15<sup>th</sup> of October 2013

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# Wolf monitoring in the Holy Cross Mountains region - 2<sup>nd</sup> interim report

# Monitoring since 1th of March 2013 till 15th of October 2013

## Methods and the area of wolf monitoring

As in the previous period, monitoring has covered mainly three forests - the western part of the Holy Cross Forest (PS), Niekłań-Bliżyń Forest (LNB) and Iłża Forest (PI) (Fig. 1). In March 2013 prevailed good snow conditions, so during this period we could snow track the wolves using GPS. In April, after the descent of snow, we detoured the forest roads, to collect the wolves' scats, which had lain the winter frozen, under the snow. We toured the forest roads in three forests that we monitored so far, but also in additional Przysucha Forest District, located northwest of Niekłań-Bliżyń Forest (LNB).

The analysis of the scats content is being done by Katarzyna Lewalska. The collected material will form the basis of her thesis, carried out under the direction of Henryk Okarma at the Institute of Environmental Sciences, Jagiellonian University.

Since mid-July, we tried to locate monitored packs by howling stimulation. In the stimulation 2 to 9 people took part. They were divided into two or three teams. Each team had a car. In the hours 9 p.m. to 1 a.m., the teams were setting up every 1.5 km along the forest road. After having taken the places, we were starting howling at the same moment. Then we listened if the wolves answered. When wolves replied, using a compass, we tried to define the direction from which the howling was coming, and tried to determine the number of howling individuals and the number of pups (they howl in distinctive, easily recognizable way). We were determining the direction, from which we heard howling, in the same time from a few locations. If the wolves did not response, the entire procedure was repeated in the following locations (up to 10 times), while trying to cover the largest area of forest. The home range of the pack in the PI was controlled every two weeks (a total of five times), as well as home range of the pack in LNB. Home range of the pack in the PS was controlled on average every week, for a total of 11 times.

As in the previous period, we collected all information about wolves from the Forest Service, hunters and local people.

#### Results

In March 2013, thanks to the residual snow cover, we could do 7.6 km of snow tracking in our three monitored areas. Tracking confirmed the number of wolves seen throughout the winter season - two wolves in the LNB, three wolves in the PS and five wolves in PI.

After the snow cover had melted, we found 38 wolf scats in three monitored areas, 26 of them were collected for analysis of diet. Just after the snow had melted we conducted two road inspections also in Przysucha Forest, where, in a quite small area, we found another 13 scats (Fig. 1). It seems that those scats did not belong to the wolf pair that used regularly the area of LNB but to a separate pack. The area, in which we found those scats, seems to be a center of this pack home range.

We obtained the response to howling stimulation in two locations: the LNB and PI. In the LNB on 25<sup>th</sup> of August, around 11 p.m. we heard the answer of the whole pack - at least two adults and at least three pups, born this year. The place is located approximately 4 km northwest from the area, where in the winter season we used to find many tracks belonging to couple intensively marking their range (LNB Pack) and in February, we also noted oestrus signs (blood in the snow ) (Fig. 1).

On the 5<sup>th</sup> of October, near 10.30 p.m., we obtained the response to howling stimulation in PI. After stimulation, the whole pack replied. We estimate that it contained at least four adults and difficult to quantify number of pups (at least 3). The place from which we heard a pack is located in the area, where during the winter season we used to find wolves tracks and note the signs of oestrus on the snow. Despite frequent attempts of howling stimulation in PI, we could not get a response from the wolves in this area. Their present occupation of the region, in which we had tracked them during the winter, was confirmed by finding the scats on 5<sup>th</sup> of May and 7<sup>th</sup> of October.

Moreover, from the vicinity of Piekło village near the town of Końskie, we obtained the information and images, suggesting the presence of wolves in this area. Local naturalist (A. Pękala) on 24<sup>th</sup> of February took a photos of tracks, that seemed to belong to a single wolf. Moreover, in August, two wolves were seen on the road leading from Nowki to Świerczów, forest located between PI and LNB (R. Sowa's information).

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Table 1 1. Summary of the results of wolf monitoring in the Holy Cross Mountains region from 1th of March 2013 till 15th of October 2013

Lokation	Scats	Response to the bowling stimulation (number of adults and pups)
Niekłań-Bliżyń Forest (LNB)	20	Yes (2+3)
Western Holly Cross Forest (PS)	4	No
Iłża Forest (PI)	1	Yes (4+3)
Przysucha Forest	13	not attempted

Fig. 1 .The map of wolves' monitoring activities in Holy Cross Mountain region. The blue points represent the wolf scats. In the packs from Niekłań-Bliżyń Forest (LNB) and Iłża Forest (PI) we were able to confirm wolves breeding - a pack with pups responded to howling stimulation (yellow circle). In case of pack from Holy Cross Forest (PS) we has not obtained a response to howling stimulation. The polygon marks the area in Przysucha Forest District where we found 13 scats in April – possibly another wolf pack.

