

Nature's call for herbivory

Challenges for restoring nature by autochthonous breeds

Authors: R. Meissner^{1,2}, B. Beekers¹, F. Zanderink¹, L. Bencina³

Institution:

1. ARK Nature, Postbus 21, 6997 ZG Hoog Keppel, The Netherlands (info@ark.eu)
2. Herds & Homelands, Dalenk 6-8, 7371 DE Loenen, The Netherlands (renee.meissner@kpnmail.nl)
3. Public Institution Kopački Rit Nature Park, Titov dvorac 1, 31328 Lug, Croatia (strucna.sluzba@kopacki-rit.hr)

The genius of the place

Each landscape has its own, unique appearance. Biologists talk about its biodiversity and ecology. Philosophers about its beauty, mightiness or wildness. Citizens feel the relaxing atmosphere of its natural balance. This altogether is what we call the genius of the place, and each landscape has its own very unique genius. The genius of the place includes all: plants, trees, animals, soil, waters, geology. This is what we talk about: how today's rare breeds of horses and cattle can again become part of these sensitive but impressive landscapes.

Rare genes belong to the genius of the place. Croatia has many of them!



The Slavonian Podolian bovine; a rare breed and highly valuable for nature restoration (photos: Public Institution Kopački rit Nature Park)

Herbivory

Historically there has been an interaction between plants and animals since the beginning of evolution. In this paper we concentrate on the large herbivores with the popular name of grazers.

No herbivore can live without edible plants. The more different species, the more different niches will be filled up, which together leads to a high(er) biodiversity.

In the Neolithic Period (9500 BC) until the Middle Ages (500 - 1500 AD) a wide range of large herbivores lived in Europe - including wild horses and wild bovines - which were spread widely and had an irreplaceable influence on the landscape and its flora & fauna.

Rare breeds, rare genes: chances to preserve rare breeds of cattle and horses

Since man domesticated bovines and horses after the agricultural revolution, the original wild species became extinct in the last centuries. Humans developed a range of breeds of horses and bovines. Bovines thus became cattle.

From some 5000 years ago until the middle of the former century, cattle and horses were kept as domesticated breeds for rural husbandry. People still lived together and in harmony with their surrounding nature. Although nature was no longer untouched but adapted to extensive farming. Cattle and horses grazed the forests and grasslands like their wild ancestors. Of course there were

differences. In pastoral grazing productivity was important for the farmers. In comparison with natural grazing, the sex ratio changed and the groups of animals existed mainly of fertile female animals. To protect the precious animals they were mostly kept in sheds or given extra feed in wintertime. This was not the way their wild ancestors lived. BUT these domesticated breeds were still very robust and were adapted to their own specific environment.

Since the last decades agriculture took a new course. The ever growing demand for higher productivity neglected the old breeds with their valuable characteristics for the local environment, stored in their genes. They are highly needed in nowadays nature!

New chances to restore nature by natural grazing

We live in an interesting time. Social transformations are happening all over the World. One of the biggest is the human migration from the countryside to the cities. Together with changes in agriculture it results in the abandonment of millions of hectares with an enormous impact on the landscape and biodiversity. This brings an opportunity for Natura 2000: a European wide network to preserve, restore and connect nature areas together and to bring a halt to the loss of biodiversity. Next to this, strong nature can also be a positive help to encounter climate change and the urban population of today has a need to recreate and relax in nature. Even health and welfare of modern people are better assured by regular nature experience.

We hope to show you a positive solution in the way of natural grazing for mentioned difficulties or changes. In the Netherlands we have experienced it for 25 years by now, and with very good results. We already exported our 'recipe' to Latvia, France, England, Germany and Bulgaria.

The recipe of natural grazing

Grazing can be seen as a motor to revive the ecosystem processes. Natural grazing is different from pastoral grazing and as a consequence has other results. It is about herds of wild living bovines and horses in their original habitat - analogue to their wild ancestors which became extinct.

Let them live year round in the field, in social groups of all ages and both sexes. Human intervention is on a respectful side place, to assure their health, well being and other important conditions.

The animals itself are the creators of a mosaic landscape rich on species. Let nature profit from such nature management. No doubt that no breeds can do this better than the old autochthonous breeds. Nature restoration and protection of old breeds are only two important results of natural grazing. But there is more. It makes beautiful attractive, accessible nature for people.

Invite people to enjoy this nature and let them experience the beauty and wildness of natural herds of wild grazers, like people enjoy this in Africa on safaris.

And last but not least, it is our longtime experience that natural grazing stimulates local economics.

Kopački Rit Nature Park, Croatia

At the end of the 19th century developments in agriculture caused the disappearing of pasturing of bovines and horses in Kopački Rit. Pastoral grazing is no longer practiced with an immense impact on the formerly pastoral habitats. The abandoned grasslands became ideal places for colonisation by invasive alien plant species and as a result, bird species which depend on (wet) grasslands like the Corn Crake (*Crex crex*), Glossy Ibis (*Plegadis falcinellus*), the Lesser Spotted Eagle (*Aquila pomarina*) and the Common Hoopoe (*Upupa epops*) are not longer breeding in the Kopački Rit area.

To restore natural habitats, the Kopački Rit Nature Park and ARK Nature started in 2008 a pilot project on 26 hectares (financed by the Dutch ministry of Agriculture, Nature and Food Quality).

The goals of the pilot project are:

- restoration of natural habitats (grasslands and woodlands)
- decrease of exotic plant species like *Amorpha fruticosa* and *Solidago gigantea*
- conservation of an endangered bovine species the Slavonian Podolian bovine and Posavina horses
- increase of the tourist offer (including an educational trail)

The first six Slavonian Podolian bovines have been introduced in October 2009 (followed by three in July 2010). What we first observed after one year is that natural grazing maintained the surface of vegetation low. The preferred grazing places are already less covered with invasive plants in some places, which give more space for native species. An educational trail has been made and a group of experts monitored the site on animal and plant species.



The typical mosaic grazed landscape is already visible again (photo: ARK Nature)

The rare genes of the old breed enriched the genius of this place with respect and thanks to the Podolian breed!

Wishes for the future

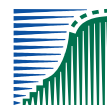
Our experience in Kopački Rit makes us wishful to start with other nature conservation and/or restoration areas in Croatia. If you are interested, please contact us. ARK Nature is a Dutch foundation that works both national and international on restoration of nature in a wide sense. Herds and Homelands is a consultancy company for natural grazing.

For more information about our work and grazing project in Kopački Rit please visit:

www.ark.eu/ark-en and www.kopacki-rit.com



Herds & Homelands



**agriculture, nature
and food quality**