatia, rather densely populated and intensively cultivated agricultural area close to the Sava, there are places extremely valuable for nature and directly dependent on traditional land use (common pastures, flooded grasslands and alluvial floodplain lowland forests). The biggest and the most important, is the Lonjsko polje Nature Park. (On the World Heritage list and a Ramsar site.) According to the Register of Protected Natural Values of the Republic of Croatia, within the Republic of Croatia 461 nature sites are protected in different categories, of which 12 are under preventive protection (State Institute for Nature Protection 2010)



This paper is taking the example of Gajna, the area protected as significant landscape under the Croatian Nature Protection Law from 1989, grassland protected on the local (county) level and directly dependant on the activities and management of the local communities. In this area the community has had different forms of managing grazing in different social systems but it has always been some sort of communal system.

There are 1500 hectares of marshland east of Slavonski Brod, along the Sava River. The Dvorina swamp near Donja Bebrina (600 hectares) bears the status of an ornithological reserve, and little further down the river similar terrain called Gajna (380 hectares) a status of significant landscape. It is flooded grassland enriched by marsh flora and fauna and an important fish spawning and birds feeding and nesting place. As a landscape made by anthropogenic influence it is directly dependant on activities of local community for its preservation. The area is important for biodiversity due to the large wet grasslands, old oxbows and wetland vegetation as well as numerous alluvial depressions in which in spring and autumn floods water is retained. Dykes against the floods, responsible for creating such areas were built in three periods, in years 1722, 1880 and finally in 1953. In this fertile part of the country, all the land of poor quality at the beginning of century has been left for grazing cattle. Gajna was partly formed from the so-called authority rights. Every household had to allocate

part of their private land in order to have the right to freely graze the cattle on the communal grassland. By decision of the Parliament of the Socialist Republic of Croatia in 1953 all such areas have been turned into the state or state companies owned land. Gajna was also affected by this decision, given to the State forestry. Since it is alluvial the forestry never conducted the usual management measures and the local population stayed continuously as users of the area and grazed their cattle. After 1990 and the different social system took place, the land was formally listed as property of the State of Croatia. Unfortunately, due to the ambiguities in the current law and the overlapping of the jurisdiction the Croatian Waters, local Municipality of Oprisavci, Croatian Forest Company and the County's Public Institution for Protected Nature Values all have certain management rights over the area and the local population is accordingly unable to claim subsidies for their traditional grazing activities. One of the positive steps forward are the future participatory management models according to the changes in Croatian law and the introduction of so called *Pasturing communities*. (Amendments on Law on Agricultural Land, 2011).



Significant landscape Gajna

Značajni krajobraz Gajna

Gajna is a part of CRO NEN – ecological network in Croatia and a candidate as 'Natura 2000' site as a Special Area of Conservation (SACs) and 'Special Protection Areas' (SPAs). This landscape is also a part Ark and Rescue farm network–within the pan-European project ELBARN. The ELBARN Network is designed to spread throughout Europe to share knowledge and encourage collaboration between organisations and institutes wishing to conserve European animal genetic resources.

A local ecological NGO (Ecological Society of Brod – BED) is actively taking care of the Gajna area over the last two decades by engaging and stimulating the local community to stick to the traditional grazing, ensuring a favourable water regime, destroying the invasive species and preserving the biodiversity throughout series of projects. The traditional free-range grazing on the communal land, pivotal for the preservation of this particular landscape and its rich biodiversity is now in danger of dying out (on Gajna, there are only about 100 cows, what used to be a number of 600 only decade ago). Through BED's effort Gajna became something of an „Arc“ for reintroduced native Croatian breeds (Slavonia-Srijem Podolian Cattle, Croatian Posavina Horse, Black Slavonian Pig, Tsigai Sheep and Croatian Shepherd Dog). The choice of indigenous breeds as keepers of pastures proved to be ideal because herds show exceptional durability in all weather conditions, particularly extreme ones (dry summers, floods). The reintroduction of indigenous cattle was pivotal in fight against the aggressive dispersal of invasive species (in particular *Amorfa fruticosa*). The specie has occupied large areas in the floodplains along the Sava and has led to a significant decrease of the surface of pastures and meadows. Through the previous projects on the protected landscape Gajna conducted by an NGO BED and its partners it has been proven on the large scale that the combination of cattle grazing and treading is the only way to permanently keep invasive species under control and enable original flora to regenerate. Apart from the nature protection activities BED has also founded a local eco-cooperative, providing certain funds and incentives for the population as long as they keep their cattle in a traditional manner on Gajna.



Podolians grazing on amorpha

Beside its conservation role, Gajna slowly becomes a sort of a *thematic park* communicating social memories and the cultural identity and its heritage to the surrounding community. As stated in the Croatian State Institute for Nature Protection (DZZP) report from 2008 *“demonstrated way of management of protected landscape Gajna is an excellent example of combination of breeding and preservation of indigenous breeds with restoration and preservation of endangered landscapes which results in protection and improvement of biological and landscape diversity.”* Although being a positive example of the sustainable development and proactive conservation case, the survival of Gajna is still under question. The most important problems are inefficient institutional support, sporadic funding, legal obstacles and ambiguities, population decrease in the area, high costs in infrastructural needs due to floods, finding balance between sustainable activities and nature protection, overlapping of jurisdiction (water and forest companies, municipalities, nature protection bodies, direct users) etc.

