

# Human Bear Conflicts

## Results from awarded Experience and Exchange grants: After the trail of brown bear damages in the Ukrainian Carpathians

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*"As you can see, in these places human and bears can coexist without problems"* - this is what Dr. Maryna Shkvyrya, from the I.I. Schmalhausen Institute of Zoology in Kiev, told me last September 2013 during a field trip that we did together in the Ukrainian Carpathians thanks to the Experience & Exchange IBA grant program.

I have been working in a scientific project on brown bear damages to livestock and agriculture in Europe for the past two years. To perform this project I have built a European collaboration network with the aim of creating a European database on brown bear damages. One of the objectives of the project is to make a comparative study among the different European countries and regions in which the brown bear occurs. The data gathered come (in most cases) from the administrative files that are created when farmers claim damages, according to the compensation system procedures in each country. In the case of Ukraine there is no damage compensation system, therefore, the only existing data come from the field work done by our Ukrainian colleagues. Besides the huge effort they do, there seems to be a lack of precise information on bear damage occurrences in Ukraine. Therefore, I agreed with Maryna to travel to Uzhanski and Skolevski Beskydy National Nature Parks (NNP) in order to investigate the bear presence occurrence, and collect more data on bear damages through interviews to local people. During the interviews we asked the people to fill a questionnaire regarding different aspects of bear damages.

### The Journey: Activities and Interesting Results

Maryna guided me through a two weeks trip in Uzhanski and Skole Beskydy National Nature Parks. Uzhanski NNP is located at the border with Slovakia and Poland, inside the Ukrainian province of Transcarpathia. Skole Beskydy NNP is about 50 km east from Uzhanski and is located in the Lviv province. The estimated bear population in Uzhanski is 10-12 and 26 in Skole. In Ukraine there is an estimated bear population of 400. The census are carried out by protected areas administrations where bears occur, and are not performed by biologists, therefore these numbers might be overestimated.

We visited different forestry districts within both National Parks to interview local people, install camera traps and look for bear sign. In Uzhanski NNP no bear sign was found besides anecdotal information from local people. In Skole Beskydy NNP we were "luckier". We found many abandoned apple trees that show sign of ursine activity (broken branches, bear hair and claw marks). However, unfortunately the camera that we installed was stolen. The last day in the field a ranger from Skole Beskydy NNP, Mykola Svystun, drove us to two different apiaries located in highly forested areas and barely protected that were damaged few years ago by bears. He also showed us a picture of a bear taken by his camera trap as well as a quite sophisticated prevention method to protect apiaries: a low wire connected mechanically to 3 shotguns aiming at the ground. According to his words, in 6 years it was activated just once, but effectively.

Among the 54 questionnaires that we collected just 42 were valid to analyze and only in 5 of them damages were registered. According to the results, from 2008 to 2013 there is an annual mean of 2.5 damages to agriculture and livestock. Cattle, sheep, beehives and fruit trees are targeted. Most of the



From left to right: Maryna Shkvyrya, Mikola Svystun, Carlos Bautista and Yegor Yakolev.

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questionnaires were gathered in Uzhanski NNP. Previous information shows that in the same provinces the annual mean damages from 2008-2011 was 2.75.

Most of the local people interviewed did not know about recent damages, however many of them remember bear damages from 15 to 30 years ago. This seems to be explained by 2 separate facts: first, that in the 90's there was a strong decrease of the population due to illegal hunting (Khojetskyy 2013) and second, that until 1991 there was a communist regime and the livestock and agriculture exploitations were collective and thus much bigger and less guarded.

According to Turjanin (1974) from 1948 to 1958 in the Transcarpathia region (where Uzhanski NNP is located) 1100 livestock were killed by bears. Nowadays people guard their own livestock (which regularly is little) in small barns close to their houses, and beehives and crops rarely are far from home. In 2003 bears became a fully protected species by being included into the Red Book. It is interesting to note that almost 60% of the interviewees still believe that bear is a species that can be hunted and that only 28% know that there is no damage compensation system.

Besides the fact that the situation seems to be apparently peaceful in relation to human-bear conflicts and that there is a big effort by our Ukrainian colleagues in order to collect data on bear damages, the real situation still remains unclear. Moreover many local people believe in legends such as "chupacabra", which makes less credible the information extracted from the interviews. Nevertheless, this preliminary investigation on the patterns of bear damages in Ukraine has established the beginning of a future cooperation between researchers in Ukraine and Poland regarding the conservation of this transboundary bear population.

I encourage every biologist involved in the study of bears to apply for the Experience and Exchange IBA grant. Thanks again to the IBA and Maryna Shkvyrya for making this whole experience possible and special thanks to Igor Dikiy, Nelya Kowal and Yegor Yakovlev for helping throughout the entire journey.

## References:

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Mechanic artifact to prevent bear damages to apiaries, Skole Beskide NNP.

