

## **Communication activities about alpine marmot reintroduction in the Dolomiti Bellunesi National Park project (Italy)**

E. VETTORAZZO<sup>1</sup>, A. BORGO and N. MARTINO

*Parco Nazionale Dolomiti Bellunesi, Piazzale Zancanaro 1, 32032 Feltre (Belluno), Italy*

*Received 6 September 2008, accepted 19 May 2009*

The project of alpine marmot reintroduction in the Dolomiti Bellunesi National Park started in 2006. With the reintroduction project, a communication campaign was carried out. The marmot was used as an instrument for spreading environmental awareness. Besides the traditional press bulletins on the local and national media, a “referendum” was carried out to give a name to the released animals. With the local TV a special report was made and the RAI-2 national television news dedicated a report to the project. A full page of the Park’s bulletin “Tracce” (56,000 copies) was dedicated to the reintroduction of the marmot. The project was also inserted in the environmental education programs. In the Park’s website a section dedicated to the project was created. A technical report and a text for children were published.

KEY WORDS: alpine marmot, reintroduction, Dolomiti Bellunesi National Park, communication activities, environmental education

---

### INTRODUCTION

The Dolomiti Bellunesi National Park, created in 1993, is spread over 31,000 ha in the Province of Belluno (Italy), surrounded by the valleys of Cison (to the west), Piave (to the south) and Maè (to the east). It includes the mountains groups of the Alpi Feltrine, the Monti del Sole, the Schiara-Talvena, the Prampèr-Mezzodi and part of the Tamer-San Sebastiano group. The Park is one of the largest wilderness areas in northern Italy, the least known and least visited area of the Dolomites.

In the south-eastern portion of the Alpine chain the marmot had been hunted since pre-history (DAL PIAZ 1929, BRESSAN 1988). Probably, the extinc-

---

<sup>1</sup> Corresponding author: Enrico Vettorazzo (E-mail: e.vettorazzo@dolomitipark.it).

tion of the species from Veneto and Friuli prairies was a consequence of such hunting activities. In these areas the high altitude prairie is fragmented and this insular distribution prevented a spontaneous re-colonization.

The project of alpine marmot reintroduction in the Dolomiti Bellunesi National Park started in 2006 (BORGO & VETTORAZZO 2008a) and finished in 2008, with these aims: to expand its distributional area in the southern part of the eastern Alpine arc and to increase the diversity of the Park's zoocenosis.

In parallel with the scientific reintroduction project, a communication campaign was carried out to spread the results of the activities and create a personal and "affective" bond between residents and beneficiaries of the protected area (especially younger people) and the marmots. The marmot was thus used as an instrument for spreading greater environmental awareness.

A similar activity was carried out by the Marmot Recovery Foundation, for the Vancouver Island marmot conservation ([www.marmots.org/kids.htm](http://www.marmots.org/kids.htm)).

This is the reason why different activities were planned and carried out because "behaviour change strategies include: ways of tailoring a message to the audience, types of information to provide, and methods for creating commitment" (MONROE 2003).

The communication and environmental education (EE) in this reintroduction project is a part of marmot conservation strategy in the Park, because the EE programs for wildlife should increase public knowledge and stimulate action for natural resource management (JACOBSON 1995).

The communication activities were multilevel and multipurpose. At a local level the aim is to involve the local inhabitants with direct contact, informing them about the activities of the Park which becomes a common heritage, not just a mere and distant bureaucratic machine, sometimes perceived with suspicion and unconcern.

Marmot preservation is an instrument to convey the importance of protecting the whole mountain ecosystem and to make the Park aims shared by the local inhabitants, increasing their acceptance and involvement. At a local level we work with schools, exploiting the hypothesis, already studied in literature, "that children learn and retain conservation principles in school environments and transfer them to their parents" (VAUGHAN et al. 2003). At a local level adults are also involved, both indirectly (through the children taking part in school programs) and directly, with different means of communication (newspaper, television).

Communication was planned and produced also at an extra-local level, with the aim of spreading the Park activities to a wider public, reinforcing the common image of a privileged place, invaluable for the preservation of endangered species, stimulating visits to the Park that create economic-linked industries for the local population.

## METHODS

### *Activities with media*

In addition to the traditional press bulletins to the local and national media, a "referendum" was carried out to give a name to the released animals and to the 33

newly born. The operation was so successful that it was taken up again by “Il ruggito del coniglio” (The roar of the rabbit), a historical and well-known radio program of Rai Radio Due, a “cult” program that catalyses a large morning audience. The program allows also adults (during the morning younger people are at school) and all the people who cannot attend the Environmental activities carried out by the Park, to become acquainted with the project (see § Environmental Education). In the program web site (<http://www.radio.rai.it/radio2/coniglio/>) a page was created that remained on line for a radio season (from autumn 2006 to June 2007), during which listeners could connect and fill in a form with the names to give the marmots that were going to be born from the “founders” reintroduced in the Park. At the end of the name collection a live national program was broadcast, where the hosts commented on the names suggested by the listeners with the people responsible for the Park.

Inside the Park’s website ([www.dolomitipark.it](http://www.dolomitipark.it)), a section dedicated to the project was created. With the collaboration of the local TV Telebelluno, a special 20 min report, illustrating the stages of capturing, tagging, and releasing of the animals, was made. The TG2 (RAI-2 national television news) also dedicated a report to the project, which was broadcasted on the 1st of June 2007.

#### *Park’s bulletin and books*

An entire page of the Park’s bulletin “Tracce”, 56,000 copies sent to the over 102,000 residents in the 15 townships of the Park (equal to 48.5 % of the residents in the Province of Belluno), was dedicated to the reintroduction of the marmot.

Finally, two books were published. The full colour technical report (BORGO & VETTORAZZO 2008a) and the popular text “Marmotte alla riscossa” (Marmots at arms) (BORGO & VETTORAZZO 2008b), illustrate the biology of the species and the reintroduction project to very young people, putting side by side very simple texts with large pictures, purposely ideated and created for this publication. In fact VAUGHAN et al. (2003) suggest that the use of coloring books probably was important to effectively transfer informal knowledge from teachers to students to parents.

#### *Environmental Education*

The project was also inserted in the environmental education programs “A scuola nel Parco” (At school in the Park), together with the laboratory “Anch’io sono una marmotta” (I, too, am a marmot), dedicated to nursery school children and to the children of the first 2-year Primary school courses. The didactic activity envisages having children experiencing the typical day of a marmot, coping with the problem of finding food, recognizing the sentinels’ alarm whistles, escaping in time inside the burrow, and correctly preparing for the long winter hibernation. For the 3-year Primary school courses and for Middle and High schools, the laboratory “Il Parco delle marmotte” (The Park of the marmots) was, instead, ideated. This laboratory, starting from the animals’ ecology and behaviour, gives a deeper insight into the importance and reasons for the reintroduction project, extending the research into stories and legends having the marmots as protagonists.

Environmental education activities devoted to the marmot started in school year 2006-2007 and were fulfilled by the “Mazarol” cooperative guides, that include the Park’s official guides who attended a training course held by Ente Parco.

The satisfaction level of the teachers was evaluated through questionnaires handed out at the end of the activities, which highlight the positive and negative aspects of the programs.

## RESULTS AND DISCUSSION

The results after media appearance are indirectly estimated by the number of the park's website pages dedicated to the marmot. The term "marmot" is not one of the first hundred words used for research in the Park site. In May 2006, after the release of press bulletins to present the project, it jumped to the 65th place. Similar results were recorded in 2007 when, in May, the month of the release of the second group of marmots, was properly promoted in the media, the word "marmot" reached the 71st place among the ones used to make researches on the Park's internet portal. The following month (June 2007) it was at the 72nd place, declining to the 96th in July and departing from the first 100 words in August 2007.

The TV special program on local TV network Telebelluno had great public success, so much that it was repeated several times. Telebelluno is seen throughout the Province of Belluno and potentially it could reach 210,000 people. The average audience of its news and its special programs is about 30-40,000 listeners (estimates by Telebelluno). In addition to this, it is the local TV network most visited by the people who live in the area surrounding the Dolomiti Bellunesi National Park. Finally, Telebelluno is also one of the most effective communication means to contact local inhabitants, since it reaches even the remotest mountain villages.

As regards the marmot's "baptism" on the web site, we must say, the idea is far from new, since it was carried out by A. Bryant, of the Marmot Recovery Foundation, which supports the preservation of the Vancouver Island marmot and has its own marmot adoption program (<http://www.marmots.org/adopt.htm>). Also this initiative obtained good public success, because the program is based on the two hosts' ability to ironically interpret the main daily news, inviting the listeners to call live to comment on it, with hundreds of names suggested by the listeners.

As regards Environmental Education, there was an overall participation (not only to the activities dedicated to the marmot) of 3136 children and teenagers in school year 2006-2007 and 3812 children and teenagers in school year 2007-2008, respectively equal to the 0.46% and to the 0.56% of the school population of the Veneto Region.

The first year 1335 children came from the schools of the 15 municipalities of the Park and 1801 schools outside the Park municipalities. The second year the local school children numbered 2092 compared to 1720 of the external schools. In school year 2006-2007 the activities involved 4.67% of the students in the Province of Belluno and in 2007-2008 the number increased to the 7.27% of the whole province. The laboratory "I am a marmot too" was chosen, among the Park's different offers of Environmental Education, by 3.6 % of participating schools.

In school year 2006-2007 43 assessment form have been filled by teachers, while in school year 2007-2008 the number of forms went up to 46. All the teachers were satisfied with the suggested teaching program and said they will go deeper with the topics dealt by the Park Guides.

The volume "Marmots at arms" published in 6700 copies, was sent to all of the schools that participated in the Environmental Education programs.

As concerns the communication activities, the program of marmot reintroduction in Dolomiti Bellunesi National Park has had a positive reply in terms of school population involvement.

Many teachers, after having received the book "Marmots at arms", talked to their students about the reintroduction project. In this way the Park and its activities became a very important topic to discuss during the lesson.

In the future it will be important to plan new and more sophisticated systems to evaluate the effectiveness of communication activities, expanding the feedback measure of the interventions carried out by the teachers of the schools involved in Environmental Education programs to children and adults living in the 15 municipalities of the Park.

#### ACKNOWLEDGEMENTS

This project is carried out with financial support by Cariverona Foundation.

#### REFERENCES

- BORGO A. & VETTORAZZO E. 2008a. The reintroduction of the marmot in the Dolomiti Bellunesi National Park. Rapporti n. 5. *Feltre: Ed. PNDB*.
- BORGO A. & VETTORAZZO E., 2008b. Marmotte alla riscossa! (Marmots at arms). Educazione ambientale n. 1. *Feltre: Ed. PNDB* (in Italian).
- BRESSAN F. 1988. Catalogue of the bony finds of the Palaeontologic-Anthropologic Section. *Udine: Pubblicazioni del Museo Friulano di Storia Naturale* 32 (in Italian).
- DAL PIAZ G.B. 1929. Fossil and living mammals of the Tre Venezie. Systematic part, 6. Rodentia. *Stazione Trentina di Scienze Naturali* 7 (2): 103-158 (in Italian).
- JACOBSON S. (Edit.) 1995. Conserving wildlife: International education and communication approaches. *New York: Columbia University Press*.
- MONROE M.C. 2003. Two avenues for encouraging conservation behaviours. *Human Ecology Review* 10 (2): 113-125.
- VAUGHAN C., GACK J., SOLORAZANO H. & RAY R. 2003. The effect of Environmental Education on schoolchildren, their parents, and community members: a study of intergenerational and intercommunity learning. *The Journal of Environmental Education* 34 (3): 12-21.