

Fighting invasive plant species in flooded grasslands

Final report Nov 15th 2010- May 30th 2011

**Sub-target 1 - Removal of invasive species Results - 5000 m2 cleared
of invasive species**

a) Preparation activities – mechanical removing – in **November 2010 first removal on
the fields A1 and C1, B has been left intact. A2 and C2 were removed on April 26th**
in the beginning of the vegetation season – Picture 1



b) Fencing – organization of material, equipment and food for volunteers – the material (wooden poles) have been prepared but due to the weather conditions and the fact the herd is not yet ready to move on this part of the pasture the installation fencing has been postponed and was finally done in April – Picture 2

c) Putting the electrical installation (connected to existent solar powered grid) – the whole existent installation has to be renovated after winter and consecutive floods and as soon as this happens the new fence on the test fields will be connected to it. Done in April –Picture 2

d) Maintenance of the fence (mowing, reparation) – after the installation. Before the cows were led in the area, the higher poles marking the test fields had to be replaced by the marks in the ground.



Sub-target 2 - Monitoring and reporting activities Results-Assessment
of the influence of various invasive species removal techniques on the biodiversity.

a) Assessment of current condition -. In the cooperation with the County Institution for Nature Protection the monitoring system has been developed and the so called zero condition has been established. Within every field (A1, A2, B, C1, C2) we have marked three additional smaller plots (1mx1m). The plots were also marked with GPS system. The density of sticks and sprouts was determined by **counting the sticks (last years) on the fields A2, C2 and B and sprouts in the plots A1 and C1.**

Monitoring procedures (counting *Amorpha*) has been **conducted every three weeks** (25.01., 15.02., 08.03., 29.03., and 19.04.) The final assesment has been done at the end of May. We have developed the form (*sent in Midterm*) and the corresponding data base for the results. The herd was brought here in beggining of May, and the test field pointers were changed and put on a ground level on fields B and C where the cattle grazed.

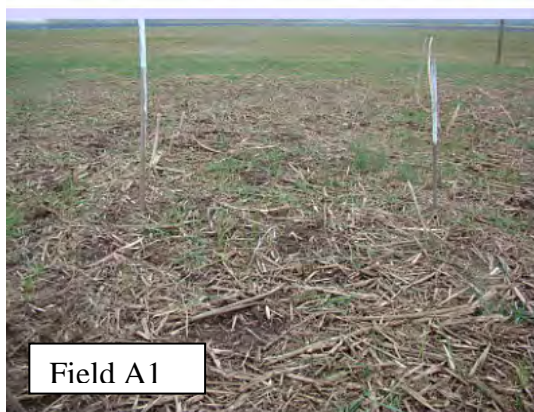
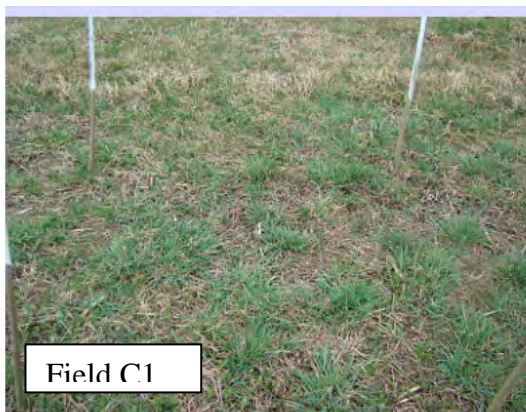


Podolians grazing on amorpha

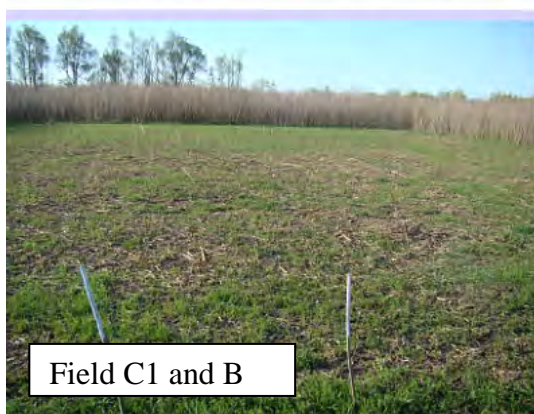
b) Monthly reports – After the midterm report there has been another 3 scheduled monitoring visit plus the final one. 08.03., 29.03., and 19.04.



Monitoring 08.03.2011.

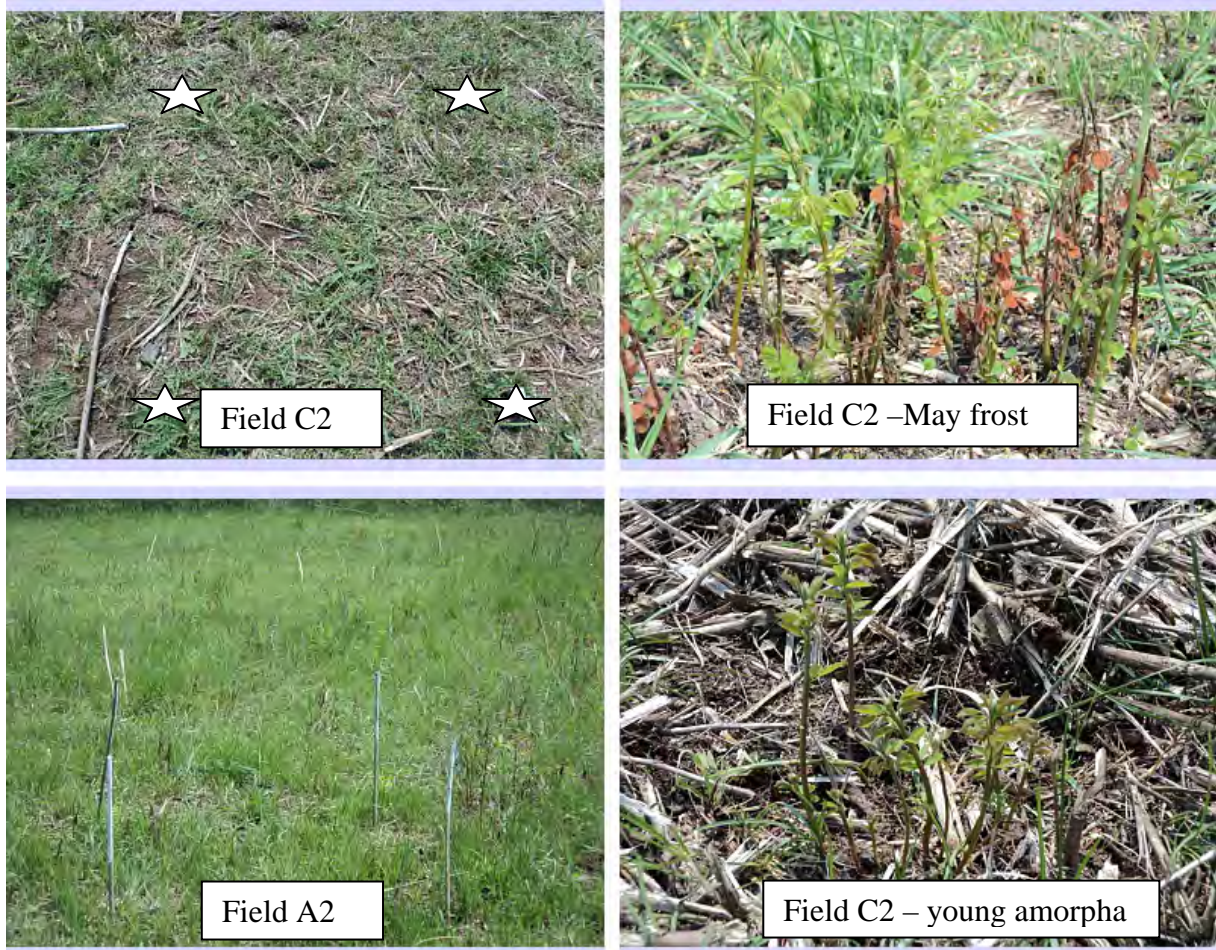


Monitoring 28.03.2011.



Monitoring 09.04.2011.

c) Final assessment of the biodiversity – The results of the monitoring visits were gathered and analyzed. There were weather factors influencing the results in a non typical way. Winter flood was longer than usual and there was frost in May which affected the young plants sprouting on certain areas.



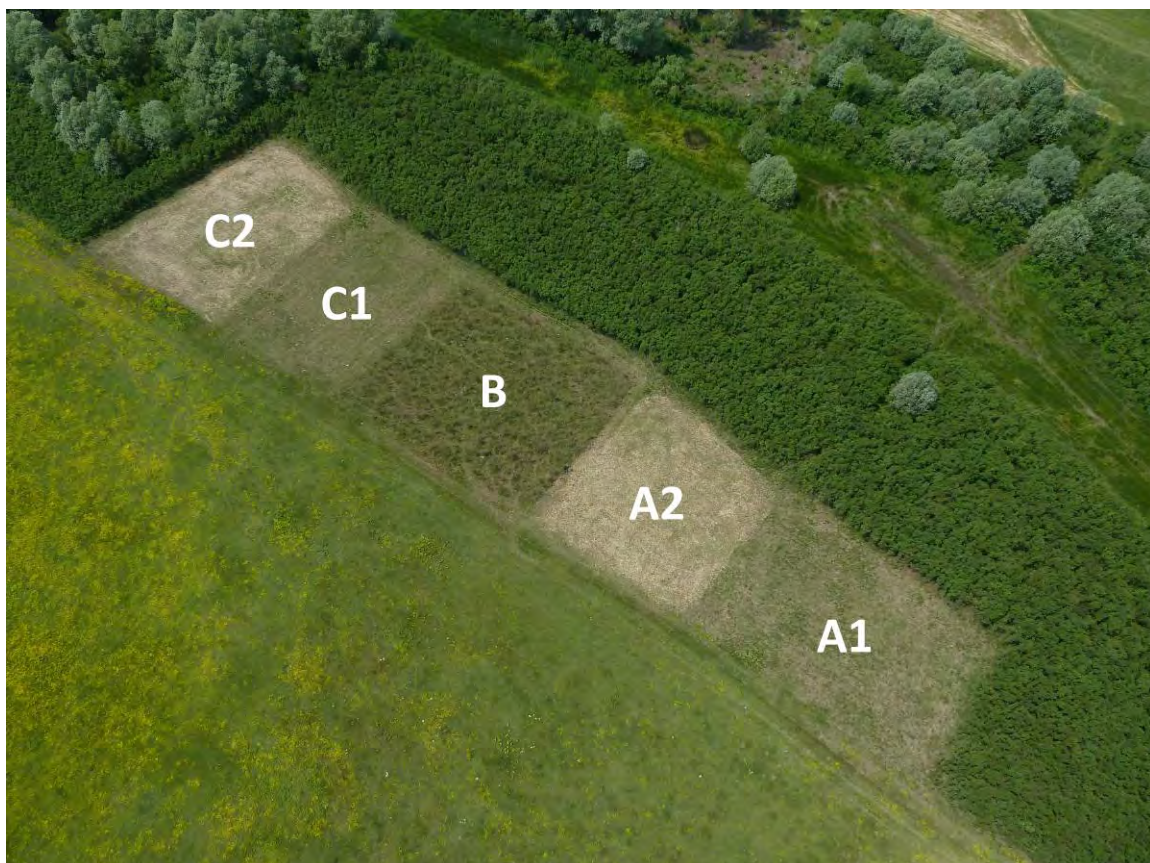
Final monitoring 22.05.2011.

It is unfortunate that the time of the year (winter) was the least favourable for the biodiversity monitoring. The real difference between fields just being mechanically removed and the ones with the cattle will only be visible after the whole year monitoring. But, the difference in the field B which was left intact from the machines and then the cattle was released in it in comparison to the surrounding amorpha is more the visible.

It can be concluded that the mechanical removal alone is not as efficient as the combination of grazing and mechanical removal since the cattle destroy the sprouts by grazing, and the older plants by stumping. It is also visible that the cows can do serious damage to the already developed bushes of amorpha and will enter and feast on it, even if amorpha is considerably higher than the cattle and thick. Comparison on the fact which is the more efficient time of the year for the mechanical removal will be possible in the fall. (Fields A1 and C1 were operated on in November and fields A2 and C2 in April)



A1 – fall removal, no grazing **A2 – spring removal, no grazing**
B aka B1 – no removal, with grazing (no removal without grazing can be visible on picture above just outside the fence)
C1 – fall removal, grazing **C2 – spring removal, grazing**



Sub-target 3 -Raising of ecological awareness– Introducing the public with the invasive species **Results** - A bilingual leaflet on invasive species in Sava region

a) **Communication with all providers of photos and information** –There has been direct e-mail communication on the matter between Croatia and Vojvodina Province Nature Protection Institutes in preparatory phase. Project coordinator from Croatia has been on a meeting in Zagreb in January in which she received the formal support for the project, permission to use materials given by the Croatian Institute for Nature Protection and offered expert guidance. County Institution for Nature Protection of Brod Posavina County has been involved in the implementation of the monitoring system, monitoring forms and data base creation. Consequently, in a process of leaflet creation several meetings were conducted between project coordinator and the aforementioned bodies with the constant e-mail communication with partners in Serbia. The text has been created in a joint process Iris Beneš/Alen Kiš and it has been proofed by the Croatian State Institute for Nature Protection.

b) Design c) Printing and d) Dissemination of the leaflets

The design has been done by the Project coordinator and its NGO, the leaflet has been sent by e-mail to 90 addresses - 43 elementary and high schools in Brod-Posavina County and to 47 ecological NGO's in Croatia. The same leaflet with minor additions was translated to Serbian (will be printed separately by Serbian partners) and English. (Lists and pdf version of leaflet in Croatian and English language attached, Croatian version was printed in 1000 pieces)



Established cross border cooperation in protection against invasive species through joint meetings - exchange of best practice examples, problems in removal techniques, contribution to the joint leaflet

A group of four people, three adults and one child, are standing in the snow in front of the Ethno House. A large informational sign is visible on the left, and a traditional wooden house is in the background. The sign contains text in both Serbian and English, describing the Ethno House as a reconstructed traditional Serbian house from the 18th century, located in the Ethnographic Park. The English text reads: "The Ethno House is situated next to the Orthodox Church of Saint Luke and is considered the core of the Ethnographic Park. The house of the foreyard is representative of a traditional, the entire rural household with foreman, barn, stables, granary, house and well. The foreyard structure is a full architectural, decorative and functional representation of the traditional. Numerous, in existing structures are good examples of local folk architecture. The Ethno House, Ethnographic Park with the Ethno House, Church and one other structure of folk architecture located in St. Luke's Church is a prominent cultural location." The Serbian text above it describes the house as a reconstructed traditional Serbian house from the 18th century, located in the Ethnographic Park. The group consists of a man in a dark jacket and red scarf, a woman in a dark coat, a young girl in a yellow coat, and another man in a dark jacket. They are standing in front of a black wooden fence and a traditional wooden house with a gabled roof. The ground is covered in snow, and there are bare trees in the background.

NatuRegio Trainees from Croatia and Serbia on -10 C in Obedska bara 😊