



Bears in the Canton of Grisons 2007 / 2008

Removal of JJ3:

Report on the Deliberations of the Commission for the Management of large Carnivores in the Canton of Grisons (IKK GR)

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Bears in the Alps and in Switzerland – Preliminary Remarks

The brown bear is returning to the Alps. On one hand, the Dinaric population is spreading naturally into the Slovenian, Austrian and Italian Alps; on the other hand, in recent years, bears have been freed in Austria and in Italy. The natural expansion of the population with females capable of reproducing is a slow process that will last for decades. However, migrating young bears can be found far ahead of the population front. Young males have already reached Austria, Bavaria and Switzerland.

The brown bear is part of the natural heritage of the Alps, and Switzerland welcomes its return. Although the ecological conditions in the Alps are now favourable for bears and better than they were in the times of its extermination, the bears are returning to a different world than a hundred years ago. Although the extent of the forests has increased and the natural food basis has improved, at the same time the Alps are one of the most intensively used mountainous areas in the world. Acceptance of bears by those who live in the areas where bears are to be found will be crucial for the survival of the brown bear in the Alps.

Bears can cause damage to farm animals or to other property, and they represent a potential risk for human beings. This makes the conservation of the bear in the Alps particularly tricky. In a landscape dominated by human beings there has to be active management. The measures necessary are: informing people, preventing and reimbursing damage, harassment actions to frighten the bears away and removing individual bears, if other means fail. The removal of a bear requires not only comprehensive assessment of the behaviour of the animal, but it must also take into consideration the national or local situation of the bear population and the public perception of the event. In doing this, the common focus of all alpine countries is the protection of the entire population, not that of individual bears.

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Inconspicuous Bear MJ4

Since June 2007, the three year old son of the shy female bear Maja - reintroduced through the Trentino project - has been staying in the Münstertal - Zerne - Lower Engadine region. This young bear lives withdrawn in the forests and side valleys on both sides of the Inns. It can be observed now and then, and sporadically it is noticed as a result of individual attacks on farm animals or damage to beehives. MJ4 over-wintered in the area of Val Cluozza – Swiss National Park. It has been awake since the middle of March and has remained relatively retreated in the woods of the Central Engadine. Overall, life with this bear has been relatively conflict-free for nearly a year.

The experience with MJ4 over recent months shows that Switzerland also can deal with “inconspicuous bears”, which basically avoid human beings and their settlements.

Problem Bear JJ3

Origin: The situation with JJ3, the third son of Jurka, a female problem bear, appears to be quite different. As a young bear captured in Slovenia, Jurka stood out soon after release in the Trentino project. This bear was not shy, often looked for food at the edge of settlements and wandered through villages. Both the first male cubs – JJ1 and JJ2 – and the second litter – JJ3, JJ4 and JJ5 – accompanied their mother in search of food in human settlements. The biologists responsible for the Italian reintroduction project suspect that, already in Slovenia, Jurka was fed behind a hotel, as an attraction. Probably it was also fed by private individuals in the beginning in the Trentino. The application of harassment techniques over a long period did not bring about any behavioural changes in Jurka. After a long process of policy assessment, those responsible for the project finally decided this summer that Jurka is a problem bear that cannot be re-educated, and so to capture it and put it in an enclosure, away from the population. Jurka's first two male offspring are no longer wandering in the wild: in 2006 JJ1 stood out in Bavaria as a problem bear that was not shy and was shot as a risky bear, JJ2 has been missing since autumn 2005, and brother JJ5 is currently attracting attention in Italy with difficult behaviour similar to that of JJ3.

Nature: In June 2007, JJ3, the two year old male from Jurka's second litter wandered into the Canton of Grisons. It had already been noticeable by its attacks on sheep, damage to beehives and preference for rubbish bins in the South Tyrol and then during all its wanderings through the Engadine, over the Flüala pass, in the landscape around Davos and as it continued on into the Albula valley. Therefore, in August 2007, it was captured in accordance with the “Swiss Bear Plan” and was fitted with an emitting collar.

At the beginning of October 2007, when JJ3 regularly wandered into the settlement areas in the Lenzerheide region and looked for food mainly in rubbish containers, the IKK and the advisory experts decided to start a programme applying harassment techniques, with the objective of altering the behaviour of the problem bear so that it would be more shy and would learn to avoid human beings and settlements. An analysis of the bear's nature was carried out, so as to design the programme in an individual way. This made it apparent that all observations made by wildlife biologists, gamekeepers, hunters, sheep-owners and tourists indicated that JJ3 is an individual that is not shy but not aggressive. Sometimes the bear avoided people, but much more frequently it was not impressed by people, shouting, cars etc.; people could approach it to a distance of less than 20m without it seeming troubled. Therefore JJ3 was indifferent to people, but had learned that in their proximity it could easily find food.

Application of harassment techniques in autumn 2007: On the basis of the analysis of the bear's nature and theoretical considerations (see appendix to this report), a re-education plan was produced for the Lenzerheide region in October 2007. Thanks to the emitter, the circumstances were ideal for the application of harassment techniques: JJ3 was shot at with rubber shot and petards repeatedly and in a targeted way when searching for food amongst rubbish in settlements. After some time, it was possible to do this as wished, according to the textbook. It was repeatedly possible to apply harassment techniques to JJ3 in ideal situations, where and when the event took place. Unfortunately,

the programme of harassment techniques had hardly any effect. JJ3 did not change its behaviour. Although the bear showed small-scale avoidance behaviour as regards the places immediately adjacent to firing, the problem bear did not even start to change its behaviour of looking for food in constantly occupied settlements.

The hibernation period: At the end of November 2007, JJ3 disappeared to hibernate in the forested area on the right flank of the Albula valley. The Canton of Grisons took advantage of the relaxed situation created in this way to analyse the situation regarding how to handle organic waste in the cultural landscape. Together with experts from the bear monitoring programme, they produced a draft "waste plan". So that in the medium to long term it would be possible to live with bears, it is necessary to keep the omnivores away as much as possible from remains of food, to avoid rubbish bags lying around, unsecured containers, open compost heaps etc. Informing the local authorities and the population about correct waste disposal was possible through personal contacts and information events. The Canton of Grisons intends to make the rubbish bins along certain cantonal roads "bear safe" in 2008. JJ3 woke up in the middle of March 2008. The monitoring programme was immediately re-intensified by means of satellite emitters and hand bearings, and with the hope that the harassment techniques applied the previous year had durably impressed the bear to fear people and settlements.

The application of harassment techniques in spring 2008: Unfortunately this hope was not fulfilled. After just a few days JJ3 was again looking for villages and settlements in the alpine pastures, to look for food there. Since the end of March, the bear has been going into a settlement practically every night, searching for waste, inspecting houses and barns, breaking cottages open, running into garage entrances, looking through windows, eating cat food behind houses etc. On several occasions the bear also came across people, but their presence did not disturb the young bear in the least. Every night JJ3 was overseen and followed by several gamekeepers, and in four situations it was possible to shoot at it successfully with rubber shot and petards. Each time it was fired at JJ3 escaped into the forest, only to return to a village the same or the following night. In one case, although this is forbidden, private persons put out meat waste as food for the bear. Unfortunately at least one such incident also occurred in autumn 2007. Although JJ3 immediately reacted to the harassment action by escaping, and subsequently avoided the places where it was shot at, the bear did not basically connect the unpleasant experience with its behaviour.

Risky Bear JJ3

Assessment according to the "Swiss Bear Plan": In view of the fact that JJ3 has not reacted durably to the harassment techniques, the bear has become a potential risk. The risk is simply unacceptably high that a meeting with people could occur, which could lead to a fatal accident. Thus one criterion of the bear plan for shooting JJ3 is fulfilled. The plan envisages that a bear, which has lost its fear of people, repeatedly goes into closed settlement areas and does not become more fearful of people despite repeated actions with harassment techniques should be shot.

Decision making: *The IKK* – in consultation with the Grisons Councillor Stephan Engler who is responsible for granting approval for shooting and with the management of the FOEN is convinced that:

- It is very unlikely that further application of adverse techniques will correct the behaviour of JJ3. The young bear learnt the difficult behaviour from its mother. Moreover, the search for food in human settlements was so frequently rewarded by "good food" that this behaviour could only be altered - if at all - by durable application of harassment techniques and / or complete removal of the source of food.
- If the harassment techniques were not successful, the presence of JJ3 in villages would have to be tolerated in the medium term; the risk of meetings between bears and human beings would remain or increase, as would the latent existing danger of an accident.

- Durable application of harassment techniques cannot be the objective, because on one hand it is a problem from the point of view of animal ethics, and on the other hand because the cost in terms of staff means that such a situation cannot continue for long.
- A bear-proof waste system cannot be realised in the short term, although in the medium to long term this is the only way to achieve a landscape that is suitable for bears.
- Capture with the goal of resettling the bear is not an option according to the “Swiss Bear Plan” or in the present situation, since the problem would only be displaced and that could be expected to produce a problem bear in another population. The only conceivable place for resettlement in the Canton of Grisons would be the Swiss National Park, since it is furthest from constantly inhabited settlements. However, since MJ4 already lives in this area, the appearance of a problem bear such as JJ3 could reduce the present acceptance of bears amongst the local population.
- Capture with the objective of returning the bear to Italy is not an option, since neither international agreements nor the conversations with the Italian authorities at the end of October 2007 open up such a possibility.
- Capture with the objective of keeping the bear in a zoo or park for animals is not an option, since a young bear that was born in the wild and is now two years old would have great difficulty adapting to life in captivity.

Therefore the IKK together with Councillor Stefan Engler and the management of the FOEN decided on the following action:

- ***If JJ3 again wanders into closed settlements this bear will be a risky bear according to the “Swiss Bear Plan”, and will be removed by the enforcement agency of the Canton of Grisons i.e. shot or put to sleep.***
- ***As soon as possible, the Canton of Grisons and the Federal Office for the Environment (FOEN) will communicate the removal of the “risky bear”.***
- ***The Canton of Grisons will commit itself to another way of dealing with organic waste in areas where there is a durable presence of bears, so that in the future bears can be kept as much as possible away from settlements.***

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Appendix:

Application of Harassment Techniques for Problem Bears

Initial position

According to the "Swiss Bear Plan" applying harassment techniques (also called aversive conditioning) for problem bears makes sense in principle if:

- a bear attacks farm animals more and more audaciously and near to human settlements;
- a bear has apparently learnt that it is easy to find food near to human beings;
- a bear in a process of habituation to human beings stays around, so it shows less and less fear of human beings;
- a young bear tends towards the behaviour described above, so it is developing into a "problem bear" (preventive intervention).

So the application of harassment techniques seeks to achieve a change in the polarisation of a type of behaviour that is establishing itself. This re-education must be based on the currently knowledge in "educational psychology" of wild animals.

Objective of applying harassment techniques (aversive conditions)

At the level of effects:

The **bear avoids people, settlements, farm animals in pastures near to settlements** etc. and prefers remote areas of forest and mountains, i.e.:

- the bear is shy and retreats from human beings;
- the bear makes a connection between alpine settlements, farm animals, barns, villages etc. and human beings;
- shyness towards human beings directs the bear's behaviour in terms of its use of space.

(The aim of applying harassment techniques is not primarily damage prevention. Less damage is the result of the bear's fear of human beings.)

At the level of achievement:

Wariness towards people is acquired durably through **variation in situations and methods**, i.e.:

- the bear is exposed to a regular programme of harassment techniques and is worked on by repeated individual actions;
- the bear is always subjected to harassment techniques in different situations and in many places, so that it clearly links the bad experiences to people;
- the bear is worked on by different people using a variety of methods.

Situations

Harassment actions are only carried out in undesirable situations, so that the bear can make a direct connection in time and place between its behaviour and the negative experience. Undesirable situations are:

- The bear comes into closed settlements.
- The bear roams repeatedly at the edge of villages or alpine pastures and settlements.
- The bear looks for food around chicken coops, rabbit hutches, orchards, compost heaps etc.
- The bear enters into buildings.
- The bear circles herds of farm animals.
- Despite meeting people, the bear stubbornly stays near to paths and roads that are regularly used.
- The bear repeatedly empties rubbish containers.

Possible methods

- Firing rubber shot
- Firing petards
- Warning shots
- Whistles, warning horns
- Hunting with barking dogs and noisy people
- Hunting with helicopters

Sequences of events

Capture and emitters:

If it is possible in some way, a problem bear is captured and fitted with a GPS/GSM-VHF emitter. The IKK takes the decision on capture. Capture is also the first action in applying harassment techniques.

Individual re-learning plan:

Based on an analysis of the nature of the specific problem bear the IKK drafts a specifically designed plan for the application of harassment techniques. A re-education programme is drafted on the basis of situations that have been experienced and the observed behaviour that have led to the bear being ranked as a "problem bear" or potential "problem bear" (preventive intervention).

Execution and recording of the harassment actions:

The bear intervention troop is responsible for carrying out the harassment actions. After the IKK has accepted the individual plan of harassment actions the leader of the bear intervention troop (Molinari) decides on carrying out concrete action. He informs in advance the president of the IKK and the leader of the authority responsible in the canton concerned.

Every action is recorded, with detailed descriptions of the analysis of the problematic situation, the harassment action and the behaviour of the bear. This record must be written directly after the action and conveyed to all members of the IKK. ¹

Protection during harassment actions:

The safety of every harassment action is ensured by a state gamekeeper carrying a loaded weapon who will kill the bear if a dangerous situation for people should arise. The gamekeeper decides on his own whether to use his weapon.

Stooping the harassment:

The IKK decides whether to break off a successful or unsuccessful re-education programme. Should the re-education fail, in that repeated penetration of the bear into closed settlements or buildings cannot be prevented, the IKK requests that the responsible cantonal government issue an authorization to shoot the bear.

R. Schnidrig, 16.8.2007

¹ The objective of the record is to collect as much information as possible about each action, so that it will later be possible to carry out an objective technical analysis of the reasons for the success or failure of the re-education plan.