

Detailed Final Report

In connection with identification of the meadows in the region where corncrake nests territory of 79 settlements was visited. Auditory census was performed by T. Todorov, R. Dimova, J. Stoianov and N. Dimitrov. During the census 519 nesting males were registered.

After the extrapolation based on the average number of singing males per *decare* of the visited habitats correlated to the rest of the suitable nesting places I made the conclusion that the real number (male and female altogether) is 1100-1500.

The thing that impressed me most was that even in the beginning of May I registered nesting corncrake males at 1400 – 1500m altitude. Up to now was accepted that in the beginning of the nesting period during the first hatching corncrakes' nest at lower lands and at the second hatching they move to higher meadows (connected with warmer and drier weather).

I noticed also that there is irregular distribution of nesting couples in habitats appearing to be completely alike. Especially impressive was the situation in the mowing meadows around the town of Chiprovtsi where not a single singing male was registered. The meadows cover corncrakes' biological needs, the agricultural practice in the region is not different from that in other places, that's why despite my meetings with some of the most evident corncrake specialists (V. Delov) I am not able to give logical explanation.

In my research I found out that corncrakes start arriving at the beginning of April and that the autumn migration is in September. There are some late migrants- the last one was registered on November 27th.

Deforestation in the past has led to enlargement of the areas inhabited by corncrakes. The lack of cultivation of agricultural lands improves the conservational status of the species. Despite that the tendencies are negative. Because of depopulation in these regions and low social status of the people living there, an enormous part of the meadows used for mowing are deserted. Stockbreeding has almost vanished and pastures are running wild. All that leads to replacement of the grass communities with bush ones, pioneering kinds of trees are noticed at some places. That makes the habitats unsuitable for corncrake reproduction. On the other hand, wealthy agrarians take on lease large areas and cultivate them mechanically, trying to produce maximum hay (in number).

The corncrake inhabits one of the most vulnerable to human activities area- the damp meadows. During hay-making a lot of nests are destroyed and little ones of the species are killed. A considerable number of adult birds die, too. One of the main reasons is the replacement of hand mowing with machines. In these large areas without grass the birds do not have the opportunity to hide from predators, especially when they change their feathers. That is why during the mechanical mowing one part of the meadows must not be cut and the mowing itself must start from the middle of the meadow to the periphery so the birds can escape and hide.

Using chemicals in agriculture is another problem. The corncrake is an insectivorous bird. Using insecticides leads to poisoning the birds and decrease in their food.

Hunting also has negative effect upon the species' number although in our country as in all the other European countries corncrake is protected. It is a victim of illiterate and inexperienced hunters. The older ones believe that the corncrake is a quail leader and the quails can't return during the spring migration, so they don't shoot at it.

According to the National strategy of protecting the biodiversity, pastures and damp areas are one of the most vulnerable and endangered habitats in our country. They are a priority for taking emergency measures in the next years. Both has been exposed to human activities and are very sensitive to change. On the other hand, there are numerous plant and animal species in it, which are endangered at different levels because of their vulnerability. Because these areas have been used by people for centuries a strict protection is not recommended. But right usage of pastures and damp areas is vital for long-term protection of the endangered species there.

The reason behind "Management of half natural habitats" as one of the agro ecological activities is the necessity of long-term usage practice which aims at protection of natural characteristics and ecosystems. In addition, it is supposed that the economic activities are continuing in the region. The activity tries to achieve an appropriate balance between environmental protection and agriculture.

"Half natural habitats" mean plant communities which have been a target of human interference or management but saved most of their natural species and part of their natural communities.

This pioneering program aims to protect and enhance biodiversity through offering payments to the farmers in the areas where the high value of land is kept or through continuity and re-establishment of traditional agricultural activities.

Two kinds of priority half natural habitats are determined:

- -Pastures and meadows (valuable for flora and fauna diversity)
- -Pastures in damp areas, situated in agricultural lands (valuable for migrating birds' reproduction)

During this activity it is very important not to use mineral fertilizers or other chemicals, to manage pasture density according to the optimum for the different kinds of half natural habitats, to restrict pasture and/or mowing for certain periods and to keep landscape characteristics for at least 5-year period. Following activities are supported in the priority half natural habitats:

- Pasture or mowing in distant areas and protection from self-forestation
- Creation of sanitary mowing to maintain distant pastures and meadows.
- Clearing and recovering the pastures through bushes and weeds removal. Introducing regulated pasture to avoid bare territories.
- Mowing to be performed after June 15th.
- Mowing to be performed from the middle to the periphery.
- Pasture in sand dunes to be forbidden.

- Stopping the usage of mineral fertilizers and pesticides in lakes and rivers

The traditional practice of mowing in Bulgarian lowlands includes mainly two mowings in spring/summer season. The first one is May 15-30th (depending on the site). The second one is in the second half of June. The requirement to mow after June 15th restricts the first mowing in May. The hay decrease in half because there is only one mowing. So the hay gained is only 50%.

The researched region is to be announced for Natural Park West Stara Planina. The procedure is soon to be accomplished. After that the park is going to be integrated with the existing Serbian park into Trans bordered one. The frontiers of the future sites of the European ecological network Natura 2000 are set. In the management plans of the protected areas will be included activities for protection of damp pastures and meadows and of the endangered species which inhabit them.

In the period 05-07.2005 and 05-07.2006 we carried out field work with students of biological classes and scouts. We had some presentations in front of students and adults in the towns of Belogradchik, Berkovitsa and the district town of Montana. During the training sessions and the presentations printed stickers, biology and corncrake law status leaflets and leaflet for development the agricultural activities aiming environmental protection were distributed.

In connection with the last leaflet I had the complete cooperation and understanding of the Ministry of agriculture and forests. I also gave some CDs with songs and sounds of 72 bird kinds to the students. Leaflets and stickers were given to most municipalities and to the Regional agency for environment and water protection. I had discussions with hunters, farmers and other people interested in the subject explaining the aims of the project. In the region of Belogradchik and Izvos I made up for the hay to the meadows owners to mow them only once in August. There was a radio announcement about the project activities in the local radio stations in Vidin and Montana covering the area.

In conclusion I can say that the future activities of environmental organizations include explaining the law status of the future protected territories, continuing research of biodiversity (rare and endangered species) and threats, offers and help in producing management plans of protected areas, explaining the advantages of alternative tourist forms (ecotourism) either for protecting the nature or for improving the economic status of the local people.