

Final narrative report for 2012 on the project “Brown bear (*Ursus arctos*, Linnaeus 1758) conservation and research programme in a model area in Romania”

The present narrative report covers the evolution of the project’s activities throughout 2012. In this period, most of the project’s activities have been implemented as foreseen, with some exceptions. Please find below the detailed report for each of the activities.

Objective 1: Improving the social acceptance of the species:

Activity 1.1. Continuing and further consolidating our ongoing education program about bears:

In 2012, education activities about bears were carried out on 2 occasions within the Milvus Group’s own Forest School. Both events covered almost 1 full day each (in July 2012) – during this time, scholars have learned about bear biology and ecology, about how to recognize the signs of the bears’ presence, as well as about basic telemetry research. As an end to the activity, a recently discovered bear den was visited – only with the first group of children, since the 2nd Forest School camp took place in a new location, where we have no knowledge about bear dens. The first Forest School camp was attended by more than 30 Hungarian children, while the second camp had approximately 30 Romanian pupils.



Also in July 2012, the Hungarian section of the University of Agricultural and Veterinarian Sciences from Cluj Napoca has held a 1 week long camp for its approximately 40 Veterinarian students. The 11th of July was reserved for wildlife issues and the veterinarian scientist we work with in the present project has kept an extensive presentation on brown bear anesthesia. The first half of his presentation was about the current situation of the bears in Europe and about the threats and issues facing the species. The presentation was very well received by the attending students – of course, this was an “exotic” subject for them.

On the 29th of October 2012, a presentation was held in the city of Cluj Napoca, at the Babes-Bolyai University’s Biology and Ecology Department, as part of a series of presentations about nature conservation issues in Romania. The initiative came from the University itself, as an effort to provide information to the students that cannot be fitted into the regular curricula of the conventional classes. The presentation (the first in the series) was about bears in general (biology, ecology, threatening factors) and the present project. The 40 minute presentation was followed by a 2 hour-long open discussion. The

event (held in Hungarian) was surprisingly successful, with over a 100 students and teaching personnel attending, from the Biology Department, the Geography and Geology Department, as well as from the University of Agricultural and Veterinarian Sciences from Cluj Napoca.

Merre tart a medvék sorsa? Valóban ők számítanak az első számú ellenségnek? Kerekasztal beszélgetés a medvékről és a nemrégiben kialakult helyzetéről.

Terítéken a medvék

Természetvédelmi kerekasztal

BBTE Magyar Biológiai és Ökológiai Intézet

Előadó: Domokos Csaba - Milvus Csoport
Helyszín: Gerinctelen Állattan Előadóterem (SZN), Mikó-kert, Clinicilor 5-7.
Időpont: 2012. október 29. hétfő, 18 óra

Apáthy István Egyesület

BÖSZ

The poster and invitation for the presentation at the Babes-Bolyai University (prepared by the University itself ☺)



Moments from the presentation

Activity 1.2. Performing an information campaign in localities throughout the project site:

In 2012 we have not distributed our brochures about bears in the project's 2 target areas. Instead, we have tried to reach the locals through the mass-media, namely local and regional TV stations, newspapers and radio stations. These attempts took place in the 2nd half of 2012, following a very intense and (needless to say) negative national mediatization of a number of bear attacks and damages. For 2 months in a row (September - October), the supposedly overgrown Romanian bear population was the subject of almost every news broadcast on almost every national and regional TV station, with so-called experts who even further turned the public opinion against bears.

To try to at least somewhat balance the scales, we have tried to present “the other side of the coin” with a number of occasions – these are described below, at *Activity 1.3 – Supplying the media with materials about bears and about the project.*

Activity 1.3. Supplying the media with materials about bears and about the project: in 2012, the project had the following media coverage (we managed to acquire some copies after some of the articles – these are on the CD accompanying the present report):

- 27th of September 2012, an approximately 45 minute long live discussion on Stii TV, a regional TV station, in Hungarian
- 5th of October 2012, an approximately 28 minute long interview and discussion on Erdelyi FM (Transylvania FM), a regional radio station, in Hungarian
- 8th of October 2012, an approximately 1 minute long interview on DIGI 24 HD, a national TV channel, in Romanian
- 29th of October 2012, a 2 minute long interview published on a social media platform, accompanying the presentation on bears at the Babes Bolyai University, in Hungarian
- 5th of November 2012, an 8 and a 6 minute long interview on Kolozsvari Radio (Radio Cluj), a regional radio station broadcasting in Transylvania, in Hungarian
- 10th of December 2012, a 1 page long article in the Vasarhelyi Hirlap regional newspaper (with a mentioning also on the front page of the newspaper), in Hungarian (*please note the financers of the project listed at the end of the article*)
- 12th of December 2012, an extensive article about the project on a popular online news portal (szekelyhon.ro) - <http://szekelyhon.ro/aktualis/marosszek/a-medvek-eletmodjat-tanulmanyozzak> , in Hungarian (more or less the same article as the one published in the Vasarhelyi Hirlap newspaper – see previous point)
- 14th of December 2012, a 7 minute long interview on Marosvasarhelyi Radio (Radio Tirgu Mures), a regional radio station broadcasting in Transylvania, in Hungarian

Objective 2: Improving scientific knowledge about the species – conservation oriented research work:

Activity 2.1. Improving scientific knowledge about bear home ranges, movement and activity patterns, habitat use:

We have started actual trapping efforts at the end of July 2012 – preparatory feeding has been carried out at both traps and in both project areas since early July. Initially it seemed that capturing bears would be quite straight forward, since they were coming regularly to the traps. However, from the moment we have actually activated the traps (end of July), the bears basically avoided them. Following this, we have resumed baiting at both traps (with inactive traps). Both sites were checked almost on a daily basis from late July until the 22nd of November – without success. During our baiting efforts, we have experimented with every possible baiting material we could think of: meat (horse, sheep, pork and fish), corn, apple, plum, chocolate, granulated dog and cat food varieties, as well as honey-comb.

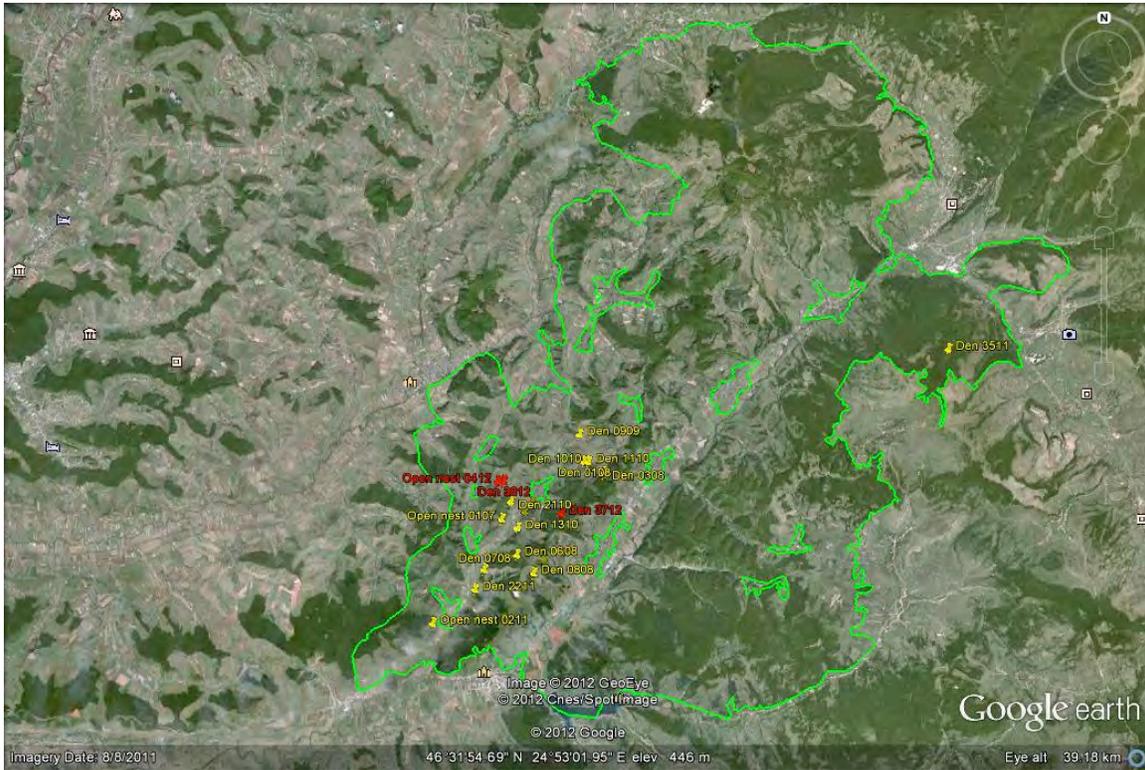
We can only speculate as to why we were unsuccessful in luring in the animals. In 2012, hard mast (oak and beech nut) and soft mast (mostly blueberry and blackberry) production, as well as human crop yield (oat, corn, apple, plum and pear) were exceptionally high in both target areas. In fact, human crop yield was supposedly at the highest level in the last decade. We suspect that because of the over abundance of food, the bears were not tempted by the bait placed in the traps.

This theory is seemingly also supported by the fact that even now (in January 2013), most of the bears are still active and have not entered winter sleep. Even now, with only moderately deep snow cover, there is plenty of food available to them and we have observed a considerable number of active animals of all sizes and sexes (even females with cubs of the year).

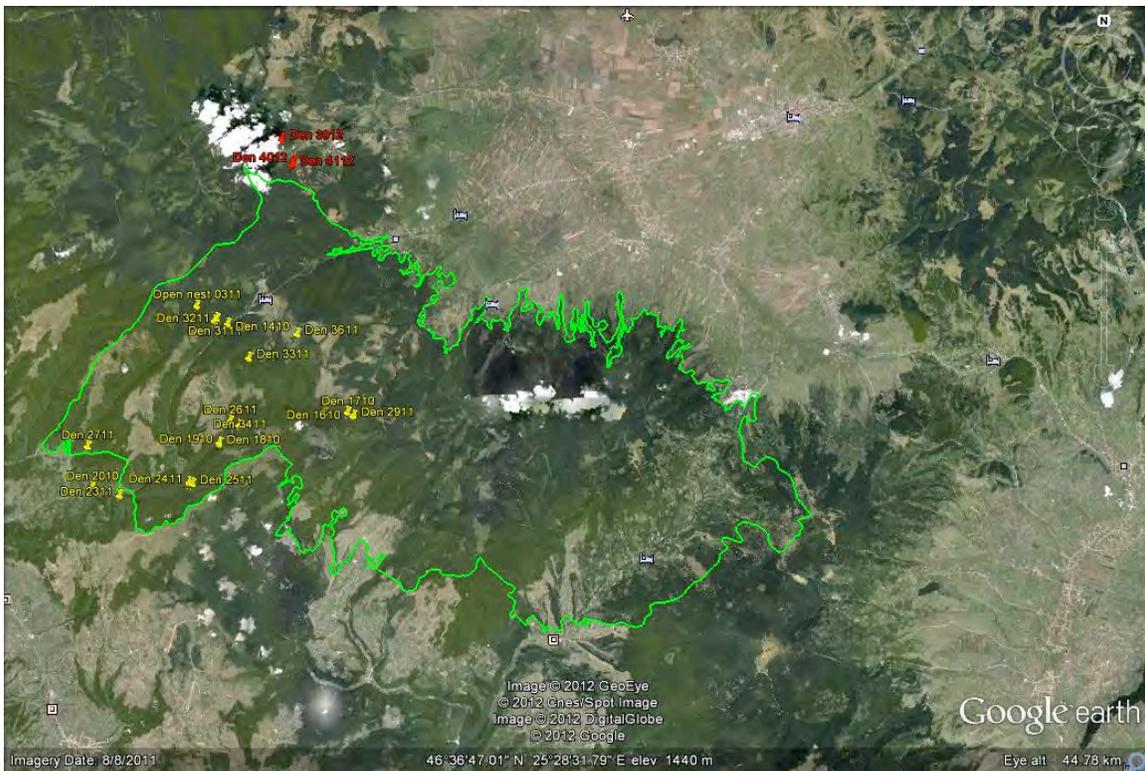


Activity 2.2. Improving scientific knowledge about bear den characteristics and denning habits:

During 2012 we have managed to identify 2 new bear dens and 1 new open-air nest in the project's hilly target area. We have identified 3 previously unknown bear dens at the edge of our mountainous project area. We have also checked a number of other locations (indicated by various stakeholders as potential denning areas), but without success. At this moment, we know the locations and possess the measurements of a total of 41 bear dens and 4 open-air nests, in and around our two target sites. This is the final dataset that will be used to prepare the joint scientific paper with Croatian experts Djuro Huber, Josip Kusak and Slaven Reljic. In this sense we are currently working on various GIS datasets needed for the computer modeling for the scientific article.



The hilly target area (outlined in green), the already known den locations (in yellow) and the den locations discovered in 2012 (in red)



The mountainous target area (outlined in green), the already known den locations (in yellow) and the den locations discovered in 2012 (in red)

Activity 2.3. Improving scientific knowledge on bear food habits and diet composition:

Unfortunately, we were not able to start this activity yet. We have bought the necessary equipment (a large refrigerator), and a mesh system with various mesh sizes (for washing through the scats), but we were not able to find a qualified botanist who could identify plant species from the bear excrements. We had an agreement with the Biology Faculty from the Babes-Bolyai University (Cluj Napoca), but the graduate botanist who was supposed to examine the scat contents has decided to write her thesis from a different subject. We will look for another candidate for this work.

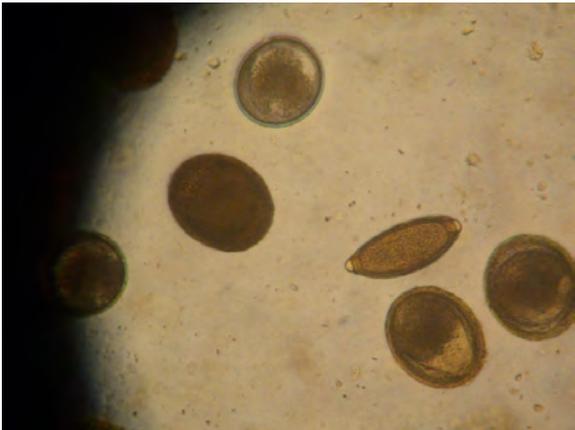
Activity 2.4. Parasitological study:

Since the start of this activity, we have managed to analyze (together with the veterinarian specialist with whom we work in the present project) the following number of samples:

- digestive tracts & inner organs from a total of 13 bears shot by hunters (12 during 2012)
- 11 scat samples from the Bear Cub Rehabilitation Center (0 in 2012)
- 5 scat samples from the Tirgu Mures ZOO (0 in 2012)
- 88 scat samples collected from the wild (88 in 2012)

The only problem (limitation, actually) we see with this specific activity is, that with the equipment we possess, we can identify parasite species only to the Genus level (based on morphological characteristics). For species level identification, we would need much more advanced technology (for example, PCR).

A few samples of our results so far:



Baylisascaris sp. and Trichuris sp. eggs



Trichinella sp.



Baylisascaris sp. adults

Activity 2.5. Genetic study of bears:

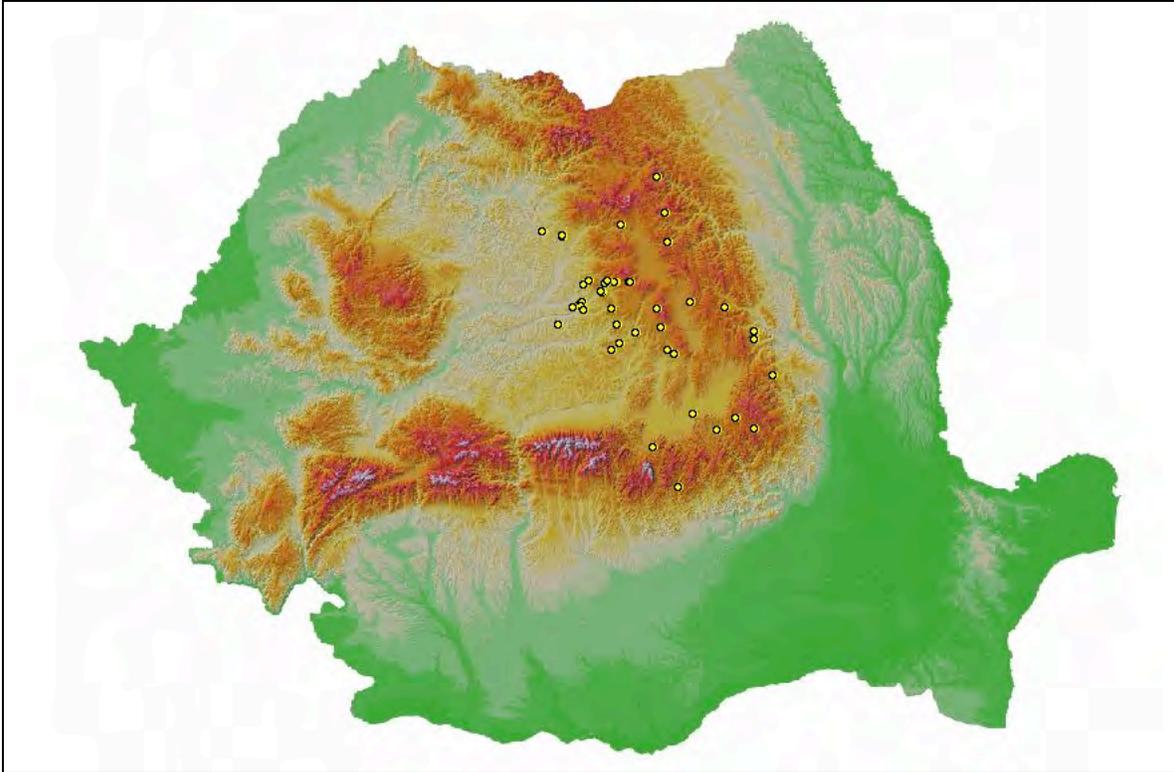
In 2012, we have obtained genetic samples from a total of 37 bears shot by hunters and 1 sample from a female bear that we have sterilized – all of these samples were sent to the Senckenberg Institute (Germany). All of our samples are from Romania's Eastern Carpathians and their foothills (with 1 single exception that can qualify as being from the Southern Carpathians).

For the same study, additional samples from Romania have been sent by the Promberger family (former coordinators of the Carpathian Large Carnivore Project – CLCP).

We have stopped sending genetic samples to the Senckenberg Institute in October 2012. In the period of April 2010 – October 2012 we have managed to obtain genetic samples from a total of 57 animals.

The Senckenberg Institute is currently analyzing the samples and will prepare a scientific article on the results, in cooperation with us.

The provenance locations of the 57 genetic samples acquired by the Milvus Group, within the present project:



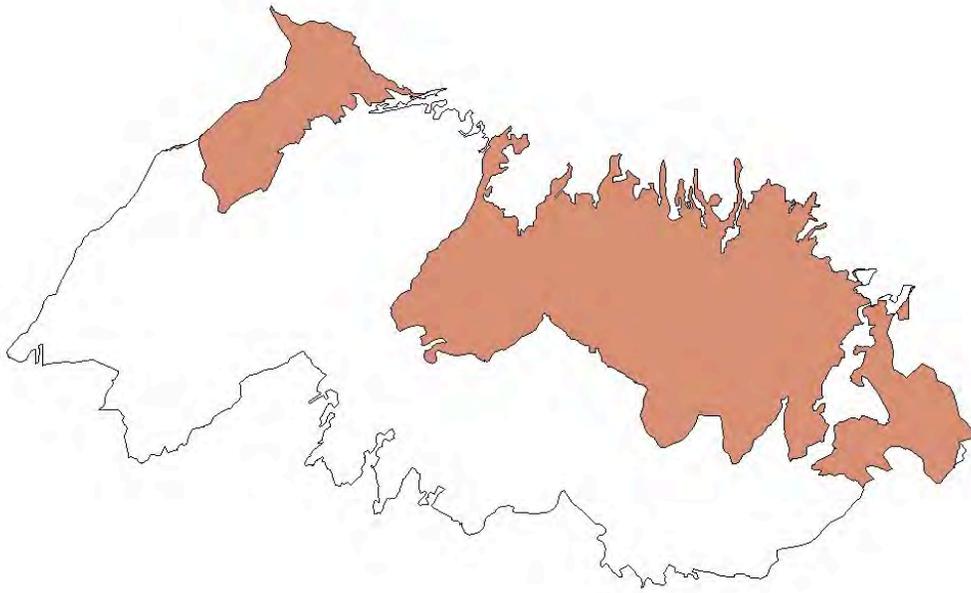
Objective 3: Securing a suitable habitat for the bears:

Activity 3.1. Inclusion into the Natura2000 network (European network of protected areas, designated on the basis of the EU's Habitat Directive):

In November 2012, the Biogeographical Seminar for Romania's Natura2000 sites designated under the EU's Habitat Directive took place in Bucharest. Before the Seminar, members of the Milvus Group have prepared an extensive documentation for a significant number of species and habitats, arguing that the current Romanian network of protected areas is insufficient and poorly designated, thus new protected areas have to be established. This documentation – part of which was explicitly about bears – has been sent to contacts from the European Topic Center before the Seminar, accompanied by a considerable lobbying effort from our side. Intense lobbying was also carried out at the Seminar itself, where 4 members of the Milvus Group (including the current project's coordinator) were virtually the only representatives of the Romanian NGO community. Even though we strongly feel that our arguments were based on scientific facts and were right, while the government's arguments were purely emotional and most of the time without any real background (not even on a purely logical level), the ETC commission's decisions have favored them almost on every single species and habitat, with very few exceptions. Thus it is virtually decided that there will be no additional Natura2000 sites designated for bears, with one possible exception.

This single exception is represented by the current project's mountainous target area, or, more precisely, a part of it: approx. 30 % of our original designation, which is already an overlapping Natura2000 site designated under the EU's Bird Directive. These 13185 ha (out of the 33952 originally proposed) are definitely still worth a "fight" from

our side, so we will do everything in our possibilities to see this new site accepted. In this sense, following the conference, we have kept on with lobbying at the ETC - of course the government representatives very strongly oppose this. However, the ETC's decision should be final within a few months.



Our original proposal of the project's mountainous target area as a Natura 2000 site, as well as the part overlapping with an existing Natura 2000 site (EU Bird Directive), which still has some chances of being designated as a protected area (in brown)

Activity 3.2. Mitigating the negative effects of the planned highway section crossing the site:

In December 2012 we have finished the 2 year long monthly monitoring of the planned highway sections within the two project sites. The goal of the monitoring was to identify the main corridors used by bears across and / or along the planned highway route – we consider that the corridors (or areas of high importance) used by bears are the transect segments (of variable length) with high numbers of signs of the bears' presence-activity. During 2013 we will analyze the data gathered within the last 24 months and identify the future fragmentation hotspots. Following this, we plan to prepare a document which will be used for negotiations with the National Company for Highways and Motorways. Also, if possible, the results of the monitoring will be published in a scientific paper, which should also serve as an additional argument for increasing the permeability of the future highway.

These are the results of the activities foreseen for 2012.

Besides these, there were some results not anticipated within the project. Probably the most important out of these is that in June 2012 we managed to confiscate two small bear cubs (siblings, male and female) that were kept illegally in a car repair shop in the city of Sighisoara. They ended up in the Orphaned Bear Cub Rehabilitation Center in

Balan (Harghita county, Romania, operated by Leonardo Berezcky). The action was carried out with the help of the Police (Firearms and Ammunitions Directorate) and the Mures County Environmental Guard (a control body of the Ministry of the Environment). Both cubs stand very good chances to be successfully rehabilitated: after approx. 2 years spent in the Center, they will be released back into the wild (probably also fitted with collars – so that their behavior can be carefully monitored). Following their relocation to the Rehabilitation Center, they are already behaving as they should as this early age. The former “owners” were charged by the competent authorities (Police and Environmental Guards).



The cubs we have confiscated in 2011 (2 small males) are doing very well. Together with other orphaned bear cubs, they now reside in a fenced in enclosure of approximately 5 ha of forest within the Rehabilitation Center – this is already the 2nd phase of their rehabilitation. From here – by freely climbing out over the fence – they regularly explore the surrounding forests and mountains – and then come back to the safety of the Center. If they evolve properly, they will probably be released back into the wild in 2013 – fitted with collars, so that Leonardo can further monitor their behavior and intervene, if necessary.

Targu Mures, Romania
16th of January, 2013

Project coordinator,
Csaba Domokos



A handwritten signature in blue ink, which appears to read "Csaba Domokos".