

# Perceptions and behavior of winter sports participants in Regional Natural Park of Bauges

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The development of ski touring and snow shoeing has led to an increasing human presence in mountains in wintertime. Wintertime is a difficult time for wildlife, due to rough weather conditions that cause animals difficulty to move and higher energy expenditure at a time where food is scarce. Yet, territory managers have very few data concerning the perception of wildlife by visitors. In addition, their impact (extensive travelling, displacement of feeding and resting areas) on wildlife is difficult to quantify. A research program has been led on the Bauges mountain range in order to deal with these issues. As local managers became interested in the impact of winter recreational activities, the Regional Natural Park got involved in the campaign « Respect to Protect » to promote a more respectful visitor behaviour. Thus, a partnership was set up with EDYTEM lab in order to get a better understanding about these visitors, their types of practice and their perceptions. .

## A growing trend: the increase of outdoor sports with potential impacts on ecosystems

In the field of sport sociology, studies show that sport continues to increase significantly all over the world, with diverse forms of practices (Borgers & al., 2015). Studies highlight various forms of practice within the same sport. In the field of outdoor sports, studies have focused on free flight, an activity practiced during the summer, in low (Corneloup, 2003) and high mountains (Lefèvre, 2004). However, no study specifically addresses the diversity of practice within participants of winter sports (skiing and snowshoeing). In addition, while wildlife representation by humans has been studied in the realm of geography (Boussin, 2008), few studies focused on the relationships of outdoor participants with wildlife and on whether the presence of wildlife influences (or not) the way they practice their activity.

In some areas, awareness campaigns towards nature-based recreationists are set up. This is the case of the Swiss campaign “Respect and Protect”. However, these conservation measures are not always successful. Recreationists often perceive these measures as an imposition; just restrict their freedom. This apprehension of conservation measures is also different, depending on the practice motivation of users (Immoos and Hunziker, 2015). Thus it appears that recreationists who practice with a performance objective are less interested in the natural environment (Steel & al., 2010). Therefore the protected areas managers need to know the profiles of sport participants to better target communication actions and awareness raising campaigns of users.

The objectives of the study are to:

1. Examine the relation between winter visitors and wildlife.
2. Evaluate if their type of practice is influenced by the perception they could have of wildlife disturbance, and how it could influenced their own behavior.

The study relies on a questionnaire survey and on semi-structured interviews, both led in winters 2014 and 2015

## Visitor's profiles

Results show that visitors are mostly men, over 31 years old, with a bachelor degree or higher. The main activity is ski touring, 75% of the people practice the activity more than once a week and 85% of them evaluate their level as "experienced" or "expert". The main reason for practicing the activity is the contact with nature. A correspondence analysis enabled us to identify 4 users' profiles: the stroller, the adventurer, the hedonist and the beginner.

We combined some variables to distinguish two groups within the panel: Visitors who are familiar with the territory and Visitors who are not familiar. Those who are familiar with the territory have been practicing for longer, include more experts, practice more often and practice usually in the Bauges.

## Perception of wildlife and disturbance

Two third of visitors have been able to watch wildlife in the Bauges mountain range. Most of them are pleased or even amazed to be able to see animals. About two third of them think they are occasionally a source of disturbance for wildlife. Recreationists associate sudden flight with disturbance. When the animal doesn't show an obvious reaction: if it only slightly moved or changed its behaviour, it is regarded as only a little bit disturbed. If the animal didn't react to the visitor's presence, the visitor usually think they didn't disturb it.

The *Game Bauges reserve* (a protected area situated in the Regional Natural Park) includes *wildlife refuge zones* that are zones where access is strictly forbidden in winter. The study shows that generally visitors don't know about these zones and their location. However, visitors who do know them, tend to respect it.

Finally, this study highlights issues related to the information and awareness campaign for visitors. Some signs are set on site but most people don't see them or don't pay attention to them. Only 15% of the panel knows about the campaign « Respect and protect ». And among those who know it, 48% already paid attention to the issue of disturbance *before* hearing about this awareness campaign.

In conclusion, better understanding of recreationists' motivations, and how they move in space can help to improve communication between managers of protected areas and outdoor sports participants.



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