### Allegato 4b\_1

# Surveillance in protected areas: an exploration on the importance of active protection of the territory.

Caterina Ferrari<sup>1</sup>

<sup>1</sup>Wildlife Science Snc, Loc. Norat 25 11010 Introd (AO) Italy

Corresponding author: Caterina Ferrari Email adress: caterinaww@gmail.com

IUCN (the International Union for Conservation of Nature) define a protected area as "A clearly defined geographical space, recognized, dedicated and managed, through legal or other effective means, to achieve the long term conservation of nature with associated ecosystem services and cultural values".

This definition immediately highlights the interaction between a protected area and human being, such as on the necessity to manage these territories. To conserve, protect, manage a territory and its natural richness imply regulars and complex actions, which in Italy and in the most of other countries are conducted by Surveillance services. Surveillance and protection are between the main characteristics of protected area and of their stories.

Protection is thus the objective of a Guard's job, together with the ability to facilitate a respectful and responsible integration of visitors within different naturalistic aspects of the territory. Different tasks and abilities are requested in this job, which may vary with respect of characteristics of different protected areas but which are generally similar to all.

Sharing jobs, tasks and abilities between different Parks could demonstrate that protection of nature has to share precise and similar characteristics, such as example regular control of the territory and the knowledge of nature.

Today we are asking ourselves how much worth active protection (active because it is maintained trough the regular action of the Surveillance service) and which will be the right ways to continue

the protection of protected area in an effective way. How much the role of Guard has changed or has to change in these years, which have leaded the whole society to important changes?

The action 4b of the "GREAT interegg" project had as its main objective a survey about the value of protection within protected area. The survey has been conducted by presenting two different types of questionnaires to 2 target groups: the first one ("Questionnaire A") has been presented to operators and responsible of Surveillance (main actors of protection) of european parks (mostly Italian and Austrian, 22 questionnaires in total); the second one ("Questionnaire B") has been presented directly by the Guards of the Gran Paradiso National Park (Guardaparco) to tourists encountered during their service on the protected territory (620 questionnaires tot).

In Questionnaire A we wanted to explore which is nowadays the reality of the Surveillance and which are the new characteristics ans necessity generated in the last years; Also, explore what is common and what could be done in common between protected areas was part of our intention. The answers we received show that some tasks (more than others) characterize strongly the job of protection and are widely shared between different protected areas. Between these a good awareness of the territory and a regular monitoring are always considered the most important in all the question. Other activities, maybe more recent, has a relevant role during the service such for example environmental education or collaboration to scientific research.

While Questionnaire A revealed some heterogeneity in the answers of the interviewed, Questionnaire B showed a clear and strong opinion about the importance of active and organized protection within a protected area. Guardaparco and any Surveillance service are considered necessary for protection and for the existence of a protected area, and benefits of their action is showed also by the easy contactability of animals.

An exhaustive exploration of the importance of protection in parks and protected area is not possible only by means of questionnaire, but this work could be a starting point which we hope would be useful to reflect all together about what we can do better to ensure the right protection to nature in these years of big changes in the society.

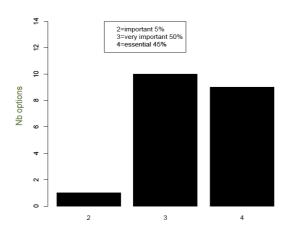
2

#### **Questionnaire A**

This enquire has been presented to operators of Surveillance belonging to different protected area. We have interviewed 22 Guards or Responsible of the service of 20 different protected area.

Parco Naturale Regionale del Marguareis; http://www.parcomarguareis.it/ Parco Naturale Adamello Brenta; http://www.pnab.it/ Parco Orsiera Rocciavrè; http://www.parco-orsiera.it/ Triglav National Park; http://www.tnp.si/national park/ Parco Nazionale Gran Paradiso; www.pngp.it Parco delle Orobie Valtellinesi; http://www.parcorobievalt.com/ Parco Alpi Marittime; http://www.parcoalpimarittime.it/ Parc National du Mercantour; http://www.mercantour.eu/ Riserva Naturale Montagne Duchessa; http://www.riservaduchessa.it/ Parc National de la Vanoise; http://www.parcnational-vanoise.fr/ Parco Prealpi Giulie; http://www.parcoprealpigiulie.it/ Ente Regionale Romanatura; http://romanatura.roma.it/ Parco National des Ecrins; http://www.ecrins-parcnational.fr/ Ente di gestione delle Aree Protette Alpi Cozie; http://www.parchialpicozie.it/ Parco Nazionale Donau-Auen http://www.donauauen.at Austria Parco Nazionale Gesäuse GmbH http://www.nationalpark.co.at Austria Parco Nazionale Hohe Tauern http://www.hohetauern.at/en/ Austria Parco Nazionale Kalkalpen http://www.steyr.info Austria Parco Nazionale Thayatal http://www.np-thayatal.at/en/pages/ Austria Parco Nazionale Bayerischer Wald http://www.nationalpark-bayerischer-wald.de Germany

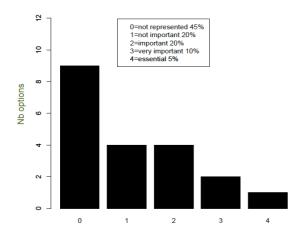
### 1) Which are the tasks you devote the most of your time during your Surveillance service?



#### esploration- territory monitoring

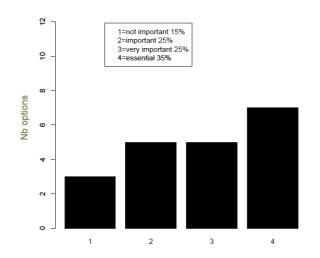
The exploration of the protected territory is considered as a major activities in the surveillance job; this is clearly related to the necessity of a complete awareness of the territory which enable the guardians to detect any potential or ongoing modification.

#### anti-poaching activity



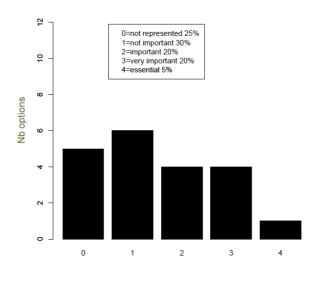
While once anti-poaching techniques and activities were particularly developed and frequently used, today it is less common to think that this is still a real necessity for a protected area. So it is a not represented task in some Parks, while others still devote important part of their time in this activity.

#### enviromental divulgation



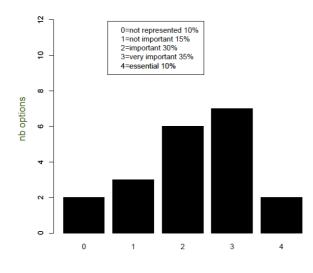
Environmental education is a relatively new task which is already a major duty of the Surveillance service. In fact it is conducted in all the protected area.

#### floristic data collection



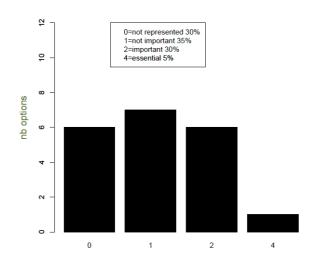
The collection of data on floristic species and theirs distribution is a task conducted in most of the protected area but for the 30% of them is not an important task in the complex of the Surveillance service.

#### animal data collection

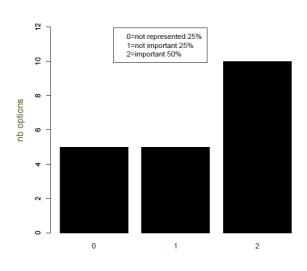


The collection of data relative to the fauna of the protected area is definitively more represented than floristic data collection. It is a relevant task for most of the interviewed Park which are involved in study and monitoring of the different animal species present in their territory.

#### maintenaince trails and structures



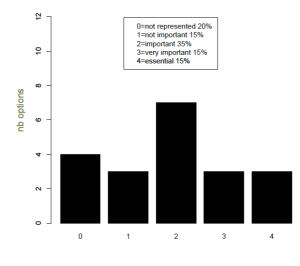
Several, but not all, of the protected area interviewed in this questionnaire have some facilities at high or medium- altitude and probably all of them offer a variety of trails and paths across the territory. The maintenance of these facilities can characterize part of the activities of the Surveillance service. This is partially true in our questionnaire since most of the interviewed declare it is a not represented or not important activity in



#### collaboration to scientific research

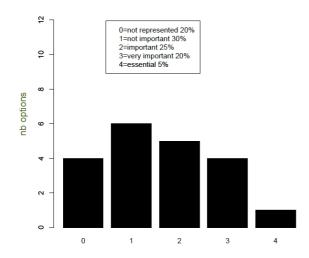
The participation of the Surveillance service to the scientific research is a relevant task for most of the interviewed Park, but in some of them is not represented at all. This can be due to different aim of the protected area or different organization of the scientific research.



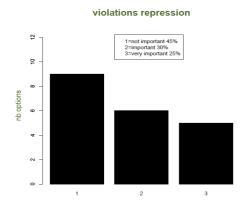


Census of both flora and fauna is overall a well represent activity within the protected area. In the 20% of these census are not conducted but for most of them is an important task.

#### legislative in-deeph analysis



This activity is probably strictly linked to the specific functions of guardians within the protected area and to the numbers and type of cases law encountered. This may explain the variety in the answers we received.



The interesting point in this answers is that for the 45% of the interviewed the repression of violations is not important: it could means that violations are so rare to be considered a not important activity in terms of effort. Anyway for the most this is a very important task in the complex of their role.



엳

2

2

0

1

Nb options

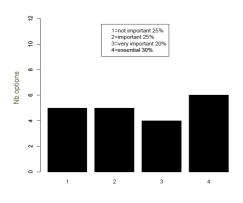
prevention-awareness

Prevention and action of awareness of the public is one of the more important action of the Surveillance service. Still, the 10% of the interviewed declared they do not have this action in their functions.

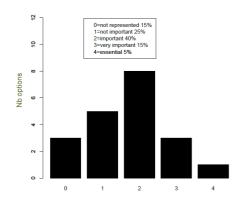


2

3



reporting forms



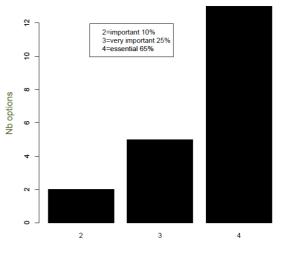
Interacting with local people is amply present in the activity of the Surveillance. This action could be linked to other function as prevention and awareness.

The importance of having a good structure to report all the activity done is may under evolution in different Park, but for those where it is already ongoing it is an important action in the complex of the function.

### 2) In your opinion, which tasks of the Surveillance service are nowadays the most important and useful in the protected areas?

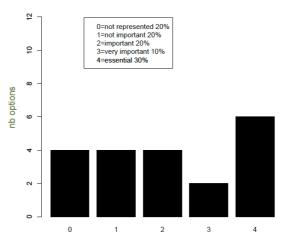
The good knowledge and awareness of territory is believed by all the interviewed a major necessity and task for a good Surveillance service.

#### territory consciousness



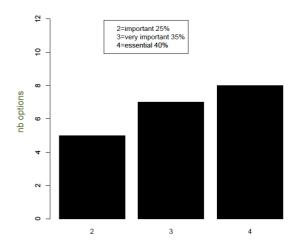
anti-poaching inspections

Specific anti poaching activity is nowadays not represented in 20% of the protected area interviewed and not important for another 20%. For the rest it is still an essential to important task which provide a complete surveillance of the territory.

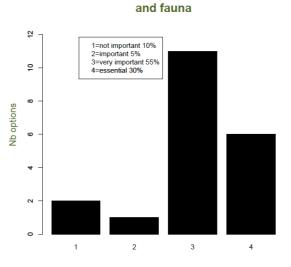


Together with other more 'traditional' tasks, environmental education is believed to be a very important activity fr the role of surveillance.

#### enviromental divulgation

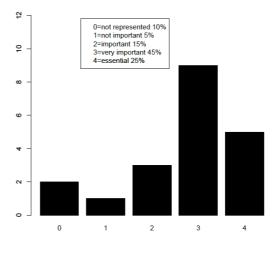


To execute a complete service, a good knowledge of flora and fauna is very important and essential for the majority of the interviewed.



knowledge of flora

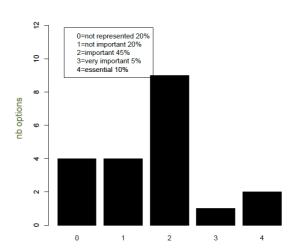
#### upgrade of naturalistic knowledge



#### Linked with the good knowledge of flora and fauna a regular upgrade of naturalistic awareness is generally important for most of the interviewed

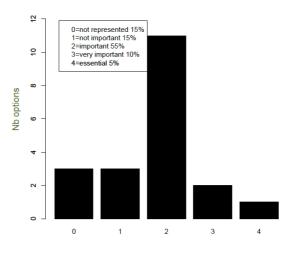
The regular maintenance of structures and trails present in the protected territory, even if not conducted in the 20% of the areas, is amply retained as important by the most of the interviewed person.

#### maintenaince of structures and trails

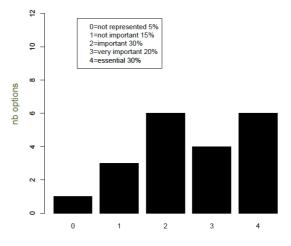


The collaboration of the Surveillance to the scientific research is believed to be important, but not essential, by the most of the operators of the Surveillance; it is not represented in the 15% of the protected areas.

#### collaboration to scientific research

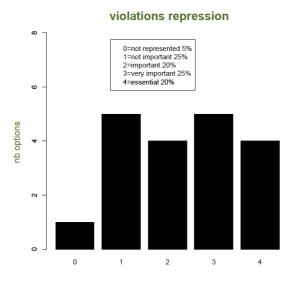


legislative in-deepth analysis



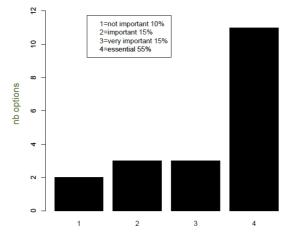
Regular and depth studies of the different aspects of legislations relative to protected areas is an important to essential task of the operator of Surveillance. This is an interesting point, which highlights the importance of having well prepared Guardians on different aspects.

Answers to this question are interesting since apparently it seems that repression of different types of violations linked to protected area is not an important or not represented task. Anyway for the most it is an important to essential task in order to have a complete Surveillance service.

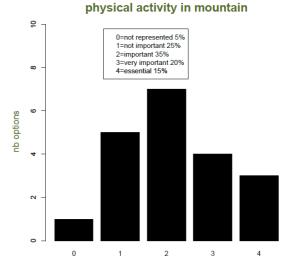


#### prevention and awareness

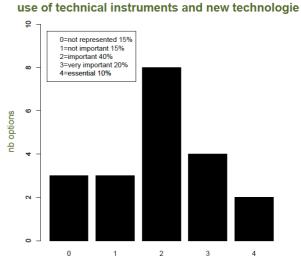
Prevention and awareness of visitors to the naturalistic patrimony of a protected area is considered an essential task by the most of the operators of the Surveillance.



An important part of the life of a Guardian can be represented by the physical activity necessary to the execution of the different tasks. In fact this is considered as an important to essential part of the job.

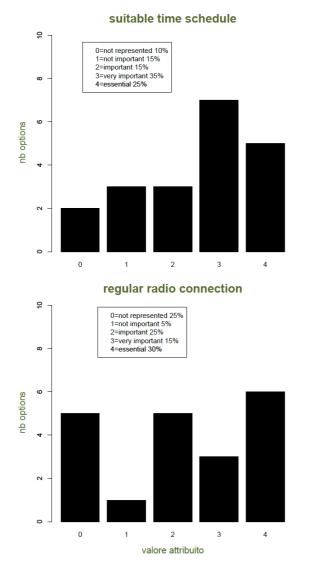


was of to shall in strumouts and new to shall are



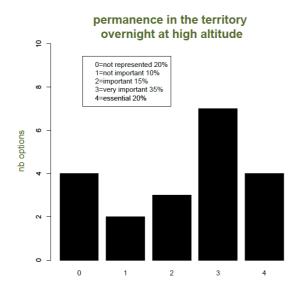
With the evolution of technology the use of new instruments as support of the job is important, as shown by the answers of the interviewed. In fact 40% of them considered important using new technology.

## 3) In your opinion which are the most significant elements characterizing the Surveillance service in your Park?

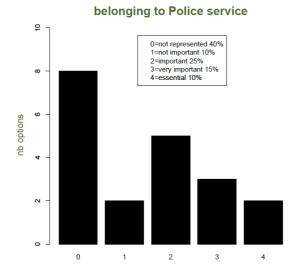


According to the answers, a focused and suitable time schedule is an important to essential element of most of the Surveillance services interviewed in this work. The time schedule allows operators to execute a complete service in all their tasks.

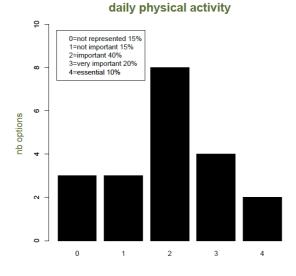
Another very important characteristic of the protection is the possibility to have regular radio connections between operators. This is believed to be essential for the 30% of the interviewed



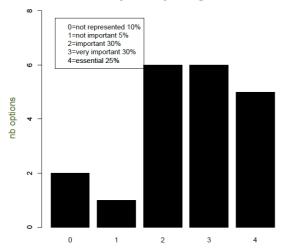
Remaining overnight at high altitude may allow the operators to spend more days consecutively over the protected territory. This is obviously an advantage and it is declared as an important to essential characteristics of the service by the most of the operators interviewed.



Most of the protected areas present in this work have no relation between their Guardians and the Police. For those who the Surveillance operators belong to the Police service this is an important characteristics. It would interesting to explore the differences between results obtained by the two different types of Service.

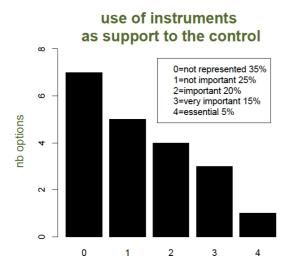


Daily physical activity characterize the job of the most of the operators interviewed in this exploration. In fact it is declared as important for the 40% of them.



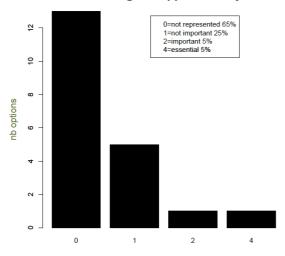
autonomy in the job organization

Having the possibility to organize the job with a large autonomy is another very important characteristic of most of the protected areas present in this job.



According to this exploration the use of instruments as support to the control of the territory is not represented in most of the protected areas, and it is not an important characteristic for the most.

use of dog as support of the job

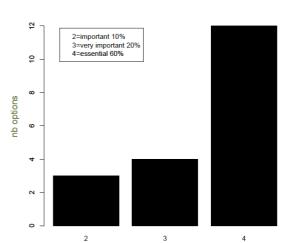


Having a dog as support to the Surveillance seems to be rare, and not important for the most.

# 7) In the next 5-10 years which surveillance actions should have the priority in your protected area?

14

An essential action will remain the regular control of the territory and thus a good awareness of the whole protected area. This point is common to all the operators interviewed in this exploration.



#### regular control of the territory

In general specific anti poaching activity is believed to remain important to essential by the most of the interviewed. The 25% of them declared this activity as not represented in the area of work.

0=not represented 25% 1=not important 10% 2=important 15% 3=very important 25% 4=essential 20% 9 S 0 2 0 1 2 3 enviromental divulgation 9 2=important 15% 3=very important 45% 4=essential 35% 9 œ ø 4 2 0 2 3 4 census of flora and fauna 9 0=not represented 10% 1=not important 5% 2=important 10% 3=very important 45% 4=essential 25% œ ഗ nb options 4 2 \_ 0 1 2 3 4 cultural formation 9 0=not represented 10% 1=not important 10% 2=important 15% 3=very important 40% 4=essential 20% œ

specific anti-poaching activity

nb options

Cultural upgrade and formation is important to essential for the most of the operators.

Similarly to a regular control of the territory also environmental divulgation is retained to be an important to essential activity by all the participants of this enquire.

Census of flora and fauna species is again retained as an important task in the future by the most of the interviewed.

hb options

2

0

0

1

2

3

4

repression of violations

9 1=not important 25% 2=important 20% Interestingly the 25% of the operators declare the 3=very important 30% 4=essential 20% repression of violations as not important for the future. It is maybe linked to the scarcity of violations in their protected area. By the way the most declared this as an ø 2

1

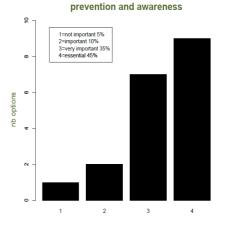
0

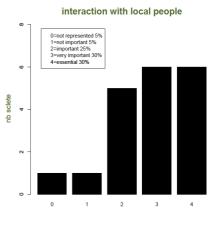


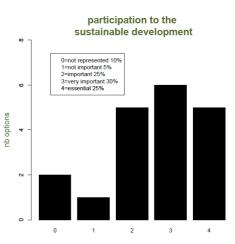
3

4

2







Prevention and awareness are essential and very important for the high majority of the interviewed.

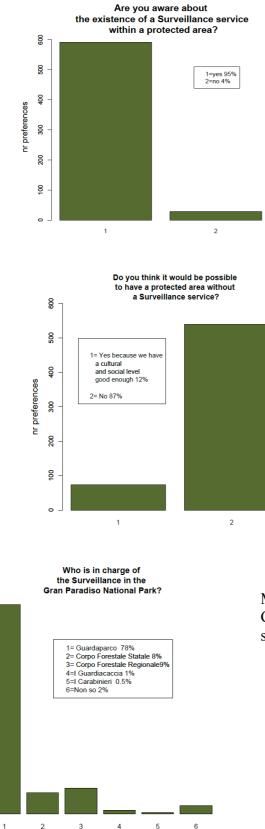
important to essential task also for the future.

The interaction with the local people remain, as it is declared to be in the present, an important part of the Surveillance service life.

In these years sustainable development is more and more present in our life, and the participation of the Surveillance service is believed to be a very important task in the future.

#### **Questionnaire B**

The second part of this exploration has been carried out by the Guardians of the Gran Paradiso National Park by presenting a short questionnaire to tourists and visitors encountered during their Surveillance service at high altitude, in all the five valleys of the Park.



50

<del>§</del>

300

200

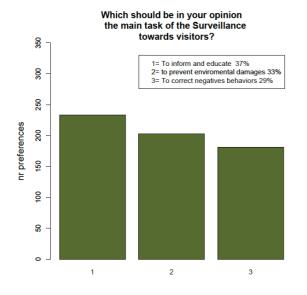
6

nr preferences

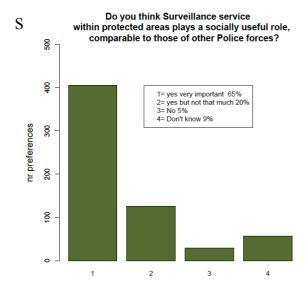
Most of the visitors of the Gran Paradiso National Park are aware about the existence of Surveillance in the Parks.

Almost all the interviewed believed it would be not possible to have a protected area without Surveillance. Thus protection became a main characteristics and necessity for any protected area.

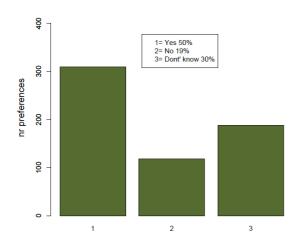
Most of the visitors are also aware of the special feature of the Gran Paradiso National Park, having a specific Surveillance service constituted by "Guadaparco".



There is a general homogeneity in the answers to this question, where the 3 options are more or less equally divided.



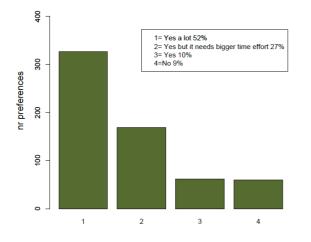
Do you think poaching is a problem within protected area?



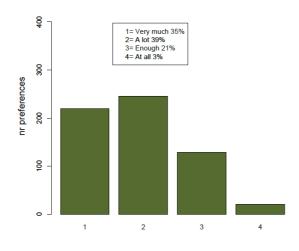
urveillance service is seen as a positive role within its context by the most of the interviewed.

Poaching is believed to be a problem for the 50% of the interviewed.

#### Do you consider effective the action of Guardiaparco within the Gran Paradiso National Park to prevent poaching?

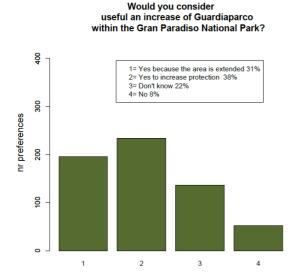


In your opinion, how much influence have had the regular protection of the Guardaparco on the contactability of fauna?



Guardaparco are considered to have a positive and effective action in the Park; it is interesting to note that 27% of the people believed that much time is needed to increase their efficiency

The big majority of people think that contactabily of fauna within the Gran Paradiso National Park has been favoured by the regular protection of the Guardiaparco.



Finally the most of the people consider it would be useful to increase the number of Guardaparco within the Park. This is a clear sign of the positive and necessary role people entrust to the Surveillance in the protected area

#### **General conclusion**

19

First of all we conclude that active protection, trough its different tasks (monitor of the area, census of flora and fauna, interaction with visitors,..) is considered as essential by both operators of Surveillance (which consider these as basic actions for a good service) and visitors of Parks (which consider necessary protection to have a protected area). Thus this seems to be the right and effective way to protect nature.

Some features of Surveillance services are shared by all the different Parks and this means that protection imply a very good knowledge (for example) of the area and a good base of naturalistic culture. Others tasks, such for example anti poaching activity or repression of violations, are a bit less common, even if most of Parks shared also these. Nowadays Guards have in all the protected area an important educational function too, which imply interaction with local people, visitors and general awareness of the public. Most of the Parks also declare a collaboration of the Surveillance with the scientific research which for example during census, became one of the main tasks of Guards. The effectiveness of the active protection is guaranteed by some specific characteristic of the different Parks, for example the suitable time schedule, or the existence of structures at high altitude. All these are part of the articulated organization withstanding the active protection and should be preserved as an essential part of it.

Finally protection walks together with education and Guards are principal actors in this relationship. It is then logical to think that the figure of the Guard may goes to new challenge and requests, so that a reflection about its importance and modernity (better said the right mix between past and present) could be useful.

It is very important to stress out the importance given by the most of the person interviewed in the second questionnaire to the role of Guards and of Surveillance in general within the protected area. These answers, even if potentially biased by the location where the survey has been conducted, revealed the public opinion of the good influence and the need for this type of protection, with a clear tendency to favour an increase in protection.

#### Where do we go from here

This exploration does not want to be a final document but a starting one. We suggest that new meeting, new collaborations even new explorations could start to understand, discuss and improve the role of Surveillance within protected area.

### Acknowledgement

We thanks all the Guards and Responsible of Surveillance who kindly participated to this exploration and to all the Guardaparco of the PNGP for their diligence in presenting the questionnaire to tourists.