

# Manual 12

Manual Series of EUROPARC-Spain

## Guide to Good Practices for Holding **Mountain Races** in Protected Natural Areas





**Guide to Good Practices for Holding Mountain Races  
in Protected Natural Areas**

## EUROPARC-Spain, 2016

### Guide to Good Practices for Holding Mountain Races in Protected Natural Areas

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# Manual 12

Manual Series of EUROPARC-Spain

## Guide to Good Practices for Holding **Mountain Races** in Protected Natural Areas



Fundación Interuniversitaria

**Fernando González Bernáldez**

PARA LOS ESPACIOS NATURALES



Photo by: Cano\_Fotosports.

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## Executive Summary

The popularization of mountain races has grown so rapidly that it may imperil the conservation of some of the natural areas they run through. The tendency to carry out these activities in attractive landscapes has, on many occasions, led to the use of protected natural areas as the setting. The authorizations granted by the environmental administrations adapted to the different proposals submitted as no task of common reflection had been undertaken.

For all these reasons, the administrative bodies currently managing natural areas, the sports federations and other collectives broadly coincide on the need to regulate these events with the aim of maintaining both the benefits this sporting activity produces and the conservation of the environment in which these events take place, and which constitutes the fundamental purpose of their existence as protected areas. In this respect, EUROPARC-Spain has noted the concern this phenomenon is producing among its members, precisely those responsible for managing these protected areas. The Spanish Federation of Mountain Sports and Climbing (FEDME) also expressed its concern about the negative repercussions these events might be triggering in the Spanish mountains. Finally, at its meeting in June, 2015, the Assembly of EUROPARC-Spain proposed the creation of a working party to tackle this problem. This group received funding from the Barcelona Provincial Council and the Regional Government of the Basque Country, and also counted on the collaboration of the FEDME.

The aims of this working party were:

- To analyse the current dimensions of the phenomenon of mountain racing in protected natural areas in Spain.
- To identify initiatives, already under way, related to the regulation, monitoring and evaluation of the possible environmental and economic impacts these races produce.
- To draw up a guide to good environmental practice for holding mountain races in protected areas.

According to the data provided by the environmental administrations belonging to EUROPARC-Spain, protected natural areas host over 1,100 mountain races and other organized collective activities in which the participants go on foot through a route decided by the organization (rambles, hikes, marathons, cross-country races, mountain triathlon/duathlon) and the number of participants in these events exceeds 246,000. There are certainly many more events in our natural spaces, and the number of participants is much greater, but a percentage of these are not recorded or counted by the environmental administrations.

In this context the key words are planning and regulation. This is precisely the purpose of this guide, not to ban mountain races but to make holding them compatible with the conservation of the heritage values of the areas the events take place in and applying for the purpose objective criteria for monitoring the events as well as a set of conditions which, should it be necessary, might be restrictive when it comes to authorizing events of this kind.

The purpose of this document is to provide the organizing entities, environmental administrations and participants in these events with a set of guiding criteria to drive the growth of this kind of event and establish the bases for suitable regulation of these sports events through recommendations, application of rigorous criteria and timely constraints that, taken together, will make it possible to:

- Make the holding of mountain races and other sporting activities compatible with the conservation of the heritage values of the protected areas.
- Contribute to the conservation and dissemination of the objectives and values of the protected areas.
- Make the organizers, participants and those accompanying them, the local population and society in general aware of the importance of the protected areas as places that are essential for our health and quality of life, because they provide us with a whole range of environmental services (drinking water, clean air, regulation of climate change, control of floods and erosion, etc.), as well as cultural and spiritual services.
- Serve as a basic requirement for the approval of the regulations governing these sporting events in protected natural areas (PORN, PRUG, public usage plans and other documents).
- Minimize the potential impacts on the natural and cultural resources of the protected areas where these event take place. Also, assess the possibility of not authorizing an event when its impacts are ascertained to be incompatible with the conservation of the resources (zero alternative).
- Help achieve a more satisfactory experience for practitioners and organizers of these events in protected areas.
- Contribute to making the holding of sporting events in a protected natural setting being seen as an added value, in terms of involvement in policies pertaining to the rural economy and conservation and through association with the image of a nature reserve or national park.
- Ensure compatibility between holding these events and the legitimate exercise of ownership rights, economic activities and the enjoyment of other users.
- Take advantage of this movement of people and resources so that it has positive repercussions for the sustainable development of local populations linked to these territories. This will allow for greater collaboration between practitioners of these sports and the local population.





Photo by: Cano\_Fotosports.

# 1 Introduction

Since the beginning of time, human beings have always run, for different reasons: the need to improve hunting techniques, travel about, bear news, enjoy the effort. The first Olympic Games date from 776 BC, and the events held included the pentathlon, which, among other disciplines, involved cross-country running. At that time, athletes shared, in addition to an important set of values like cultivating their bodies, a special psychological preparation for the competition as well as respect for the gods. Roman civilization, from which the term “sport” derives, attributed so much importance to physical activity that phrases such as “*mens sana in corpore sano*” have come down to the present day. The physical and mental benefits of sport have been widely acknowledged throughout history, and simply practising a sport has meant that every day more people from different cultures, races and ages practise it in all kinds of places.

According to the *Survey of Sporting Habits in Spain 2015* (Ministry of Education, Culture and Sport, 2015), more than half of the population aged 15 years or older (53.5%) practised sport in the last year. Among those who practised sport, a clear preference can be seen for activities carried out in the open air. The kinds of sport most often practised are not football, basketball or tennis but rather cycling (38.7%), swimming (38.5%), hiking and mountaineering (31.9%) and foot races (30.4%). This trend towards carrying out sport in the open air re-directs the promotion of sports facilities towards those that provide sport in a natural setting (hiking, racing, cycling) and will improve the health of the population, saving costs for the health system. Along the same lines, interest in competitions held in the open air and, more specifically, in the natural environment, has increased. Since 2000, the number of mountain races held in Spain has continued to grow. This phenomenon is viewed favourably by the tourism and rural development administrations and by town and district councils as these races have been useful in highlighting overlooked areas which, thanks to these events, have now regained a certain dynamism through a sporting activity that becomes a unique tourism event, spreads the name of the territory area and leads the inhabitants themselves to rediscover it. There is no doubt that mountain races drive rural tourism: as well as mobilizing the organizers and runners, they also attract a significant number of spectators (many of them relatives), who move around the country in order to follow the events. On occasion, they even become permanent training circuits.

### **Trend in the development of mountain racing in recent years**

- Choice of venues that are ever more spectacular, natural, remote, ...
- Increased number of events, greater diversity and larger numbers of participants.
- Longer and more difficult events: these increase participants' ability to explore the territory further, stay for longer and generate more impacts.
- Increase in the involvement of private initiative in the organization of the events (business opportunities).
- The administrations and other bodies, including the FEDME, have begun to regulate and evaluate this phenomenon by drawing up criteria, terms and conditions, surveys, actions, etc., intended to structure and improve the holding of these events
- Interest on the part of the local administrations in holding such events because of their economic repercussions and because they make their venues better known, thus framing them in the context of rural development.

According to the most recent data available, around 1,900 mountain races, in their multiple variants (end-to-end races, Trails, Ultra trails, Vertical Km, etc.) are held in Spain. A significant number of these take place in protected areas. For example, Tenerife Island Council recorded around 60 sporting events in protected areas in 2014, of which 43 were mountain races. Some, like the Tenerife Blue Trail, covering a good part of the Teide National Park, have more than 2,000 participants. In the Sierra de Guadarrama National Park alone (only declared a National Park in 2013), more than 40 races were run in 2014. The average number of participants in these races approaches 500.

It is calculated that around 700,000 people run annually through unique natural spaces. This gives an idea of the importance of this phenomenon. The Spanish Federation of Mountain Sports and Climbing (FEDME), by itself or through the regional federations that belong to it, oversees 23% of these races. This means that 77% are organized by town councils, associations, business, etc. which do not fall within sports structures but still have an interest in holding these meetings (photo 1).

However, it should also be considered that the popularity of these races has grown so much that it is endangering the conservation of some of the natural areas they are held in, since the tendency to hold events in ever more attractive landscapes has on many occasions led to protected natural areas being chosen as their venues. The authorizations granted by the environmental administrations were based on widely differing proposals since there was no prior effort at a shared reflection.





**Photo 1.** The number of mountain races and the number of participants in these events have risen significantly in recent years.  
Photo by: Cano\_Fotosports.

For all these reasons, the administrative bodies currently managing natural areas and the sports federations broadly coincide on the need to regulate these events with the aim of maintaining both the benefits this sporting activity produces and the conservation of the environment in which these events take place, and which constitutes the fundamental purpose of their existence as protected areas. In this respect, EUROPARC-Spain has noted the concern this phenomenon is producing among its members, precisely those responsible for managing these protected areas. The FEDME also expressed its concern about the negative repercussions these events might be triggering in the Spanish mountains. Thus, at the CIMA-2015 International Mountaineering Congress organized by FEDME, the idea arose of creating a working party on mountain racing in protected areas, and responding to the “*Challenges of mountaineering in the 21st century*”, enshrined in the conclusions of the said conference.

Finally, at its meeting in June, 2015, the Assembly of EUROPARC-Spain proposed the creation of a EUROPARC-Spain working party to tackle this problem. This group received funding from the Barcelona Provincial Council and the Regional Government of the Basque Country, and also counted on the collaboration of the FEDME.

The **aims** of this working party were:

- **To analyse the current dimensions** of the phenomenon of mountain racing in protected natural areas in Spain.
- **To identify initiatives**, already under way, related to the regulation, monitoring and evaluation of the possible environmental and economic impacts these races produce.
- **To draw up a guide** to good environmental practice for holding mountain races in protected areas.

### 1.1. Concept of mountain racing applied in this good practice guide

The Spanish Federation of Mountain Sports and Climbing (FEDME) defines mountain racing in article 1 of its regulations as: a sporting speciality embodied through races in low, medium and high mountains, whether in summer or winter, with the route being followed on foot in the shortest time possible and the greatest respect for the natural environment.

Mountain races are included in article 3 of the FEDME Statutes approved by the Higher Council for Sport and published in the Official State Gazette (BOE) on November 4th, 2013 (latest version).

In other FEDME documentation, other characteristics are added:

- Races will have a minimum of 21 km.
- The minimum climb will be 1,000 metres in competitions of less than 34 km.
- The minimum climb will be 1,500 metres in competitions of more than 34 km.
- The race may have only 10% of its course on tarmac, pavement or cement.
- The race may only have 50% of its course on a wide trail (transitable by vehicles).

However, the reality is that the types and variety of events and physical or sporting activities that take place in protected natural areas are much broader than those included in this definition. Moreover, not all mountain races fall under the official classification of “Mountain Racing” competitions, nor do they have the backing and organizational professionalism of FEDME. For this reason, it is deemed necessary to **extend this concept** to the objectives of this guide, so that its criteria may serve as guidance for applying them to ***any kind of organized collective activity taking place in protected natural areas in which the participants go on foot along a route fixed by the organization, regardless of the distance or difficulty due to the slope of the route.*** This will include, in addition to the races the FEDME takes into consideration (end-to-end races through mountains, vertical races up mountains, Ultra trails), rambles, hikes, marathons, cross-country, mountain triathlon/duathlon and other sporting specialities. In this way orienteering events and adventure raids with undefined routes are excluded, although the importance of knowing their impact on the natural environment should be known.

## 1.2. Why produce a guide to good environmental practice?

### Principles inspiring the guide

Although the first people to go into and explore the mountain spaces, through narrow pathways and local routes were explorers and scientists, sporting practices in these areas, known today as mountaineering, gradually became established, and attracted more supporters wishing to overcome new physical challenges and know their history, their culture, and grow closer to the rural population.

The connection between mountaineering, down the decades, and the conservation of these enclaves and also its contribution to the declaration of certain mountains as protected natural area, are today recognized by everyone. However, it should be remembered that what justifies the special protection of specific natural spaces is their emblematic character, because they are home to areas identified as the most representative and best preserved of our Nature and frequently contain landscapes, ecosystems and endangered species of high environmental value. Any activity which takes place inside these, including mountain races, must ensure their conservation. The prevention or mitigation of impacts is crucial for the conservation of these protected areas.

Each category or concept of protected area entails conservation objectives and a set of regulations and measures to achieve them. In the specific case of national parks, mountain races would be considered as extraordinary, since they are not specifically regulated in the Network Master Plan. In this context the key words are **planning** and **regulation**. This is precisely the purpose of this guide, not to ban mountain races but just the opposite, to make holding them compatible with the conservation of the heritage values of the areas the events take place in and applying for the purpose objective criteria for monitoring the events as well as a set of conditions which, should it be necessary, might be restrictive when it comes to authorizing events of this kind.

It is generally accepted that protected natural areas fulfil important functions. They maintain biological diversity, give a place to human communities with traditional cultures, they protect quality landscapes, conserve areas that produce water and fertile soils, and are a refuge for a multitude of animal and plant species. But also from a social point of view, they have been shown to be fundamental enclaves for the relaxation of the body and the mind, enriching our health, spirit and quality of life. Spaces for leisure, relaxation, culture and sport, all activities included in these services rendered to society by these protected areas.

During recent decades the number of people who flock to protected areas to carry out all kinds of activity has risen considerably (according to recent estimates the protected areas of the planet receive 8 billion visitors a year, Balmfor et al., 2015) and sports activities are increasingly important in these areas. In the specific case

of mountain races, for some years now they have become a massive phenomenon which might be having a negative impact on these unique enclaves (photo 2). For example, the Mont Blanc Ultra Trail brings together 7,000 runners and 30,000 spectators every year.

The impacts may vary considerably, and the number of participants is not always the main indicator to consider. Other factors must also be borne in mind in estimating the magnitude of these impacts: frequency of use, type of activity, types and degree of awareness of those participating in the activity, environmental characteristics (climate, altitude, gradient, conditions and type of substrate, plant and animal communities, sensitive elements), seasonality, spatial and temporal distribution of use, the administration's management abilities (resources, staff, regulatory instruments), etc. However, we must not forget that these spaces were designated as such with the specific aim of conserving their natural and cultural resources (photo 3). For all these reasons, the purpose of this document is to provide the organizing entities, environmental administrations and participants in these events with a set of guiding criteria to drive the growth of this kind of event and establish the bases for suitable regulation of these sports events through recommendations, application of rigorous criteria and timely constraints that, taken together, will make it possible to:

- Make the holding of mountain races and other sporting activities compatible with the conservation of the heritage values of the protected areas.
- Contribute to the conservation and dissemination of the objectives and values of the protected areas.
- Make the organizers, participants and those accompanying them, the local population and society in general aware of the importance of the protected areas as places that are essential for our health and quality of life, because they provide us with a whole range of environmental services (drinking water, clean air, regulation of climate change, control of floods and erosion, etc.), as well as cultural and spiritual services.
- Serve as a basic requirement for the approval of the regulations governing these sporting events in protected natural areas (PORN, PRUG, public usage plans and other documents).
- Minimize the potential impacts on the natural and cultural resources of the protected areas where these events take place. Also, assess the possibility of not authorizing an event when its impacts are ascertained to be incompatible with the conservation of the resources (zero alternative).
- Help achieve a more satisfactory experience for practitioners and organizers of these events in protected areas.
- Contribute to making the holding of sporting events in a protected natural setting being seen as an added value, in terms of involvement in policies pertaining to



**Photo 2.** Massification of a high mountain path in the course of an event. Photo by: M. Oñorbe.

the rural economy and conservation and through association with the image of a nature reserve or national park.

- Ensure compatibility between holding these events and the legitimate exercise of ownership rights, economic activities and the enjoyment of other users.
- Take advantage of this movement of people and resources so that it has positive repercussions for the sustainable development of local populations linked to these territories. This will allow for greater collaboration between practitioners of these sports and the local population.

### **1.3. Mountain races in protected natural areas of Spain**

#### **1.3.1. General information about mountain races and other events**

This analysis has been made with information provided by 20 environmental administrations belonging to EUROPARC-Spain, who have sent information about more than 1,800 sports events encompassing all kinds of disciplines. However,





**Photo 3.** Parc Nacional de Aigüestortes i Estany de Sant Maurici (Catalonia). Photo by: J. Gómez-Limón.

many of these events are not analysed in this document (BTT races, cani cross, pilgrimages, adventure raids, races on snow) and so have not been included since their characteristics do not match the definition included in the guide nor meet its objectives. For the same reason, urban races have not been included either. Therefore, the only data to be analysed will pertain to **mountain races, hikes and other collective organized events following a specified route established in advance, in which participants go on foot**. This category encompasses different disciplines, like trails, end-to-end races, ultra trails, half marathons, marathons, races, cross-country, vertical kilometres, rambles, hikes, etc. (Table 1). The allocation of different disciplines to the events being analysed has been done with attention to the commercial names of the event, and if various disciplines coincide in one meeting (trail, marathon, vertical kilometre), it has been given the name of the discipline involving the greatest distance.

As can be seen in Table 1, the total number of events exceeds 1,100. It is certain that many more events are held in our natural areas, but there is a percentage that environmental administrations do not record or count, because the organizers, perhaps due to ignorance, do not make contact with the administrations or request the appropriate permits. These events therefore go unrecorded. There are also cases of some 'pirate' events that take place under the radar and without receiving the corresponding authorization. Generally speaking, there is scant systematization in data

**Table 1. Summary of general data on number of races and other events or sports disciplines, held in Spain's natural areas.**

Name of the race or discipline <sup>1</sup>	Total n° of races	Total n° of races in protected areas	Total n° of races outside protected areas	Total n° of races in protected areas with data
Trail	459	411	48	327
Marathon	45	41	4	38
Media Marathon	24	13	11	8
Race	183	147	36	106
Cross country	33	27	6	25
Vertical kilometre	35	32	3	28
Hiking	324	313	11	160
<b>Total</b>	<b>1.103</b>	<b>984</b>	<b>119</b>	<b>692</b>

Name of the race or discipline <sup>1</sup>	% of races in protected areas with data <sup>2</sup>	N° of participants in protected areas	Mean n° of participants per race in protected areas
Trail	79	124,584	381
Marathon	93	20,691	545
Media Marathon	62	2,350	294
Race	72	35,607	335
Cross country	93	6,804	272
Vertical kilometre	88	6,860	245
Hiking	51	49,570	309
<b>Total</b>	<b>76</b>	<b>246,466</b>	<b>356</b>

**1. Trail** (called "Ultra" by the FEDME): distances above 42 km through mountains; **marathon**: distance of 42 km through mountains; **half marathon**: distance of 22 km through mountains; **race**: maximum distance of 10 to 12 km through forests or tarmacked trails; **cross country**: distances less than 10 to 12 km though mountains; **vertical kilometre**: competition with a positive climb of 1,000 metres from start and finish (+/- 5% tolerance) through steep mountains, with courses not exceeding 5 kilometres; **hiking**: unlimited distances, walking.

**2.** Number of races, expressed as a percentage, which provide data on the number of participants.

**Source:** EUROPARC-Spain.

Data for 2015 provided by environmental administrations that belong to EUROPARC-Spain.

collection by environmental administrations, when it comes to listing the mountain races held in natural areas. Furthermore, it should be borne in mind that:

- There is no data available for the region of La Rioja.
- In the case of the Canary Islands, the data come from only three islands: Tenerife, Gran Canaria and La Gomera.
- For the Balearic Islands, the data pertains to the islands of Majorca and Minorca.
- Some administrations have provided data for events that have taken place in protected areas with active management (parks, reserves, landscapes, monuments), which frequently do not include spaces in the Natura 2000 Network, and might imply only 50% of the total number of events held.

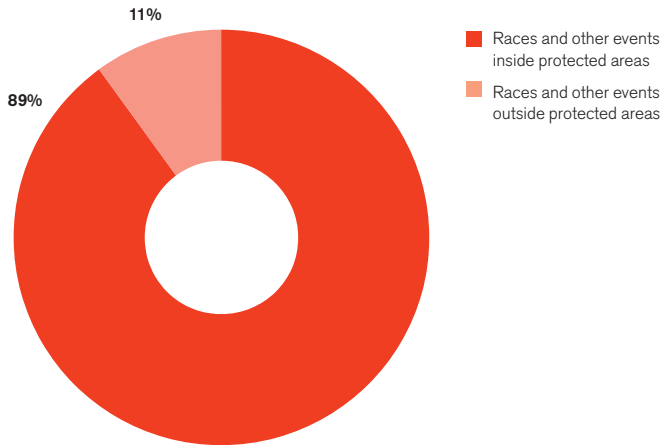
If we consider all these implications and some recently published data on mountain racing in Spain, we can state that the total number of sports events held in protected natural areas in Spain comes close to 1,900 per year (Farias et al., 2016). Extrapolating these numbers to the data provided by the members of EUROPARC-Spain with respect to the average number of participants per event, we think the total number of runners moving through natural areas would be close to 700,000 a year.

Taking as a basis the data provided by the members of EUROPARC-Spain, a high number of events recorded by the administrations (984) are held inside protected areas. We might be talking about 89% of the total number of events (Figure 1), with a total number of participants of, at least, 246,500. However, given that no data are provided in 24% of cases and bearing in mind the considerations mentioned above, we could estimate 700,000 participants a year.

After analysing the data and verifying that the number of events held inside protected areas is much higher than those held outside, all the following data provided below will correspond to authorized events held in protected areas, for which complete data are available (kind of event, date when held, number of participants, organising entity, etc.).



**Figure 1. Number of races and other events inside and outside protected areas (including spaces belonging to the Natura 2000 Network).**



**Source:** EUROPARC-Spain.  
Data for 2015 provided by the environmental administrations belonging to EUROPARC-Spain.

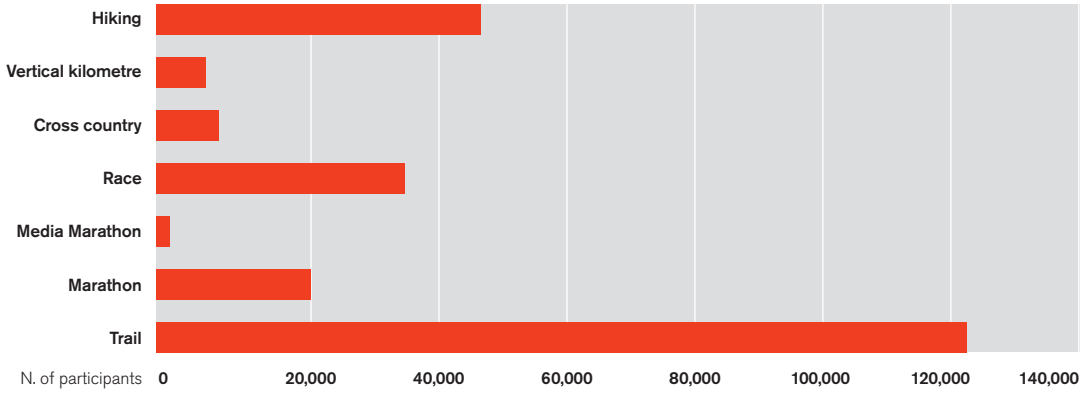
### **Total number of participants in the different disciplines considered in this guide**

If we analyse the total number of participants per discipline, we observe that 'trail' has the most runners, with more than 124,000, followed, though not closely, by "hiking", with more than 49,000 (Figure 2).

### **Mean number of participants by discipline**

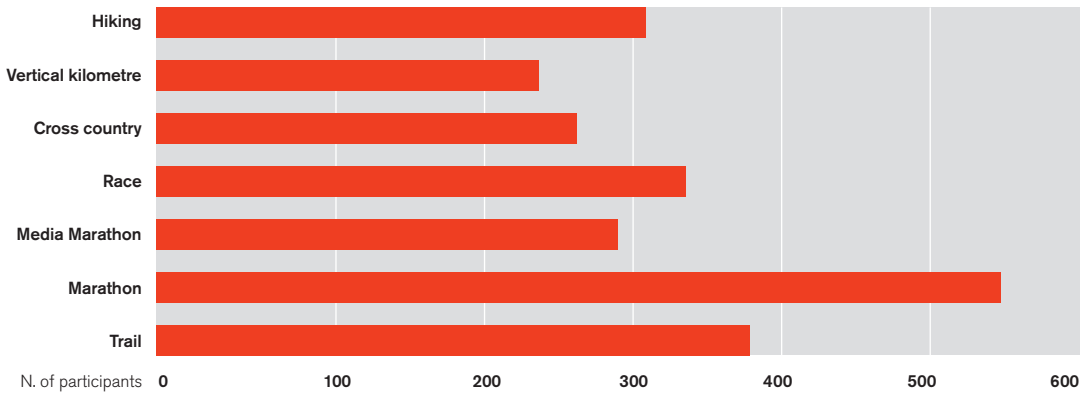
As regards the mean number of participants, in each of the different kinds of events, the marathon stands out, with an average of around 545 participants per race, followed by trail (381) and races (335) (Figure 3).

**Figure 2. Number of participants by discipline inside protected areas.**



**Source:** EUROPARC-Spain.  
Data from 2015 provided by the environmental administrations belonging to EUROPARC-Spain.

**Figure 3. Mean number of participants by discipline (inside protected areas).**

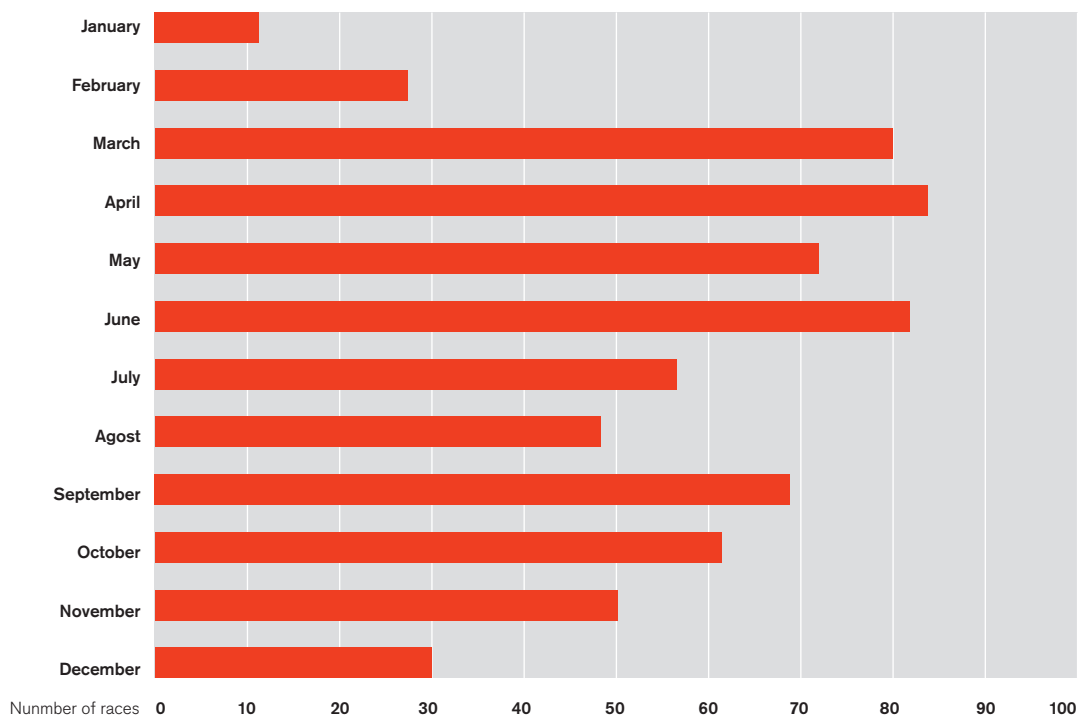


**Source:** EUROPARC-Spain.  
Data from 2015 provided by the environmental administrations belonging to EUROPARC-Spain.

### Distribution of events throughout the year

Another interesting aspect for analysis is how these races are distributed throughout the year. This will have a significantly influence on the natural resources of the protected area. As is well known, spring and the beginning of summer include the months in which the fauna, mainly certain species of birds of prey that are unique or endangered, are in the middle of their breeding season. When runners pass close by their nesting sites this may endanger the viability of the brood and future chicks. The flora may also be affected, since these periods coincide with the moments of

**Figure 4. Number of events held in the different months of the year inside protected areas.**



**Source:** EUROPARC-Spain.  
Data from 2015 provided by the environmental administrations belonging to EUROPARC-Spain.

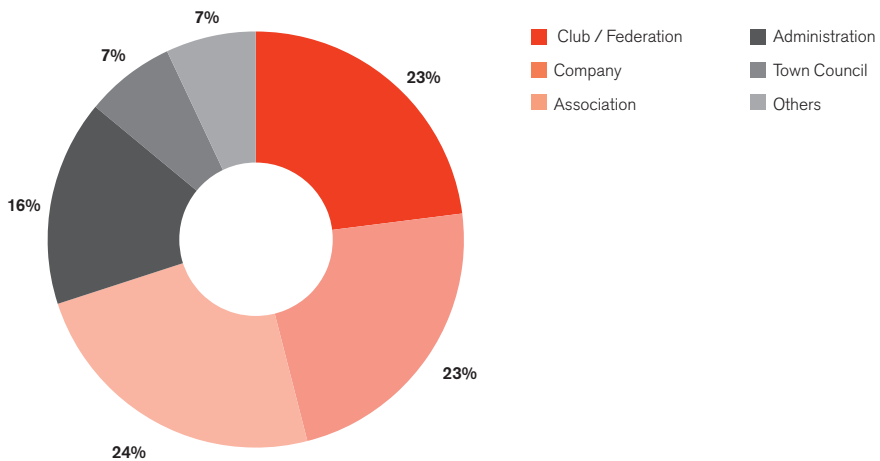
greatest flowering and growth. Because of this, it is recommended to programme events bearing in mind the periods of the year with less or no impact on the flora and fauna. Generally speaking, in Spain's peninsular and insular territories, this period of time is between August and February, but it will vary for each space depending on the biological cycles and their geographical location.

According to the data obtained, most of the events in protected areas are concentrated in spring and the beginning of summer, the months from March to June. These months concentrate a total of 321 events, which means 47% of the total (Figure 4). These results would be in keeping with other studies that have been carried out, which also analyse the holding of races in natural spaces throughout the different months of the year (Farias et al. 2016).

### Who organizes events?

Another equally interesting question concerns who organizes these events. As can be seen in Figure 5, 24% are organized by town councils, another 24% by sports clubs and federations, 23% by associations, 16% by companies and 7% by other local or regional administrations (island councils, provincial councils). The heading “others” represents 7% of the events, and includes NGOs, private individuals, etc.

**Figure 5. Breakdown of types of organizers for races and other events inside protected natural areas.**



Source: EUROPARC-Spain.

Data from 2015 provided by the environmental administrations belonging to EUROPARC-Spain.

### 1.3.2. Mountain races and other events: situation by region

Catalonia is the community where the greatest number of events were held during 2015, with a total of 360, representing 35% of the total number of events held in Spain. It is followed by Andalusia, with 143 events (14%). Other regions appear further behind: Madrid Region (97), the Basque Country (87), Aragon (65) or the Valencian Community with 64 events (Table 2).

We can try to analyse why more events take place in some regions than in others. This might have to do with the population. The three regions with the largest number of inhabitants, and also where most events are held, are Andalusia, Catalonia and Madrid, with 8.3, 7.5 and 6.4 million, respectively. Catalonia, however, holds more than double the number of events as in Andalusia, despite having almost a million

inhabitant less, although it is true to say that most of the events held in this region take place in peri-urban areas in the province of Barcelona (5.5 million inhabitants) very close to densely populated cities, as we shall confirm by analysing the data shown in Figure 8. In this case, we can see how proximity a large urban centre with several million inhabitants has a direct influence on the number of events held and on the number of participants in these events, almost 70,000 participants in Catalonia, double the figure for Andalusia. It is also true that there could be other variables that might be influencing this datum, such as, for instance, the percentage of mountainous territory, the number and surface area of protected areas, the custom of practising sports in nature or the existence of emblematic protected areas (Sierra Nevada, Cazorla, Aigüestortes, Montseny, el Cadí, Guadarrama, etc.) that are very attractive venues for holding these sports events.

As indicated above, 89% of all these events take place in protected areas. Figure 6 shows the number of events in each region and whether they take place inside or outside protected areas. The cases of Navarre and Castilla - La Mancha stand out, as most of the events take place outside protected areas. The opposite case can be found in the Valencian Community, Madrid, Castilla y León, Asturias or the Basque Country, where all of the events take place in protected areas. Similarly, in Catalonia, Andalusia and the Canary Islands, a high percentage of events are held in protected areas.

Castilla La Mancha is the region where the man number of participants per event is highest, with averages in excess of 900 participants. The mean number of participants is also high in Navarre and the Basque Country, with means of 616 and 479 participants per race, respectively. The lowest means are from Aragon, Extremadura and Galicia, with averages of less than 300 participants per race (Figure 7).

**Table 2. Number of events carried out in each region.**

Region	Total number of events	N° of events within protected areas	N° of events outside protected areas
La Rioja <sup>1</sup>	2	0	2
Principality of Asturias	11	11	0
Castilla-La Mancha	14	8	6
Navarre	20	3	17
Cantabria	23	14	9
Extremadura	23	23	0
Galicia	26	19	7
Castilla y León	30	29	1
Balearic Islands <sup>2</sup>	33	33	0
Murcia	49	40	9
Canary Islands <sup>3</sup>	56	53	3
Valencian Community	64	64	0
Aragon	65	46	19
Basque Country	87	87	0
Madrid	97	97	0
Andalusia	143	112	31
Catalonia	360	345	15
<b>Total</b>	<b>1,103</b>	<b>984</b>	<b>119</b>

1. No official data

2. Only data from Majorca and Minorca

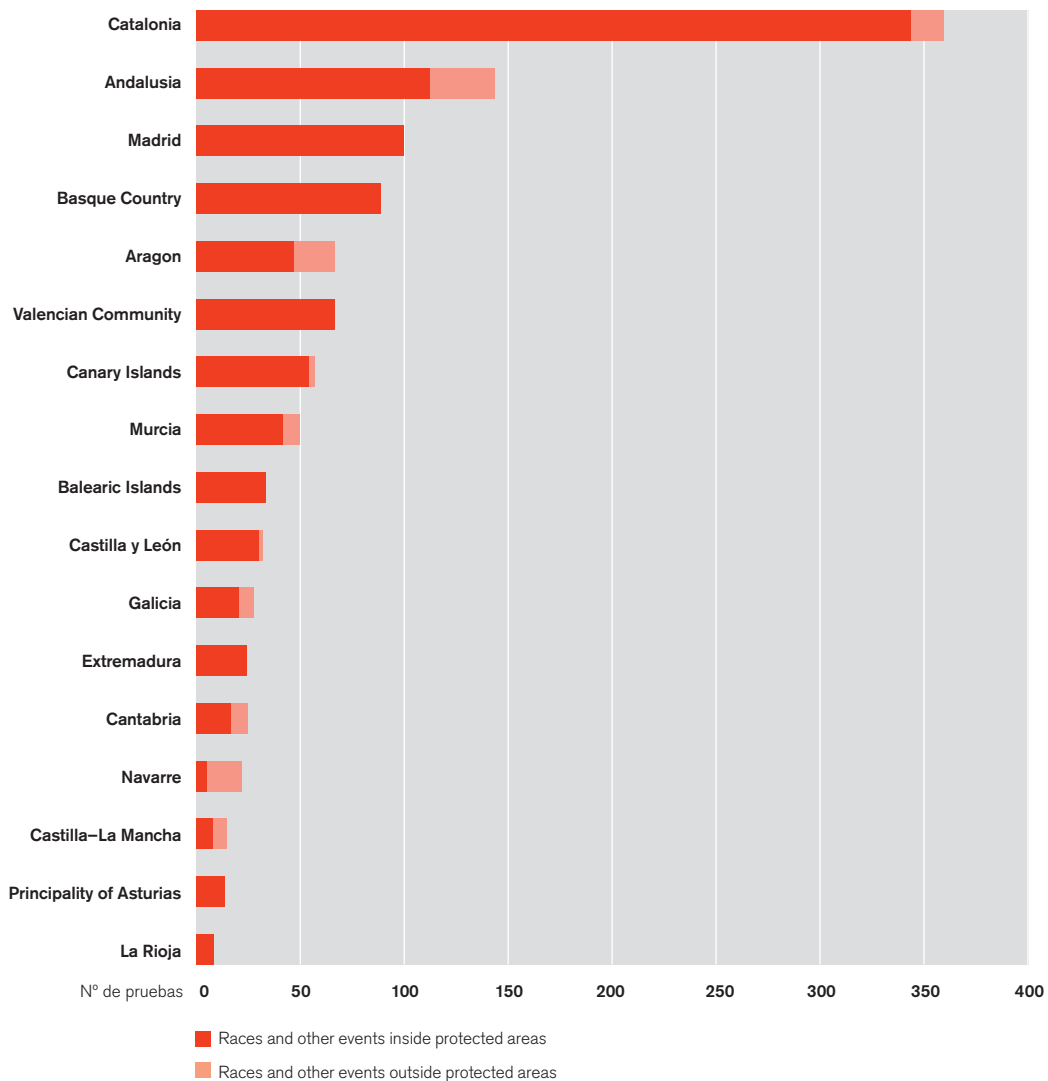
3. Only data from Tenerife, Gran Canaria and La Gomera.

**Source:** EUROPARC-Spain.

Data from 2015 provided by the environmental administrations belonging to EUROPARC-Spain.

N° of events in protected areas with data	N° of participants in protected areas with data	Mean n° participants per event in protected areas with data
0	0	0
11	3,700	336.36
3	2,850	950.00
3	1,850	616.67
4	1,250	312.50
4	1,050	262.50
16	4,223	263.94
9	4,150	461.11
30	10,894	363.13
39	16,670	427.44
53	19,560	369.06
55	25,508	463.78
33	7,655	231.97
39	18,698	479.43
80	24,060	300.75
107	34,765	324.91
206	69,583	337.78
<b>692</b>	<b>246,466</b>	<b>356</b>

Figure 6. Number of events held inside and outside protected areas by region. Data from 2015 provided by the environmental administrations belonging to EUROPARC-Spain.

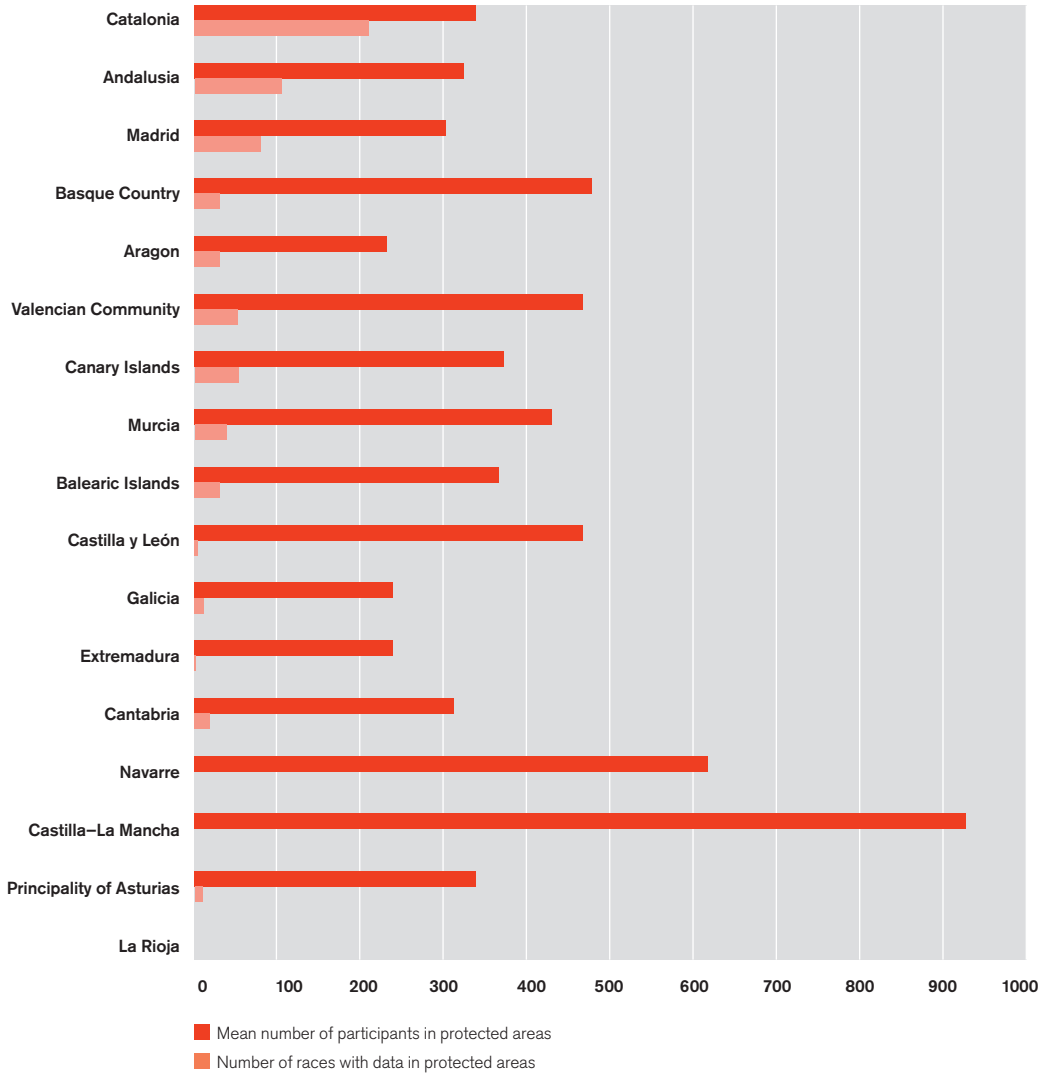


Source: EUROPARC-Spain.

Data from 2015 provided by the environmental administrations belonging to EUROPARC-Spain.



Figure 7. Number of races and mean number of participants per race, by region. Data from 2015 provided by the environmental administrations belonging to EUROPARC-Spain.

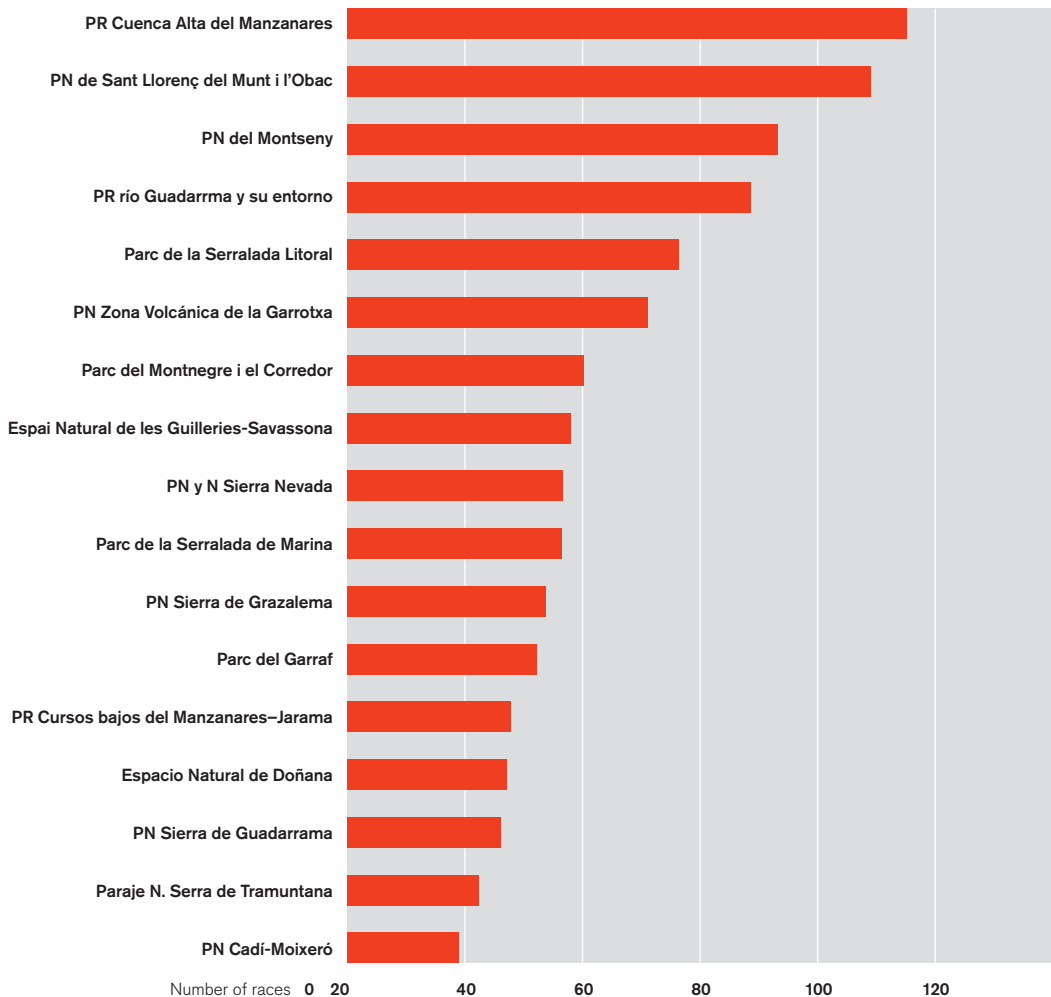


Source: EUROPARC-Spain.  
Data from 2015 provided by the environmental administrations belonging to EUROPARC-Spain.

### 1.3.3. Mountain races and other events: situation by protected area

If we analyse the number of events by protected area, using only those spaces with 20 or more events per year (17 protected areas), we can see there is a wide difference between spaces. The space hosting the largest number of events is the Regional Park of the Upper Manzanares Basin in Madrid Region, with a total of 96 events held in 2015, followed by several spaces in Catalonia, Andalusia and Madrid (Figure 8). These figures are in line with those reported for the number of events by region, as this explains the total data for these three regions.

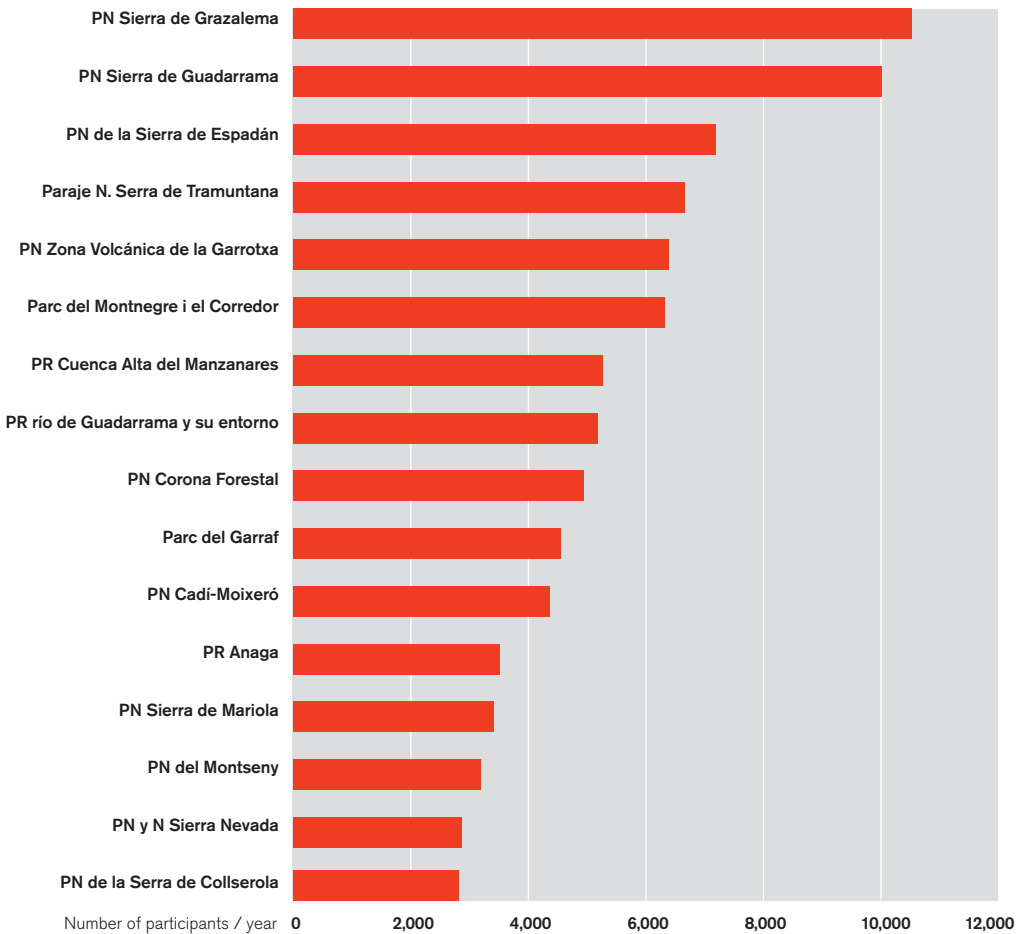
Figure 8. Total number of events held in different protected natural areas.



Source: EUROPARC-Spain.  
Data from 2015 provided by the environmental administrations belonging to EUROPARC-Spain.

We can also analyse which protected areas attract the largest number of participants in the various events held in the course of a year (data for 2015). According to the information available, the Sierra de Grazalema Natural Park and the Sierra de Guadarrama National Park are the ones with the largest numbers of participants, with 10,580 and 10,050 participants respectively. In this case, the data analysed come only from the 16 parks with a number of participants equal to or greater than 3,000. Once more, the protected areas of Catalonia, Madrid and Andalusia present a larger number of participants per event, with a few exceptions, as in the case of some spaces in the

**Figura 9. Number of participants in some events held in different protected natural areas.**



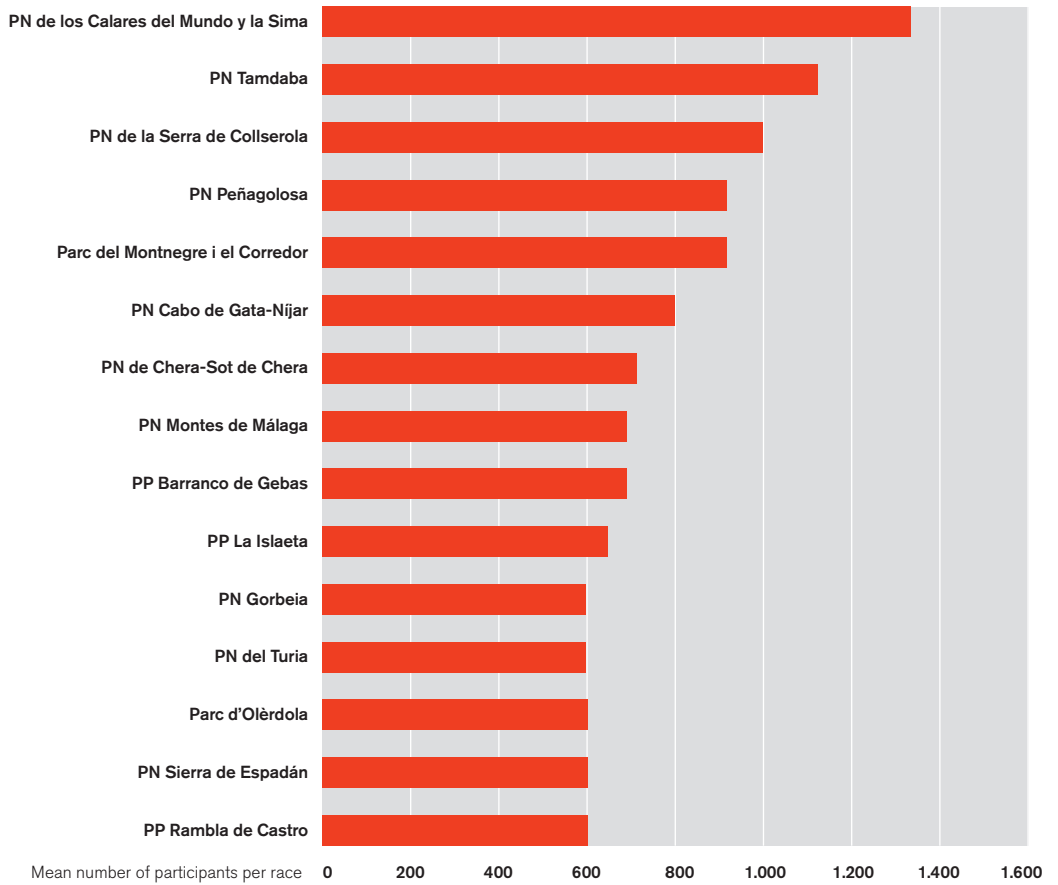
**Source:** EUROPARC-Spain.  
Data from 2015 provided by the environmental administrations belonging to EUROPARC-Spain.

Valencian Community, the Balearics or the Canaries (Figure 9). In all these cases, given these high participation levels, it would be necessary to reflect on the suitability of holding events of this type with such masses traipsing through a protected area.

For the specific case of races, we can analyse the mean number of participants per race in different protected areas. Those protected areas with the largest mean number of participants per event correspond, above all, to parks in Catalonia, Andalusia, the Canary Islands and the Valencian Community, with a few exceptions, as in the case of the Calares del Mundo Natural park in Albacete, which has very few races but with a very high volume of participants in each one, thus giving an average of 1,350 participants per race (Figure 10). In this case, the data are only shown for parks with averages equal to or greater than 600 participants per race.

Furthermore, it is of interest to analyse the density of the events compared to the hectares of protected area or the number of participants per hectare of protected area. These figures are shown for the 40 protected areas with the largest number of events or the 40 spaces with the largest number of participants per event. The results of this analysis show that one event is held for every 1,600 Ha of protected area. In the case of participants, the mean is 1 participant for every 11 Ha of protected area.

Figure 10. Mean number of participants per race in different protected natural areas.



Source: EUROPARC-Spain.  
Data from 2015 provided by the environmental administrations belonging to EUROPARC-Spain.



Photo 4. Meeting of the working party on "Mountain races in protected natural areas" held in Madrid at the headquarters of the Technical Office of EUROPARC-Spain in October, 2015.

## 2 Working Methodology and Structure of the Guide

This guide is one of the outcomes of the Working Party on mountain races in protected natural areas, co-ordinated by the Technical Office of EUROPARC-Spain, which has received the economic support of the Barcelona Provincial Council and the Basque Regional Government, as well as the collaboration of the Spanish Federation for Mountain Sports and Climbing (FEDME).

The working party comprised personnel from the administrations with powers to manage protected areas, researchers, environmental consultants, runners and technical experts from the FEDME. In order to carry out the work of the group, the following calendar was established:

- Kick-off meeting on October 29th, 2015. Madrid. Sharing of the problem, experiences of participants and definition of the structure for the guide (photo 4).
- Second meeting on December 17th, 2015. Barcelona. Completion of the document with examples of good practices in the various sections and approval of the contents of the proposed document.
- Third meeting on February 25th, 2016. Vitoria. Joint review, discussion and analysis of the document.
- Final meeting on April 18th, 2016. Madrid. Review, discussion and final approval of the document.

In addition to the face-to-face meetings, part of the work was also carried out on line via email or electronic tools such as Drop-box.

The guide is organized in **three main sections**, reflecting the fundamental milestones in any mountain race: its planning and design, its execution and the conclusion of the event. For each of these phases, the group defined the actions or criteria that must be considered or taken into account by both the entity organizing the event and also the competent administration for managing the protected area, as well as the engagement and commitment of the participants.

- **PHASE 1. Planning and design of the event.** This is the period of time elapsing between the organizer having the first idea about the event until the day it take place. The most relevant documents and tasks would include the description of the event, through its technical dossier, communication with the protected area's management body and, where they have appropriate powers for the organization of sporting events in natural surroundings, the identification of the necessary permits, insurance and authorizations, advertising and resources, etc.



**Photo 5.** Start of a mountain race in the Spanish Cup championship. Photo by: FEDME.

- **PHASE 2. Holding the event.** This begins with the installation of all the elements needed to hold the event, an informative briefing session on the race, the event itself (photo 5), and concludes with the awards ceremony. Monitoring of the aspects set out in the environmental report, detection of impacts, types of controls by the environmental umpires, etc.
- **PHASE 3. Conclusion of the event and final assessment.** This begins with the dismantling and clean-up of the venue, assessment of the impacts caused, the implementation of the measures foreseen, the satisfaction assessment survey, a closing technical meeting for debriefing, etc. and concludes with the definitive sign-off by the protected area's management body of the final assessment report submitted by the organizers.

Each of these phases includes and specifies the kind of task or action that must be assumed by each of the players involved in a mountain race: the organizing entity, the environmental administration or other parties involved, and the runners. They also include the various types of reports, regulations, guidelines, or advice to be taken into consideration by the event organizer, the protected area's management body and by the runners (Figure 11).

Furthermore, in the execution of these phases, the guidelines include recommendations or advice to be taken into consideration, some of which are high priority and



Figure 11. The main guideline tools (RED BOXES) and management actions (GREY BOXES), divided according to the responsibilities of the organizers, the protected area's management body or of participants.

	PHASE 1. PLANNING AND DESIGN OF THE EVENT	PHASE 2. HOLDING THE EVENT	PHASE 3. CONCLUSION OF THE EVENT AND FINAL ASSESSMENT
<b>ORGANIZER</b>	<p><b>TECHNICAL DOSSIER:</b></p> <ul style="list-style-type: none"> <li>– General description</li> <li>– Document identifying and correcting impacts</li> <li>– Regulations for competitors</li> </ul> <p>Apply for permits, deposit bonds and guarantees, take out insurance, etc.</p> <p>Advertise the event</p>	<p>Guidelines for holding the event</p> <p>Report on environmental incidents</p> <p>Comply with the regulations / undertakings set out in the technical dossier</p>	<p>Final assessment report</p>
<b>ADMINISTRATION</b>	<p>Planning and management tools: PORN, PRUG, PUP,...</p> <p>Draw up the event calendar</p> <p>Authorize the event by applying criteria or guidelines</p> <p>Provide information about protected areas and useful information for organizers</p>	<p>Guidelines for holding the event</p> <p>Raise awareness about the natural and cultural values of the protected natural space</p>	<p>Sign off on the final assessment report. Refund bonds or guarantees</p> <p>Undertake restoration actions</p>
<b>PARTICIPANTS</b>	<p>Regulations for competitors (signing)</p>	<p>Regulations for competitors (compliance)</p>	<p>Satisfaction questionnaire (complete)</p>

other criteria or actions that are more secondary. The criteria identified as high priority should be included in the regulations governing protected areas (PORN, PRUG, PUP and other plans).

This guide also includes a section devoted collating, in data sheet format, illustrative examples of novel actions and useful or benchmark experiences that can be used as a template for implementation elsewhere.

The guide includes a glossary of technical terms to help clarify concepts and provide a terminology that enables us to speak the same language when discussing activities of this kind held in our mountains. The last section included contains appendices.



Photo 6. Installation of a finish line space in an urban area. Photo by: Cano\_Fotosports.

# 3 Phase 1. Planning and Design of the Race

## 3.1. The role of the organization

The organizers of a mountain race are the entities promoting and developing these events. As we have seen, they are extremely diverse, ranging from federations and hillwalking clubs, public administrations (district and town councils, among others) to companies, franchises or NGOs.

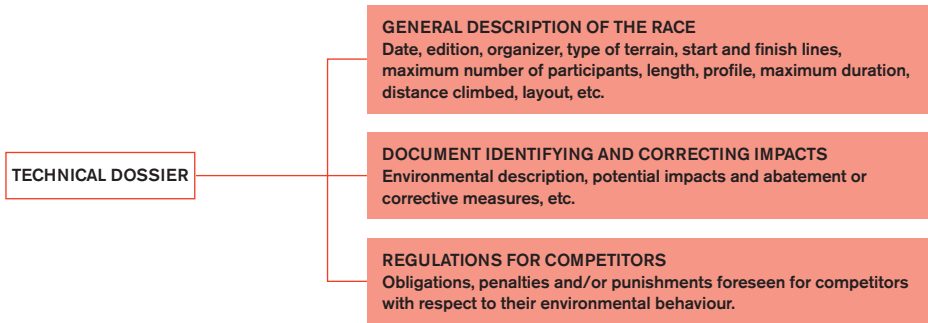
The main functions of the organization include:

- Pre-competition (administration, requesting with sufficient time in advance all necessary permits and authorizations, checkpoints, course of the itinerary, marking and fitting out the itinerary, weather information, fitting out the start and finish lines, map with the itinerary and its profile, advertising the race, ...).
- Receive applications and register the persons accredited for the competition.
- Register and control access to the areas near the start line, finish line and other restricted areas, observing the indications given by race supervisors.
- Ensure the maximum security throughout the competition's itinerary.
- Strive to minimize the environmental impacts generated by the competition.
- Provide services for the race supervisors, press and other media.
- Provide medical and rescue services, as well as any other amenities agreed.
- Organize the opening ceremony, the awards ceremony and the closing ceremony.
- Collaborate with the race supervisors at all times.

### 3.1.1. The technical report for the race

The race organizer must submit a **technical dossier** on the event to the entity responsible for managing the protected area. This document will include: a general description of the race, a document identifying and correcting any impacts and the regulations for runners (Figure 12).

Figure 12. Documents making up the race's technical dossier.



### General description of the race

This section will include the general characteristics of the type of race. Among others: organizer, date it is to be held, course, edition number, advertising, type of terrain, start line and finish line, maximum number of participants, length, profile, maximum duration, distance climbed, etc.

Next, it should indicate a series of captions that the organizer must refer to and pay particular attention to when drawing up the general race description. A summary of some of these aspects should also be included in section A of Record 1.

- **Design of the race course.** Before designing the race course, it is a good idea for the organizer to contact the environmental administration, as this will facilitate the drafting of the itinerary's design. The race's itinerary should be scanned onto a digital map at an adequate scale (1:25,000). The following aspects will be taken into account when designing the course:
  - The start line and the finish line should preferably be located in urban areas (photo 6).
  - As a general criterion, when choosing potential routes, consideration should be given to the different types of substrates, with priority being given to those that are well consolidated, without any problems with erosion and regularly maintained.
  - The route will go through areas outside the most fragile and sensitive areas of the protected area.
  - The course must take into account, at the start of the race, a section that goes through urban areas and similar, so that there are no sensitive areas close to the start line, where large numbers of runners are crowded together.
  - Together with the environmental administration, an analysis should be made of the races taking place at night to minimize the distance covered inside any protected areas, taking into account the timings and the course. In the case of races with part of the itinerary authorized at night, criteria must be established so that during these hours, the most sensitive and fragile enclaves are avoided to ensure their proper conservation.

- Generally speaking, races that take place exclusively at night should be avoided.
- Runners must travel along the road or trail network in the protected area or those provided by the local entities, when these exist. The ranking for using these routes will adapt to the following types:
  - paved tracks,
  - beaten earth tracks,
  - network of paths through the protected area,
  - other consolidated or signposted paths,
  - those shown on the inventory of trails (when this exists).
- The plant life on the edges of the paths or trails to be used for the race must not be pulled up, cut, cleared or damaged so as to prepare the route for the race.
- Consideration must be given to the compatibility with other uses that might co-exist in the natural protected area at the same time as the race (stretches of track opened for transit by powered vehicles, bicycles, horse-riding trails, certified hiking routes attracting large numbers of users, etc.). Organizers must specify whenever it is necessary to close off certain access points during the race.

- **Advertising of the race and registration.** For new races and those that have substantial changes to their itineraries, the organizing entity is strongly advised to wait until all necessary permits and authorization from the competent environmental administration, or at the very least prior consultations have been made to ensure the feasibility of the race and its course, before opening the registration period or advertising a specific route. This information should preferably be sent out by email. Similarly, it is recommendable to have participants register for the race electronically, thus avoiding the consumption of paper.

The information sent to participants must expressly indicate that the race will be taking place in a protected natural space, informing them about its natural values, and the main environmental constraints established in the authorization in order to guarantee its proper conservation.

- **Authorization for holding the event.** The race organizers must apply, with sufficient time in advance, for the corresponding permits and authorization to hold the event. In any case, these time frames will adapt to the calendars established by the environmental administration.

The logical order when the organization is requesting or applying for permits will be as follows: protected area, owners, town council, traffic administration, other administrations.

- **Marking, signposting or arrows for the itinerary.** This will have the job of clearly indicating the race route so as not to cause any confusion. The type of



material and the location of the arrows (georeferencing) will be determined in advance (it is better to use re-usable material such as stake type arrows). Any material used should not be breakable, should be easy to collect afterwards, its collection will begin immediately after the race is over or as soon as possible thereafter, and must not leave any traces on the space after the event. The use of any kind of paint, whether gypsum or lime, will be avoided, including the marking of the route with biodegradable elements. Trees, rocks and other natural elements must never be used to anchor, nail or screw in signs.

Arrows might include a distinctive mark of the organization (logo of the club) (photo 7). In all cases, it would be recommendable for the route chosen to be able to follow courses already marked by PR or GR hiking signs, etc.



**Foto 7.** Stake type arrows with the mark of the organization. Photo by: M. Oñorbe.

Special attention will be paid to the most sensitive areas that might receive impacts by the transit of runners (wetlands, areas at risk of erosion, sensitive elements such as threatened species of flora) as well as the areas with the maximum concentration of spectators. In such cases, volunteers can be used instead of arrows or signs and informative posters can be installed in order

to ensure runners maximize their precautions and do not stray from the trails marked (photo 8). The organization must also inform runners in advance, prior to the start of the race, about the existence of these sensitive areas.



Photo 8. Informative posters on the celebration of a race. Photo by: M. Oñorbe.

- **Control points at start line, intermediate points and finish line.** All the control points and mechanisms to be used (official chronometers, chips or runner numbers) must be defined, along with the personnel that will be assigned to this task.
- **Aid stations.** Aid stations for the provision of food and drink will preferably be located in areas that can be accessed by vehicles, taking advantage of recreational areas, natural belvederes, or other publicly used infrastructures, provided that their location is not incompatible with the normal use of these infrastructures on the planned date. Their location signage and accesses must be defined. All waste will be minimized and will be collected separately. No packaging of any kind will be used at these stations. This is an ever more widely practised option that should be made compulsory.



- **Communications.** A plan must be defined in advance for communications between the organization's personnel located along the route: aid stations, environmental judges and umpires, healthcare providers, civil protection personnel, the personnel of the protected area and a communications centre. This communication network will keep the technical team informed of any incident arising in connection with the environment, security or health issues. Furthermore, runners will be given a contact telephone number to be able to provide and obtain information about any kind of incident prior to or during the race. This contact or emergency telephone number could be printed on the back of runners' numbers.
- **Legal and security undertakings** that must be complied with in any event of this type (emergency plan, self-protection plan, security plan, etc.), depending on the specific regulations imposed by each regional administration. In all case, it is important for the organizer, when drawing up the security dossier, the security plan or the self-protection plan, to do so on the basis of the route finally authorized by the environmental administration, in view of the possibility that the itinerary initially foreseen may have to be changed due to environmental reasons.
- Commitment to **comply with the environmental regulations** that may be applicable.
- **Necessary logistics support.** A list of vehicles needed (support vehicles, ambulances, etc.) will be drawn up as well as any other logistics measure planned for the race.
- **Cleaning.** The cleaning plan will be defined in order to return the natural medium to the same state it was in prior to the race.
- **Festive animation, stages, toilets, lockers,...** Description of any temporary structures, when these will be installed and removed, PA system...
- **Good environmental practices to be implemented by the organization.** A fundamental aspect is the fulfilment of good environmental practices by the organization. These good practices should be set out in a document and their fulfilment ensured by the organizer. Their contents should conform to the following criteria:
  - The race must be designed and scheduled, taking into account the periods of the year with the least or most favourable impact on flora or fauna.
  - The start line and the finish line must preferably be located in urban areas. These will be the only places along the route where commercial advertising (posters, banners, etc.) can be installed.



**Photo 9.** Food and drinks at an aid station. Photo by: Cano\_Fotosports.

- As a general criterion, in the choice of routes, consideration will be given to the different types of substrates, with priority being given to those that are well consolidated, without any problems with erosion and regularly maintained. In all cases, this will be a limiting factor when assessing a course and the number of participants. Itineraries will never include cross-country stretches. In extraordinary cases, it may be possible to authorize the use of a short off-road stretch provided that its use can be shown to have zero impact following an environmental assessment.
- Food and drink must be provided at locations that are easily accessible in order to minimize problems when transporting materials and subsequent waste. Selective waste collection containers must be provided.
- At aid stations, food and drink must not be in any kind of packaging, all fruit must be peeled, etc. (photo 9).
- Areas for spectators must be located in easily accessible areas, avoiding agglomerations and impacts on the resources, and facilitating circulation.
- The organization must obtain permission from any possible owners of private land, or holders of hunting rights, etc.
- In all race advertising and at the preliminary meetings with runners, information will be provided about the basic rules for respecting the natural setting and the regulations inherent to the protected natural space.
- The organization will undertake not to use any kind of paint (not even biodegradable paint) for signage purposes.



**Photo 10.** The use of walking sticks may be customary in stretches with a steep incline. Photo by: M. Oñorbe.

- The production of noise will be avoided within the natural setting. PA systems and other noisy backgrounds will be limited to the areas around the start line and the finish line and only when these are located in urban areas.
- The organization must undertake to co-ordinate, in collaboration with the competent authority, the parking of vehicles (both of the organization itself and also of the public attending) so that they do not obstruct road traffic and access to tracks, do not affect natural embankments, and do not block accesses to water abstraction points or fire-fighting water deposits. These parking areas must have at least two exits.
- The use of collective public transport will be promoted (coaches, high occupation vehicles, etc.) or else that provided by the event organizers themselves.
- Include an undertaking to inform runners of the environmental behaviour they should follow during the race (no shouting, staying on the tracks marked, no shortcuts, no litter).
- Volunteers must receive some initial environmental training in order to carry out their functions (monitoring sensitive locations, awareness of the protected area, identification of impacts, creating awareness among runners, etc.).
- The organization may include, as part of the registration charge, a small environmental fee intended to help with the restoration and conservation of the protected area.

- Include an undertaking to inform runners of the impacts they could cause when training on the race course, and that they must therefore also abide by the same good practices indicated by the organization for race day.
  - Assess the possibility of runners participating in the maintenance and restoration of the paths used in the race that have been damaged by holding the event.
  - If the weather conditions (rain or snow) make this advisable, the race organizers and the environmental administration will study the possibility of banning the use of walking sticks on certain parts of the itinerary (photo 10). The use of walking sticks may be allowed in ultra distance races.
- **Good environmental practices for those people accompanying the runners.**
- These good practices must also be present in the general description and could be distributed in the form of an informative leaflet to be included in the runner's registration pack or made accessible on the event's web page. The organization should encourage runners to notify those accompanying them about these practices. Among other aspects, these good practices must include:
- Information about access (provide a map), marking transit areas, the times runners are expected to be passing and the locations where those accompanying them can gather (where the impact on the environment is zero or minimal).
  - Recommend the use of public transport. Where private vehicles are used, these must be driven and parked only in the areas specified by the organization and the administration of the protected area.
  - The production of noise will be avoided within the natural setting (no PA). No rockets or fireworks will be allowed, nor any musical groups or loudspeakers for background. This kind of activity may only be authorized in the areas around the start line and the finish line and only when these are located in urban areas.
  - Information on the maximum speed allowed for vehicles within the protected area.
  - Information about aspects of interest in the protected area (natural, cultural). This is a good opportunity to get to know and enjoy these spaces.
  - Inform about the prohibitions on causing any alteration in the species of fauna and flora, their capture or deliberately disturbing them and damage to or collection of species of flora or any of their parts (flowers, fruit, etc.).
  - Inform about the bans on damaging the geological medium or the soil by using pre-existing paths and trails, avoiding any cross-country transit, as far as possible.
  - Invite people to be responsible for their litter and to take all waste home with them or, in all cases, to the selective collection site in urban areas.
  - Inform about the suitability of not using cigarettes or matches. If used, all smoking materials must be carefully extinguished and deposited in containers.



**Photo 11.** Erosion and soil loss are very apparent on paths subjected to a large number of users.

- **Description of the values of the protected area the event is taking place in** and its environmental fragility (with an approach aimed at raising awareness and environmental education).

#### **Document identifying and correcting impacts**

This is a fundamental section within the technical dossier and is intended to identify and minimize potential impacts caused to the protected area by holding the race, their consideration and how to define the measures necessary to abate these impact (photo 11). In addition, it must be useful for the protected area to be able to refer to it and use it as a key tool when assessing the suitability of permitting the race from an environmental perspective. The document must be viewed as a **pre-race reflection by the organizers**, on the consequences and repercussions of holding these events in protected areas.



Among other aspects, this section must contain the information necessary to ensure that:

- The routes proposed use the network of roads and tracks available in the protected area.
- The critical areas are identified in terms of the environmental sensitivity of their fauna, flora, geology, ...
- The route avoids traversing remote or isolated areas, or those considered particularly vulnerable, presenting safety hazards, or far from areas equipped for use by the public.
- Measures are taken into account, when necessary, to mitigate any impacts, for example, changes in courses or dates, limitations on the number of participants, etc.

All races must include this document **identifying and correcting impacts** in their technical dossier. The minimum contents must include all the aspects listed in sections **A** and **B** of **Record 1**. Entities organizing races will complete these sections with all the information they can provide and, if this is considered insufficient, they should include all the considerations and prescriptions arising out of the prior consultations with the body managing the protected area.

## RECORD 1. INFORMATION THAT MUST BE CONTAINED IN THE SECTION ON THE IDENTIFICATION AND CORRECTION OF IMPACTS IN A MOUNTAIN RACE.

### A) Identification of the organizing entity, main characteristics and description of the race.

#### Details of the organizing entity or person submitting the application

Promoter/organizing entity:	Names of those responsible:
Address:	ID card n°:
ID card n°:	Contact telephone n°:
Contact telephone n°:	Contact telephone n° during the race:

#### Concise description of the activity

Name and type of race:	Day/time for installation:
	Day/time for start and conclusion:
	Day/time for dismantling and clean-up:

#### Concise description of the itinerary

- Races over a single route	Distance (km):
	N° of participants:
- Additional routes: races involving more than one itinerary or category	N° and location of aid stations:
	N° and location of control points:
	N° of spectators (approximately):

Total number of assistance vehicles, their characteristics and registration numbers:

Specific needs for access and parking of vehicles:

Proposed signage (description and location):

#### Brief description of the area affected by the activity (description of the itinerary: co-ordinates, map of the location, etc.)\*

\*The itinerary or route must be georeferenced by means of a track This information will be sent to the email address of the protected area.

**B) Environmental description of the race's course, by homogeneous stretches, with respect to their environmental fragility.**

**The environmental body in charge will provide the information needed to complete this section.**

<b>Physical medium</b>	Relief	<ul style="list-style-type: none"> <li>– Maximum elevation:</li> <li>– Minimum elevation:</li> <li>– Areas with the greatest inclination:</li> <li>– Areas with multiple courses:</li> </ul>
	Hydrology	<ul style="list-style-type: none"> <li>– Wetlands close to the race course (lagoons, ponds, swamps, bogs, torrents, rivers):</li> <li>– Areas where crossing points will be installed (provide photographs):</li> </ul>
<b>Biological medium</b>	Plants	Main plant formations existing along the race course.
	Flora of interest	Describe any species of flora of interest that may be impacted by the race. Of particular importance in spring (provide photographs):
	Fauna of interest	Describe the main species of fauna of interest that may be impacted by the race. Of particular importance in spring.
<b>Cultural resources</b>	Cultural heritage	Elements of cultural heritage in the area affected by the race. Provide an inventory of the type of paths followed in each stretch of the race (cattle routes, SL, PR, GR, etc.).
<b>Legal concepts</b>	Protected areas included on the itinerary	Indicate the protected areas through which the event will pass. Indicate whether there is an approved management plan in place and whether it regulates mountain races.

The management body will be in charge of identifying whether or not the race passes through **fragile or unique enclaves**, , for example areas of the protected area classified as highly sensitive in zoning terms (reserve areas), special or fragile habitats, enclaves with species catalogued as rare or threatened, new or pre-existing nests of birds of prey, etc. In such cases, an assessment will be made, together with the organizing entity, of the potential impacts and the definition of specific abatement measures depending on the impact identified. All the information generated will be included in the section on identifying and correcting impacts in the technical dossier for subsequent editions of the race, provided there is no change in the characteristics of the race or in environmental conditions. This integration may be done using the indicative contents listed in section **C** of **Record 1**.



**C) Potential impacts and abatement measures. By homogeneous stretches in terms of their environmental fragility.**

**The environmental body will provide the information needed to complete this section.**

**Note: complete only those sections that may be directly impacted.**

<b>Impacts and abatement measures</b>	Physical medium	Impacts (erosion, compacting) (describe):	Measures (describe):
	Biological medium	Impacts (flora, fauna, streams, wetlands) (describe):	Measures (describe):
	Cultural heritage	Impacts (describe):	Measures (describe):
<b>Cartography</b>	Detailed drawings	Only of the areas with the greatest sensitivity	Suggested scale 1/5,000
	Drawings that include the environmental measures	Only of the areas with the greatest sensitivity	Suggested scale 1/5,000

**Comments (this section will be used to indicate aspects not reflected in the previous sections and considered important):**

If the race's course is detected as potentially causing environmental incidents affecting the main objects of conservation in the protected area or unique enclaves with high environmental fragility, as well as in those cases where the organizing entity prefers to assume the environmental impact assessment and, in all cases, **whenever** it is unwilling to change the route or other characteristics of the race at the request of the environmental administration, the organizing entity must draw up an **environmental report**. The preparation of this report by the organizers will also be compulsory when:

- the proposal involves new races or substantial changes to existing routes (course, number of participants, etc.),
- whenever the number of participants or the race course requires highly complex logistics for the race's organization and progress.

This **environmental report** will include all of the contents described in Record 1 (sections A, B and C) and, by way of indication, may be based on appendices I and II. In addition, it will include an **environmental monitoring plan** (Figure 13). In all cases, the environmental administration will establish the complexity and scope of the contents of this environmental report, which may be increased in direct relation with the percentage of the races route that may cause environmental incidents or impacts affecting the main objects of conservation in the protected area or unique enclaves with high environmental fragility.

Figure 13. Minimum components of the environmental report for a mountain race (adapted from Oñorbe, 2015 a, b, c, d and e).



- **Environmental monitoring plan.** This document must plan for the oversight of all of the race. The people involved in monitoring will be the environmental umpires or similar figures from the organization and will each have a monitoring guide.

This plan must include the following actions:

- *Prior to the race:* in order to generate the exact profile of the route and identify the most fragile areas, the measures to reduce the impacts, the inclusion of special signage or the location of volunteers or environmental umpire.
- *The day before the race:* position all the signage needed for the race and collect data for the measurement of potential impacts.
- *During the race:* monitor that everyone follows the course established and complies with the measures imposed.
- *After the race:* retrieve all of the signage material (arrows and so on) (photo 12), pick up any possible litter caused by the runners and spectators, and collect data on the impacts caused by the race.

- **Other possible aspects to be included in the environmental report:**

- Table or sheet for the recording of impacts (for use during the race).
- Table or sheet for proposing corrective measures.
- Table or sheet for the final assessment of the impacts.
- Environmental assessment of the organization's access to checkpoints and aid stations (reached by vehicles along tracks/paths).
- Plan to minimize the impacts by the people accompanying the runners (maps for the location of the best points for them to follow the race).

### **Regulations for competitors (environmental section within the regulations)**

The regulations for competitors is the governing document to be drafted by the organization. Its environmental section will set out the obligations, penalties or punishments foreseen for competitors with respect to their environmental behaviour. The regulations must include, in the preamble or introduction, a concise explanation of the values of the protected area where the race is going to take place and its



**Photo 12.** Retrieval of signage material by the organization's volunteers. Photo by: Cano\_Fotosports.

environmental fragility. This text must be markedly educational in nature and raise environmental awareness.

The regulations must be available on the race's web site. In addition, the organization must commit to giving the maximum priority to information about environmental issues during the promotion of the race.

A sample of the environmental obligations compiled from various regulations for mountain races is given below.

- **Obligations of runners with regard to respecting and caring for the natural environment**

These obligations must also be borne in mind during the **training periods** by runners prior to their participation in any competitive race:

- Respect the environment. Do not damage any natural, geological or cultural resources.
- Stick to the route established and signposted by the organizers. Avoid any secondary paths straying from the main route. Never take short cuts across country. Avoid cutting across the inside of any curves.



**Photo 13.** Avoid stepping into temporary puddles or wet areas during races. Photo by: M. Oñorbe.

- No littering (wrappers, packaging, food or material). All waste should be deposited in the places indicated by the organization.
- Do not use any intermittent or flashing lights, except for headlamps worn to illuminate the route during night-time races.
- Notify the authorities of any improper environmental behaviour by other runners.
- Have all gels, energy bars, etc. marked with their personal number.
- Do not shout or make noises while running. Respect the silence of nature.
- Avoid invading any wet areas: puddles, streams, peat bogs, etc. (photo 13).

#### ▪ **Penalties**

The organizers will ensure the strict enforcement of these obligations and, where appropriate, apply the penalties stipulated. The amount of time penalties will be decided by the organization (race co-ordinator, timekeeper, and the checkpoint supervisors) having regard for the benefit obtained and the harm caused. The following actions are grounds for penalizing or even disqualifying runners:

- Dropping litter or waste during the race.
- Abandoning waste anywhere other than at the bins provided at the aid stations.
- Leaving the itinerary established. Shortening the route or taking short-cuts.
- Passing through areas previously marked and notified as sensitive because

of their flora or fauna (unique habitats, wetlands of biological interest, ponds, temporary streams, peat bogs, etc.).

- Shout or produce noise (whistles) or light (flashes) that may disturb nearby fauna or other users of the space, without good reason.
- Mark any part of the itinerary with sprays, paints or other indelible elements.
- Remove any of the elements (number, identification code) needed to identify the participant.

### **3.2. The role of the administration of the protected natural areas**

The administration of a protected area is the entity responsible for its management. It is in charge of drawing up the document authorizing the holding of a mountain race.

The administration of the protected area must ensure that:

- It responds to the application from the organizing entity, assessing the race's compatibility with the conservation and management goals of the protected area, and incorporating suitable conditions in line with its characteristics.
- The race is held in accordance with the permits granted so as not to cause any impacts or, if any impacts are caused, that these are as small as possible and, in all cases, are always reversible.
- The race does not imply any conflict in the use of the space by any other users or visitors.
- The race serves as a tool for raising awareness and improving the conservation and development of the venue, and is not just a sporting or money-making event.
- The proposed action measures are those necessary for the conservation of the protected area and its management goals.
- Both the organization and the umpires have the environmental information they may need, as reflected in the technical dossier, to be able to plan the progress of the race, ensure everyone follows the course correctly, and draw up the corresponding documents and reports.

Protected areas must have planning and management tools in place to help them ensure the correct management of mountain races. Among these tools, the following are particularly recommendable:

- The planning and management instruments ("PORN", "PRUG" or other documents related to the Natura 2000 Network) and, where appropriate, a pre-established plan for public use or specific regulations for mountain races (criteria for their regulation, templates for conditions).
- An annual calendar enabling organizers to establish the best dates available for holding races and giving the breeding and/or nesting seasons for fauna in order to

avoid possible impacts, and bearing in mind the other events being held that might interfere or are incompatible with holding a race (pilgrimages, mushroom gathering, local festivities, hunting, cattle driving, etc.).

- Linked to this calendar, published criteria for prioritization to be applied in the event multiple races coincide: federations (circuit for the Spanish Cup), environmental quality seals (which will include an environmental assessment accrediting the competition's minimal impact), age, etc.
- Standardized processes with clear guidance and defined deadlines for the authorization of races.
- A list of the minimum contents for the presentation, if appropriate, of the environmental report prior to the race, and for the drafting of the subsequent impact monitoring report.

Other tools of interest:

- Inventory of forest trails, paths and tracks that can potentially be used to organize races.
- Maps of priority habitats, fragile areas, reserves, places with a high risk of erosion,...
- Networks of volunteers to collaborate with these events.
- Lists with proposals for possible restoration/compensation actions in the wake of the impacts arising.

### 3.2.1. Criteria for authorizing a mountain race

This section lists a set of **criteria that the administration of the protected area must consider when authorizing a mountain race**. These criteria are presented in two groups, divided in terms of their relevance. First come the **high-priority** criteria, followed by other **secondary** criteria of lower significance or relevance.

#### ▪ High-priority criteria

- 1) All activities must **conform to the legislation on the conservation of natural spaces** in force at each environmental administration. Specifically, they must adapt to the goals, regulations and zoning decisions reflected in the planning and management documents for the protected area where the activity is to take place (Natural Resources Organization Plans (PORN in its Spanish acronym), Use and Management Steering Plans (PRUG), Natura 2000 Network Management Plans, Public Use Plans, and others). These documents should include regulations on this kind of sporting event.

If the protected area has none of these documents approved yet, the organizers must comply with the terms and conditions established by the technical services of the competent environmental administration.





**Photo 14.** Participants running through an oak forest. Photo by: Cano\_Fotosports.

Some aspects that will constrain the activities that can be carried out will be related to the fragility of the territory, its vulnerability, propensity to erosion, the presence of habitats or species of particularly sensitive or protected flora or fauna, as well as the presence of other unique elements of the natural or cultural heritage.

- 2) The race must **play an important role in disseminating the natural and cultural values** of the space where it is held and must promote behaviour that is environmentally-friendly (photo 14).
- 3) These activities **must be compatible with the rights of private property owners, their economic activities and the activities that other users may wish to carry out in these settings**. Where the race is crossing private land, the organization must first obtain the corresponding permission from the land's owners.
- 4) The **submission of the request to hold a race** involving a protected area must conform to the procedure established by the competent environmental administration. In this sense, each space must establish an **annual calendar** enabling the most suitable dates and periods to be defined for holding races, taking into account the diversity of events and the type of space. This calendar must allow the best distribution of races across the entire year, except for those periods deemed most





**Photo 15.** Mountain race through the forests of Cercedilla in the Sierra de Guadarrama, Madrid. Photo by: J. M. Nasarre.

sensitive for flora and, above all, for the nesting and/or breeding seasons for fauna, which obviously vary for each space. A deadline will be set for the submission of applications and it will be possible to set a maximum annual number of races for each type and for the total number of events that can take place in the protected area. This calendar should also prevent races from being held on those dates when the venue receives the largest number of visitors or other events incompatible with a race are being held (local holidays, pilgrimages, mushroom gathering, hunting, etc.).

- 5) Once the annual calendar for races is available, a global assessment must be made of all the events to verify their **accumulative or synergic effects** in certain locations that may be subject to more assiduous use. This would make it possible to regulate the number of events at those places, possibly reducing the number, or even establishing an alternation between the various events in different years so as not to damage excessively the conservation of the most frequented paths or trails. Similarly, consideration will be given to the accumulative effect on the landscape and how it is perceived (photo 15).
- 6) Once the necessary permits have been obtained, **the publicity of the race** by the organization must include:
  - The fact that the venue is a protected area, highlighting its natural and cultural values, as well as the social goals of its conservation. Holding a race should be a tool for communicating the values of the protected natural space explicitly and specifically.

- It will show a virtual illustration of the course so that runners can be familiar with it and avoid shortcuts.
- A map indicating the most sensitive areas, and vulnerable or impassable areas, as well as the points specified for those accompanying the runners to follow the race.
- The document with the good environmental practices.
- The obligations to be met by runners: before starting the race (signing the regulations), during the race (comply with the regulations) and after the race (complete the satisfaction survey questionnaire).

7) Assess whether the organization has **signed a formal undertaking with the environmental administration** assuming the recommendations and **good practices** contained in the present guidelines. At the same time, the authorization **may include the deposit of a bond or deposit** to cover potential harm to the natural and cultural resources in the protected area, its infrastructures and amenities. The amount of this bond must be appropriate for the type of race and the potential cost of repairing any harm caused. The administration is urged to use appropriate channels so that the bond or deposit is returned as promptly as possible once the event is over and its impacts assessed.

8) In order to authorize a race, positive consideration will be given to those events **avoiding multiple courses for the same race** (short, medium and long). In the case of multiple courses, the shorter ones must, for the most part, coincide with the longest distance.

9) A **maximum number of participants** must be set for each type of race. This number will be established in view of the **capacity** of the area(s) in the protected area through which the race will take place. The following variables will be taken into account to establish this capacity:

- type of protected area,
- type of route used (paved track, beaten earth track, path, etc.),
- season of the year,
- length of the race,
- % of its distance run inside the protected area,
- number of participants,
- profile of participants and of the organizing entity (see previous editions),
- fragility of the places the race will go through,
- if it takes place at night,
- ability to manage the protected area,
- perception of massification among participants,
- perception of massification among other users of the protected area,
- other events being held that might interfere or are incompatible with holding a race (pilgrimages, mushroom gathering, hunting, cattle driving, etc.).

**10)** Races must **take place on the trails and paths in the protected area** or those of the local entities, whenever these networks exist. The priority for using these will conform to the following types:

- paved tracks,
- beaten earth tracks,
- network of paths within the protected area,
- other consolidated or signposted paths,
- those appearing on the inventory of trails (where this exists).

This network of paths and trails must not present any problems with erosion. Cross-country races will not be allowed, nor will the creation or alteration of existing trails. In extraordinary cases, permission may be given to leave the trail or path for part of the course, provided that the environmental assessment has shown this to have zero impact.

Depending on the number of participants and other characteristics of the race, it will be possible to increase the number of stretches that must necessarily follow trails more than three metres wide.

**11)** The environmental administration and the race organizers will strive to ensure that any **racess held at night** inside the protected area are as few as possible by analysing the course and the timings (photo 16). **If permission is granted for the race to go ahead with part of the event taking place at night**, a number of **criteria**, will be established so as to avoid, during the hours of darkness, **the most sensitive and fragile locations** from the perspective of their conservation.

**12)** The **places chosen for the start and finish lines** should preferably coincide with urban areas. It is necessary to foresee parking facilities for participants and the people accompanying them at easily accessible sites with minimal impact. The areas for the people accompanying runners to gather must not cause any impacts, agglomerations or difficulties for the circulation of traffic nor affect other visitors and users of the space.

**13)** All **signage used for must be temporary**. The elements used will not cause any impact on the surroundings (it will not be possible to use trees, rocks or other natural elements to anchor, nail or screw in signs) and must not affect other users. The use of paint, gypsum or lime will not be allowed. Whenever possible, pre-existing signage will be used as a support for the race signs. All signage will be put in place no earlier than 24 hours prior to the race date and must be removed immediately after the race or as promptly as possible.



**Photo 16.** Runners in a natural space at night. Photo by: Cano\_Fotosports.

- 14)** Confirm that the **aid stations are located** in visible and easily accessible risk-free locations with low levels of environmental fragility so that they can withstand the high transit of participants and organizers.
- 15)** Any **facilities, such as stages, toilets, or PA systems will be provisional** and must be removed on the same day the race takes place or the next day. They will be located in urban areas near where participants congregate at the start line and the finishing line.
- 16)** The **organization is the sole party responsible for cleaning up** and removing all waste generated during the race (photo 17). The organization must convey to all runners the prohibition on leaving any litter or waste in the natural setting. Participants who fail to observe this rule will be disqualified.
- 17)** The **organization must assume the obligation to minimize the waste** generated during the race. The following criteria will be taken into account:
  - Avoid the use of plastic glasses or bottles, as well as packaging. Fruit must be peeled in advance.
  - Promote the use of water dispensers. Each participant must have his or her own canteen or drinking vessel to be refilled at the aid stations (photo 18).
  - Implement a system to identify waste with a view to penalizing litterers.



Photo 17. Bag for collecting waste and sign indicating the end of the aid station. Photo by: M. Oñorbe.

18) The organization will ensure **selective collection of waste**. For this purpose, suitable bags or containers will be provided at the start line, finish line and aid stations to facilitate collection (photo 19). In order to facilitate collection, it is recommended to store all waste in containers at the urban areas and at specific locations designated for the concentration of spectators.

▪ **Secondary criteria**

19) It is a good idea for **participants to be members of their respective federation** in order to enjoy all the cover such membership implies.

20) To ensure the safe arrival of all participants, some kind of **control system** must be used at the aid stations and at the finish line, with cards, microchips or other elements.

21) **Facilitate and advertise the use of collective public transport** by the organization and also by participants. The use of high-occupation vehicles will be rewarded.





**Photo 18.** Water station where each runner can refill his or her own bottle. Photo by: M. Oñorbe.



**Photo 19.** Waste separation. Aid station managed by the Majalasná mountain group. Photo by: J. Tabernero.



**Photo 20.** Volunteers from the Candeleda riding club. El Guerrero de Gredos 2015.

If several races coincide over the same course and dates, the establishment of an organized transport system for runners may be a decisive factor for the authorization of a race to the detriment of others.

- 22) **Collaborate with local entities or associations** that are familiar with the protected area for monitoring, inspecting and applying the race's environmental measures (photo 20).
- 23) Urge the organizers to prioritize the purchase of **supplies with eco-labelling**.
- 24) Urge the organizers to prioritize the **consumption of local produce (km 0 products)** (gifts and material for participants), so as to favour the proximity economy and minimize transportation distances (criteria of sustainability, ecological footprint).
- 25) Positive consideration will be given to any offers in which the race participants or the organizing entity itself can provide a **small sum for collaboration in restoration and cleaning works** in the protected area. The collection of this sum could be done through a territorial entity, local mountain clubs or an NGO engaging in environmental volunteering activities in collaboration with the protected area (photo 21).





Photo 21. Work to restore a path in a protected area.

26) The FEDME or EUROPARC-Spain can encourage **environmental certification or environmental quality seals** for races like these. These quality seals will include an environmental assessment accrediting the competition's minimal impact.

### 3.3. The role of participants

As a top priority, during this phase of the race's design, runners must:

- 1) Subscribe the **regulation for competitors / document accepting liability**. This undertaking will be accredited by the delivery of the regulations, signed by the runner, when collecting their race number.
- 2) Undertake to participate, if possible, in the restoration and clean-up of the protected natural space through an **economic contribution**.



Participants in an event at a protected area in the high mountains. Photo by: Cano\_Fotosports

# 4 Phase 2. Execution of the Race

## 4.1. The role of the organization

### 4.1.1. Criteria/guidelines/actions for the execution of the race

In the race execution phase, the organization must assume the following **priority actions**:

- 1) Include the **figure of environmental umpires** or a similar concept to act as the person responsible for monitoring that all the aspects related to the fulfilment of good environmental practices by both the organization and the participants (photos 22). These individuals must be given specific environmental training to be able to conduct an ongoing environmental assessment of the race and ensure it goes ahead correctly. The FEDME has drawn up a training programme for this collective.
- 2) **Locate the race umpires or judges in the most conflictive places** from the point of view of the conservation and fragility of the route chosen (areas with possibility of shortcuts, sensitive areas, wetlands, streams, others, ...). These locations will be decided by agreement with the environmental administration.
- 3) **Umpires and judges will proceed to impose penalties** on those participants who fail to comply with the regulations on environmental issues (running across open country, marking the route, dropping litter, etc.).
- 4) Handle all **communications received**, from runners and the personnel of the protected area regarding any kind of incident during the race.
- 5) Compile useful information for drafting the **report on environmental incidents during the race** (the use of the record sheets in Appendix III will be very useful for data collection). Emphasis must be placed on those environmental components that could be affected most significantly (soil, flora, fauna, water, etc.), including an analysis of the intensity of the noise generated by the event. It is necessary to highlight the value of such attributes as solitude and peacefulness associated with these spaces.





Photo 22. Environment umpires acting at different mountain races. El Guerrero de Gredos.

- 6) In the natural setting, **the production of noise will be avoided** (no PA system). It is not allowed to set off rockets or fireworks, or to include musical groups or loudspeakers for background atmosphere. Such activities should be restricted to the areas around the start line and the finish line and only when these are located in urban areas.
- 7) **Check waste containers regularly** to prevent them from overflowing and to ensure they are used correctly.

Other secondary actions:

- 8) Carry out **awareness raising activities for spectators** (visitors and local population) as well as the runners. To this end a specially prepared area (marquee, stand, etc.) will be set up. These actions must be advertised in advance, for example through the event's web site.
- 9) Organizers should avoid the use of flags or arrows at those points on the route where this might lead to confusion. In such cases, **volunteer personnel** should be used.
- 10) Stress the fact that, if any **food or drink is consumed** outside the aid stations, the dropping of litter along the course is absolutely prohibited and may even be punished by disqualification.

## 4.2. The role of the administration of the protected natural areas

### 4.2.1. Criteria/guidelines/actions when actually holding the race

The protected natural space's management body must take responsibility for the following priority actions during the race:

- 1) Verify the existence of the **figure of environmental umpires or a similar concept and their correct location** along the course of the race, especially at the most sensitive points. The number of environmental umpires will depend on the type of event (the FEDME has established criteria for the following types: Vertical KM, Marathon, Ultra).
- 2) Collaborate with the organizers in the **communication and environmental awareness-raising activities among the race's participants** (runners and spectators) both during the event and in the preliminary advertising and promotion phase. In the case of runners, these actions should take place during the briefing session held the night before the race in order to disseminate the natural and cultural values of the protected area. These events must be understood as an alliance between the space's administrators and the race organizers.
- 3) Verify **compliance with all the specifications and conditions** stipulated and agreed for the race to take place.
- 4) Check that the race is **compatible with other activities**, both at the start and finish lines and also along the course.
- 5) **Facilitate the resources and information needed** for the race to take place correctly.
- 6) Ensure the proper **monitoring and surveillance** of the race by Environmental Agents and Forest Wardens.

### 4.3. The role of participants

As a top priority, during this phase, runners must:

- 1) Attend and participate actively in the **environmental awareness-raising activities** scheduled by the organization and/or the environmental administration.
- 2) Comply with the **regulations for competitors** (photo 23).



Autor: Cano\_Fotosports.



# 5 Phase 3. Conclusion and Final Assessment of the Race

## 5.1. The role of the organization

### 5.1.1. Criteria/guidelines/actions at the conclusion and final assessment of the race

Finally, the organization will have to report on the correct outcome of the race, in accordance with the contents of the technical dossier submitted. For this purpose, it must carry out the following **priority actions**:

- 1) Regardless of the assessment made by the environmental administration, the organizers must draw up a **final assessment report** that must include the following aspects, among others: impacts caused by holding the race (this can be very simple and noted on a data sheet as in Appendix IV), possible unforeseen problems, measures applied, social and economic impact of the event on the surroundings,...
- 2) Remove all of the **material used for signage**, any **structures and equipment** installed for the race, as well as the **waste** generated

Other secondary actions:

- 3) **Conduct satisfaction and assessment surveys** among participants for the purpose of identifying the race's strengths and weaknesses. Both technical and environmental aspects will be evaluated. When runners collect their bags (tshirt, participation diploma, souvenir, ...) might be the ideal moment to ask them to complete and hand in the survey.
- 4) Facilitate the possibility for participants to **report any kind of environmental negligence**, by other participants or the race organization itself through a simple protocol (a designated individual, communication channels, etc.).
- 5) Assess the **environmental footprint of the race** in collaboration with its environmental administration.

## 5.2. The role of the administration of the protected natural areas

### 5.2.1. Criteria/guidelines/actions for the conclusion and final assessment of the race

The protected natural space's management body must take responsibility for the following **priority actuations** once the race is over:

- 1) **Analyse the final assessment report** redrawn up by the organization. It is considered appropriate for the environmental administration to perform its own monitoring of the contents of the final assessment report regarding the course of the race.
- 2) Where the **final assessment report is positive**, and no impacts have been identified on the resources in the protected areas nor on its facilities, refund the bond or guarantee provided by the race organizers, if this has been deposited.
- 3) If any **environmental impacts have occurred to the resources in the protected area**, study the appropriate measures prior to opening a case file for the imposition of a penalty and, in all cases, restore the impacts or undertake the appropriate compensatory or corrective measures.
- 4) In the case of contributions in the form of donations, **undertake volunteering campaigns** implement restoration projects.

## 5.3. The role of participants

During this conclusion and final assessment phase of the race, runners must, as a top **priority**:

- 1) Complete the race **satisfaction-assessment survey** emphasizing its technical and environmental aspects. The survey will be given to participants together with their race number and must be handed in when the race is over and the runners collect their bags (tshirt, participation diploma, souvenir, ...).
- 2) Participate, if suitable channels are in place, in the **restoration and clean-up** of the protected natural space.





Photo by: J. M. Nasarre

## **6 Illustrative Examples of Good Practices**

This section contains, in the form of descriptive sheets, illustrative examples of novel actions and useful or benchmark experiences identified in each of the three phases for the execution of a mountain race (race planning and design, execution, and conclusion and final assessment), for example: technical dossier documents, criteria, regulations for competitors, types of impact measurement, environmental studies, corrective measures, data sheets for monitoring impacts, satisfaction surveys, etc.

<b>Title</b>	<b>Regulations for competitors. Helly Hansen Ultratrail Collserola</b>
<b>Administration/entity</b>	Helly Hansen Ultratrail Collserola by compressport
<b>Document type</b>	Regulations for race competitors
<b>Date</b>	November, 2015
<b>Location</b>	Serra de Collserola Natural Park. Barcelona. Catalonia
<b>Concise description</b>	<p>A very complete and extensive document setting out the conditions governing the participation of runners in the race. The document states that the goal of the event goes beyond mere competition and merges the values of the race with the conservation of the natural environment and the encouragement of healthy sport.</p> <p>The document includes a series of environmental obligations to be fulfilled by runners, who may be disqualified if they fail to comply. For example:</p> <ul style="list-style-type: none"> <li>– Taking shortcuts or shortening the distance to be covered.</li> <li>– Consuming food and drink only at aid stations.</li> <li>– The organization will not provide glasses or bottles, each runner must bring his or her own drinking vessel.</li> <li>– As the race is taking place in a natural park, all runners must mark their ID number legibly with an indelible marker on the wrappings of any energy bars, gels, food bags, etc.</li> <li>– All runners must take their own waste to the aid stations or the finish line in order to deposit it in the containers provided. Any runner who does not dispose of waste correctly or causes littering in an unsuitable area will be disqualified.</li> <li>– Moving away from the paths or trails indicated.</li> <li>– Breaches of the rules of the natural park.</li> </ul>
<b>Strengths</b>	<p>The document stresses that the event is taking place in a protected natural space and includes the rules established by the park for sports events of this type. This document must be signed by all participants.</p>
<b>Weaknesses</b>	The document must include additional environmental obligations.
<b>Human or material resources</b>	Not specified on the part of the organization.
<b>Contact</b>	Email: <a href="mailto:info@utcollserola.com">info@utcollserola.com</a> ; <a href="https://www.facebook.com/lanovafita">https://www.facebook.com/lanovafita</a>
<b>Further information</b>	<a href="http://www.utcollserola.com">www.utcollserola.com</a>



<b>Title</b>	<b>Criteria for regulating sports events in the Sierra Nevada Natural Space</b>
<b>Administration/entity</b>	Department of the Environment and Territorial Organization. Andalusian Regional Government
<b>Document type</b>	Race regulation criteria
<b>Date</b>	2015
<b>Location</b>	Sierra Nevada Natural and National Park. Granada and Almería. Andalusia
<b>Concise description</b>	This document drafted by the Sierra Nevada Natural Space divides the park into several areas depending on their fragility and establishes criteria with respect to routes, the type of course (on roads, authorized lanes and circuits, paths and mixed courses), the maximum number of participants, timings, location of start lines, finish lines and aid stations, calendar, monitoring and assessment protocols, documentation to be submitted, etc.
<b>Strengths</b>	The document is consistent with the regulations contained in current PORN and PRUG plans. It has been submitted to the Natural Space's Participation Council and therefore has achieved a wide-ranging consensus among the bodies represented there.
<b>Weaknesses</b>	Scant presence of studies on the positive impact on the local social and economic context.
<b>Human or material resources</b>	Four technical experts from the protected area during eight working days.
<b>Contact</b>	Javier Sánchez Gutiérrez. Sierra Nevada Natural Space Email: franciscoj.sanchez@juntadeandalucia.es
<b>Further information</b>	<a href="http://www.ventanadelvisitante.es">www.ventanadelvisitante.es</a>

<b>Title</b>	<b>Map of Paths for Organized Activities (MACAO) at the Parc del Foix</b>
<b>Administration/entity</b>	Consortium of the Parc del Foix
<b>Document type</b>	Technical regulation document
<b>Date</b>	January, 2014
<b>Location</b>	Parc del Foix. Barcelona
<b>Concise description</b>	<p>In view of the growing demand for permits and authorizations to conduct organized activities such as competitions and BTT rallies, foot races and rallies, within the scope of the Parc del Foix, each of which implied the detailed study of the paths and trails to be used, the park's management and its conservation specialist drafted a working document setting out all the paths and trails suitable for each type of activity according to their criteria, including paths with temporary regulations depending on the breeding habits of certain protected fauna.</p> <p>The resulting document was discussed, studied and amended at subsequent meetings with the Catalan Regional Government's Corp of Rural Agents, natural entities in the district, fauna protection specialists from the Catalan Regional Government's Environment Department, affected town councils and, of course, the personnel from the park, who are the people who best know the territory.</p> <p>Once consensus was reached regarding the document, a meeting was called for all of the entities involved with organizing excursions, conservationists, owners and other interested parties with their headquarters in any of the municipality in and around the park in order to present the new scenario to them. There were, logically some discrepancies and some agreements but nothing was changed in the document presented and it was agreed that it would be in force as it was during the whole of 2014, during which time complaints, suggestions and proposed amendments were collected, studied by the entities promoting the map for application, if appropriate, the following year.</p> <p>The same procedure has been followed in subsequent years, with the entities being convened for a meeting at the start of the year to hear about the new document with the corresponding variations on the basis of the suggestions received and explaining why others had been rejected.</p> <p>The map (MACAO) in force each year can be viewed on the park's web site, in the section entitled "requesting authorization for activities", so the first thing applicants must look at is whether they meet the requirements of the MACAO. If they do not, they must change their course in order to proceed with their applications.</p>
<b>Strengths</b>	<p>It makes the handling of authorizations far easier for the specialists in public use.</p> <p>It already has the agreement of the competent administrations: Rural Agents, the Environment Department, town councils and of course the park.</p> <p>Every year, it collates the suggestions by entities organizing excursions, conservationist groups and, if appropriate, owners, hunters, etc.</p> <p>It keeps the most fragile and sensitive areas of the park definitively out of the circuit of organized activities.</p> <p>The implementation of this document was well accepted after the efforts made to explain it correctly and with the necessary support.</p>

<b>Weaknesses</b>	It is impossible to keep all parties concerned happy all the time.  It so happens that one of the entities organizing excursions in the area, with a certain degree of presence in the district, has tried to exert political and media pressure on the park. However, the good initial consensus has, for the time being, halted this kind of problem.
<b>Human or material resources</b>	Technical personnel and park wardens for the initial drafting and annual reviews of the map. The other administrations that have been invited to provide input have also made their resources available.
<b>Contact</b>	Email: <a href="mailto:p.foix@diba.cat">p.foix@diba.cat</a>
<b>Further information</b>	<a href="http://parcs.diba.cat/web/foix">http://parcs.diba.cat/web/foix</a>

<b>Title</b>	<b>Environmental reports on the official circuit for mountain races in Madrid in 2015</b>
<b>Administration/entity</b>	Madrid Mountain Activities Federation
<b>Document type</b>	Environmental impact reports
<b>Date</b>	2015
<b>Location</b>	Sierra de Guadarrama. Including four races in the Sierra de Guadarrama National Park + one on its periphery (Pico Mondalindo). Madrid Region
<b>Concise description</b>	Environmental impact assessment of the competitions on the official circuit for mountain races by the Madrid Mountain Activities Federation with a view to obtaining the "Eco-Sustainable Race" seal of approval
<b>Strengths</b>	Objective assessment of the impacts generated by competitions
<b>Weaknesses</b>	Ideally, it would be necessary to audit the races in the years ahead. Difficulties for funding this
<b>Human or material resources</b>	One biologist (as co-ordinator). Support of the Ecology Department at the Autonomous University in Madrid (one lecturer + two final-year students) + two umpires from the Madrid Mountain Activities Federation
<b>Contact</b>	Madrid Mountain Activities Federation Tel.: 915 273 801 Web: <a href="http://www.fmm.es">http://www.fmm.es</a>
<b>Further information</b>	<a href="http://www.fmm.es/actividades-de-montana/2013-10-22-12-12-24/noticias/item/1644-informes-ambientales-del-circuito-oficial-madrile%C3%B1o-de-carreras-por-monta%C3%B1a">http://www.fmm.es/actividades-de-montana/2013-10-22-12-12-24/noticias/item/1644-informes-ambientales-del-circuito-oficial-madrile%C3%B1o-de-carreras-por-monta%C3%B1a</a>

<b>Title</b>	<b>Good practices document. Barcelona Provincial Council Parks Network</b>
<b>Administration/entity</b>	Barcelona Provincial Council Parks Network
<b>Document type</b>	Good practices document. Conservation analysis
<b>Date</b>	October, 2015
<b>Location</b>	Parc del Montnegre i el Corredor. Barcelona. Catalonia
<b>Concise description</b>	<p>The most valuable and/or fragile places and elements were identified:</p> <ul style="list-style-type: none"> <li>– Nesting areas for birds of prey</li> <li>– Torrents and wetlands</li> <li>– “Carenero” sectors</li> <li>– Flora and habitats</li> <li>– Monitoring areas</li> <li>– Geological elements</li> <li>– Architectural heritage</li> </ul> <p>Three categories were established depending on value and/or vulnerability, identified by a traffic light system:</p> <ul style="list-style-type: none"> <li>● Highly fragile areas</li> <li>● Sensitive areas</li> <li>● Rest of the park</li> </ul>
<b>Strengths</b>	Initiative actively seeking to draw up a joint proposal between managers and entities organizing public use activities, so that these activities are compatible with the conservation of the natural and cultural heritage of the parks, safeguarding their quality and harmonizing interests in protected natural areas.
<b>Weaknesses</b>	<p>Applied research is required into the effects and the interaction of recreational uses and other uses with the fauna and flora, in order to be able to manage these uses correctly together with the access of visitors to the natural areas.</p> <p>In the drafting of the document, a total of 16 people and entities have taken part, of whom only three were entities organizing activities, plus the park’s technical team.</p>
<b>Human or material resources</b>	Six specialists.
<b>Contact</b>	Email: <a href="mailto:navarretega@diba.cat">navarretega@diba.cat</a>
<b>Further information</b>	<a href="http://parcs.diba.cat/web/montnegre/inici">http://parcs.diba.cat/web/montnegre/inici</a>

<b>Title</b>	<b>Awareness-building among participants and making courses compatible on the “Quebrantamúsculos” Trail</b>
<b>Administration/entity</b>	Organizer: Sierra de Castril Mountain Club  Administration: Department of the Environment and Territorial Organization. Andalusian Regional Government
<b>Document type</b>	Technical dossier, Safety and Emergency Plan and Race Regulations
<b>Date</b>	2015
<b>Location</b>	Sierra de Castril Natural Park. Granada. Andalusia
<b>Concise description</b>	<p>At the briefing session, a detailed description of the environmental and cultural values of the protected area was given by the Administration's technical personnel with particular attention for the plan to re-introduce lammergeiers. In total, an hour was spent assessing the environmental aspects of the race and the most suitable rules of conduct to minimize the impact on the environment.</p> <p>The regulations foresee the disqualification of competitors from the race in the event of littering.</p> <p>The race design has been agreed with the organizer so that the multiple routes inside the quite small Natural Park are compatible with its conservation.</p> <p>Finally, an assessment was made of the degree of fulfilment of the conditions by visiting the course after the event was over.</p>
<b>Strengths</b>	<p>Good collaboration by the organizing entity, Castril town council and the Department of the Environment.</p> <p>As it is a small natural park with few visitors, compared to the average in Andalusia, holding this race contributes to make the park better known and to attract visitors who have not only enjoyed a sporting day out but have also had the chance to discover the unique features of this territory and its crucial role for the re-introduction of lammergeiers.</p>
<b>Weaknesses</b>	Scant presence of monitoring and impact studies of both the negative impact on the natural surroundings, and also the positive effect on the local social and economic context.
<b>Human or material resources</b>	Three technical experts for three days
<b>Contact</b>	José María Montoro. Sierra de Castril Natural Park Email: josem.montoro@juntadeandalucia.es
<b>Further information</b>	<a href="http://www.ventanadelvisitante.es">www.ventanadelvisitante.es</a>

<b>Title</b>	<b>Technical report on the network of trails and paths certified for sporting events</b>
<b>Administration/entity</b>	Consortium of the Serra de Collserola Natural Park
<b>Document type</b>	Technical report
<b>Date</b>	January, 2016
<b>Location</b>	Serra de Collserola Natural Park. Barcelona. Catalonia
<b>Concise description</b>	<p>Implementation of new criteria for the regulation of physical and sporting events at Collserola.</p> <p>Definition of the map of trails and paths on which collective events could be authorized; and definition of the maximum number of participants in these events based on the type of race, time of year, area of the natural park, etc.</p>
<b>Strengths</b>	<p>Conserve areas of the park with high levels of footfall.</p> <p>Reduce and stabilize the increase in races and events.</p> <p>Make the citizenry aware of the benefits to the natural park's ecosystem and the necessary health of the park to generate these benefits, which will have repercussions on the health of the inhabitants of Barcelona Metropolitan Area.</p>
<b>Weaknesses</b>	<p>Difficulties for its implementation, due to the social pressure by the sector and the political pressure of some town councils.</p> <p>Lack of human resources to devote full-time to this strategy.</p>
<b>Human or material resources</b>	A part-time technical team of three people for both the internal technical work and for the participatory external work with entities organizing excursions, town councils and the Consortium for the Serra de Collserola Natural Park.
<b>Contact</b>	Isabel Raventos Gastón, Consortium for Parc de Collserola. Email: iraventos@parccollserola.net
<b>Further information</b>	<a href="http://www.parcnaturalcollserola.cat/pages/autoritzacions-d-activitats">http://www.parcnaturalcollserola.cat/pages/autoritzacions-d-activitats</a> .



<b>Title</b>	<b>Criteria for the regulation of sports races</b>
<b>Administration/entity</b>	Regional Governments of Madrid and Castilla y León
<b>Document type</b>	Technical document on regulation criteria
<b>Date</b>	2015
<b>Location</b>	Sierra de Guadarrama National Park, Regional Government of Madrid and Castilla y León
<b>Concise description</b>	<p>The document sets out the growing demand for sporting events in the national park and therefore the need to establish a regulatory framework. The park's commitments to visitors and to conservation are then set out. Sporting events are considered as extraordinary activities under the National Park Network Master Plan and therefore require written authorization from the administration.</p> <p>The criteria for authorizing sports events are listed below:</p> <ul style="list-style-type: none"> <li>- Course and timing plan</li> <li>- Complementary measures for the conservation of the natural setting</li> <li>- Annual calendar for sports events</li> <li>- Establishment of dates for submitting applications for races</li> <li>- Priorities for the authorization of races</li> <li>- Number of participants</li> <li>- Sites for the races' start lines and finish lines</li> <li>- Bonds and guarantees</li> </ul>
<b>Strengths</b>	<p>Obligation on the part of the race organizers to contemplate complementary measures for the conservation of the natural setting to ensure that the impacts are negligible.</p> <p>Establishment of a calendar for sports competitions throughout the year. Some dates are reserved so that no races will be held then due to reasons of incompatibility of uses.</p> <p>Establishment of a maximum number of participants per race.</p> <p>Establishment of bonds and guarantees for the repair of damage to the protected area.</p> <p>A template has been designed for applying for authorization to hold sporting events and can be downloaded from the park's web site.</p>
<b>Weaknesses</b>	<p>It needs to specify the environmental criteria in greater detail.</p> <p>It needs to close a definitive calendar at the start of the year.</p>
<b>Human or material resources</b>	<p>Personnel from the respective National Parks.</p> <p>Cartography and environmental maps from both administrations.</p>
<b>Contact</b>	<p>Department of the Environment, Local Administration and Territorial Organization. Madrid Regional Government. Tel.: 91 438 22 00</p> <p>Segovia Territorial Service for the Environment. Regional Government of Castilla y León Tel.: 921 417 239</p>
<b>Further information</b>	<a href="http://parquenacionalsierraguadarrama.es/administracion/tramites">http://parquenacionalsierraguadarrama.es/administracion/tramites</a>

<b>Title</b>	<b>Design of the course for a race with multiple routes. Helly Hansen Ultratrail Collserola</b>
<b>Administration/entity</b>	Helly Hansen Ultratrail Collserola by compressport
<b>Document type</b>	Design of multiple routes for a mountain race
<b>Date</b>	November 26th, 2015
<b>Location</b>	Serra de Collserola Natural Park, Barcelona. Catalonia
<b>Concise description</b>	Design of a race with multiple routes (10, 23, 38 and 85 km) inside the natural park



<b>Strengths</b>	<ul style="list-style-type: none"> <li>– The shorter distances are sections of the longest route.</li> <li>– The start line and the finish line are located inside an urban area.</li> <li>– The number of participants will be cut in future years: 2,000 in 2015, 1,000 in 2016 and 500 in 2017.</li> </ul>
<b>Weaknesses</b>	<ul style="list-style-type: none"> <li>– Lack of control over the runners on the day of the event. There are not enough personnel to verify all of the itinerary.</li> </ul>
<b>Human or material resources</b>	A team of three people working full-time for both the internal technical work and for the participatory external work with entities organizing excursions and town councils.
<b>Contact</b>	Isabel Raventos Gastón, Consortium for Parc de Collserola Email: iraventos@parccollserola.net
<b>Further information</b>	<a href="http://www.parcnaturalcollserola.cat">http://www.parcnaturalcollserola.cat</a>

<b>Title</b>	<b>Pilot environment assessment study of the “Demandafolk” mountain race</b>
<b>Administration/entity</b>	Living Territories Association
<b>Document type</b>	Environmental impact report
<b>Date</b>	2014
<b>Location</b>	Sierra de la Demanda. Tolbaños de Arriba, Burgos. Castilla y León
<b>Concise description</b>	Pilot environment assessment study of the “Demandafolk” mountain race
<b>Strengths</b>	Objective evaluation of the impacts generated by the competitions.
<b>Weaknesses</b>	Very short race mostly covering forest trails so it hardly generates any impacts (cannot be extrapolated to other races).  Ideally, it would be necessary to audit the race in the years ahead.
<b>Human or material resources</b>	One biologist
<b>Contact</b>	“Asociación Territorios Vivos”. Calle Artistas, 26 28020 Madrid Email: info@territoriosvivos.org
<b>Further information</b>	<a href="http://www.magrama.gob.es/es/ceneam/recursos/pag-web/evaluacion-ambiental-carreras-montana.aspx">http://www.magrama.gob.es/es/ceneam/recursos/pag-web/evaluacion-ambiental-carreras-montana.aspx</a>

<b>Title</b>	<b>Spectators' guide to a mountain race. Helly Hansen Ultratrail Collserola</b>
<b>Administration/entity</b>	Helly Hansen Ultratrail Collserola by compressport
<b>Document type</b>	Spectators' guide
<b>Date</b>	November 26th, 2015
<b>Location</b>	Serra de Collserola Natural Park. Barcelona. Catalonia
<b>Concise description</b>	Developed from the information on the web site. It offers a PDF document with the race's web site, including the basic documentation for the transit areas provided for the general public with timings, location, map, ...



Nombre de etapa / Stage Name	Distancia / Distance	Altitud / Altitude	Inicio / Start	Fin / End
7	Barcelona - Sant Joan de Vilatorrada	45.450m (15.235m)	08:00	10:00
8	Barcelona - Sant Joan de Vilatorrada	45.450m (15.235m)	08:00	10:00
9	Sant Joan de Vilatorrada - Sant Joan de Vilatorrada	45.450m (15.235m)	08:00	10:00
10	Sant Joan de Vilatorrada - Sant Joan de Vilatorrada	45.450m (15.235m)	08:00	10:00
11	Sant Joan de Vilatorrada - Sant Joan de Vilatorrada	45.450m (15.235m)	08:00	10:00
12	Sant Joan de Vilatorrada - Sant Joan de Vilatorrada	45.450m (15.235m)	08:00	10:00
13	Sant Joan de Vilatorrada - Sant Joan de Vilatorrada	45.450m (15.235m)	08:00	10:00

<b>Strengths</b>	The flow of the general public is planned and concentrated at the picnic areas.
<b>Weaknesses</b>	Scant human resources to monitor the correct location of the public.
<b>Human or material resources</b>	A team of three people working full-time for both the internal technical work and for the participatory external work with entities organizing excursions and town councils.
<b>Contact</b>	Isabel Raventos Gastón, Consortium for Parc de Collserola Email: iraventos@parccollserola.net
<b>Further information</b>	<a href="http://www.parcnaturalcollserola.cat">http://www.parcnaturalcollserola.cat</a>

<b>Title</b>	<b>Document with good practices in excursions to the Montseny Natural Park</b>
<b>Administration/entity</b>	Montseny Natural Park. Barcelona Provincial Council
<b>Document type</b>	Good practices document
<b>Date</b>	July, 2013
<b>Location</b>	Montseny Natural Park. Barcelona and Girona. Catalonia
<b>Concise description</b>	<p>The park kicked off a participatory process to bring about a series of recommendations for the organization of mountain races after it had identified a considerable increase in recent years.</p> <p>All the entities organizing excursions who had their headquarters in any of the 18 municipalities of the park were invited to attend and a large number of them took part. The result was a recommendations document that has served as the basis for the drafting of the good practices document for excursion activities in the Provincial Council's Natural Parks Network, recently approved and validated by the FEEC (Catalan Excursion Federation).</p> <p>Following its approval at the end of 2013, meetings have continued to be held with the collaborating entities for the assessment and evaluation of the document and its functionality.</p> <p>The meetings are highly participatory and work is currently under way with the Association of Owners in Montseny Park to reach a consensus on the communication of applications and the processing of permission by the owners.</p> <p>The last meeting also considered it appropriate to invite the Association of Montseny Tourism-Related Companies to collaborate to help these sporting events to represent a driving force for economic development in the territory.</p> <p>In addition, work is also progressing on a self-assessment and self-evaluation document for the evaluation of the races in order to know if they are complying with the criteria contained in the document.</p>
<b>Strengths</b>	Since it started, this joint effort for the preparation of the document has meant that the entities taking part in the meetings have taken it on board as their own document, helping to disseminate its contents and complying with its recommendations. In this way, they are also helping to detect companies or other entities that do not comply with the document.
<b>Weaknesses</b>	<p>Ensuring fulfilment of the document's recommendations.</p> <p>Preventing the participatory feeling among the entities and the park from weakening.</p> <p>There is no regime for imposing penalties on entities that do not comply with the criteria; nothing happens to them.</p>
<b>Human or material resources</b>	Technical personnel from the park for the preparation and conduct of the meetings.
<b>Contact</b>	Email: p.montseny@diba.cat
<b>Further information</b>	<a href="http://parcs.diba.cat/documents/155678/5243193/DocumentBonesPractiques.pdf/82a47a71-ff0c-48d8-8c4e-6851006ac18f">http://parcs.diba.cat/documents/155678/5243193/DocumentBonesPractiques.pdf/82a47a71-ff0c-48d8-8c4e-6851006ac18f</a>


<b>Title</b>	<b>Conditions for authorizing a mountain race in the Cadí- Natural Park Moixeró</b>
<b>Administration/entity</b>	Cadí-Moixeró Natural Park. Catalanian Regional Governmenta
<b>Document type</b>	Conditions for authorizing a sporting event
<b>Date</b>	2010
<b>Location</b>	Cadí-Moixeró Natural Park. Barcelona, Lleida and Girona. Catalonia
<b>Concise description</b>	This document provides guidance on the conditions and characteristics to be borne in mind in any application for the authorization of a mountain race in the natural park. It includes conditions that the race must comply with in terms of itineraries, time of year, impacts on the environment, location of checkpoints + start line + finish line, social and economic impacts, increases in footfall, permits, behaviour of runners, etc.
<b>Strengths</b>	It establishes the need for all runners to remain on the network of paths already signposted; sets out improvement actions to be carried out by the organizers in the protected area; foresees possible negative impacts and how to avoid them.
<b>Weaknesses</b>	Understanding of the impacts on the path itself must be improved; quantify the waste generated by the passage of runners; increase the awareness among runners and organizers about the negative impacts that may be generated on the surroundings.
<b>Human or material resources</b>	The natural park's management team and rural agents as the stewards monitoring compliance with the conditions established.
<b>Contact</b>	Jordi Garcia Petit, director of the Cadí-Moixeró Natural Park Calle La Vinya, 1 (08695)-Bagá. Barcelona. Email: jgarciap@gencat.cat
<b>Further information</b>	<a href="http://parcsnaturals.gencat.cat/cadi">http://parcsnaturals.gencat.cat/cadi</a>



<b>Title</b>	<b>Maximum number of participants by type of race or activity</b>	
<b>Administration/entity</b>	Consortium for the Serra de Collserola Natural Park	
<b>Document type</b>	Technical document on a proposal for a maximum number of participants per type of race or activity	
<b>Date</b>	2015	
<b>Location</b>	Serra Collserola Natural Park. Barcelona. Catalonia	
<b>Concise description</b>	<b>Activity and course</b>	<b>Max. n° of participants</b>
	Competitive races, more than 20 km, 80 % on trails, in developed perimetral and semi-natural areas	500 people
	Competitive races, up to 20 km, run entirely on trails	500 people
	Competitive races, up to 20 km, not run entirely on trails	300 people
	Mass hikes, up to 10 km, entirely along trails	500 people
	Mass hikes, up to 10 km, not entirely along trails	300 people
	Bicycle meets	200* people
	* From 25 participants and above, the start has to be staggered	
	Hikes for children	2.000 people
	Barcelona Magic Line	1.000 people
<p>It is necessary to monitor the participants in the different races passing through the same route and/or coinciding stretches of natural areas, so as not to exceed in any case the cap of 3,000 participants/km in a year. Once this upper limit is reached, the course would be closed for further races until the following year.</p> <p>Exceptionally, it will be possible to reach 5,000 participants per annum only on courses around the perimeter of the park and/or in developed semi-natural areas (for instance the Passeig de les Aigües).</p> <p>If approval is given for night-time activities, the number of participants in such races must not exceed 150 people.</p>		
<b>Strengths</b>	Criteria agreed with the town councils in the natural park.	
<b>Weaknesses</b>	It is still necessary to perform an assessment of whether these participation figures are the most suitable.	
<b>Human or material resources</b>	A team of three people working full-time for both the internal technical work and for the participatory external work with entities organizing excursions and town councils.	
<b>Contact</b>	Isabel Raventos Gastón, Consortium for Parc de Collserola Email: iraventos@parccollserola.net	
<b>Further information</b>	<a href="http://www.parcnaturalcollserola.cat">http://www.parcnaturalcollserola.cat</a>	

<b>Title</b>	<b>Changing the starting point and route on the “Matagalls- Montserrat” race. Montseny Natural Park</b>
<b>Administration/entity</b>	Montseny Natural Park. Barcelona Provincial Council
<b>Document type</b>	Corrective measure
<b>Date</b>	August, 2015
<b>Location</b>	Montseny Natural Park. Barcelona and Girona. Catalonia
<b>Concise description</b>	<p>The Matagalls-Montserrat event is an 85 km endurance hike, very popular all over Catalonia, organized by the Gracia Excursion Centre for a large number of participants (3,000) and this year is going to see its 37th edition. Its starting point was the summit of Matagalls, one of the locations with particular protection within the park because of its ecological and landscape characteristics.</p> <p>Since the 1990s, conversations have been held between the park and the organizers to stop the event from starting at the peak because it is a sensitive location. It was agreed to start from Collformic, so that the hike no longer included the summit.</p> <p>The next starting location was a place with car parking problems and the transit of runners and the people accompanying them was very complicated at the start line, causing situations of chaos.</p> <p>Since last year, 2015, after a series of meetings with the organizers, it has been decided to change the route substantially and to start the hike in an urban setting, with all the advantages this entails.</p>
<b>Strengths</b>	<p>The good attitude of the organization and the park for the change of route.</p> <p>Starting from an urban location relieves the pressure on the park of having 3,000 participants on a mountain top at the same time and can favour the economic activity of the urban area itself.</p>
<b>Weaknesses</b>	The repercussions of the change effected has not yet been evaluated.
<b>Human or material resources</b>	Technical personnel from the natural park.
<b>Contact</b>	Email: <a href="mailto:p.montseny@diba.cat">p.montseny@diba.cat</a>
<b>Further information</b>	<a href="http://parcs.diba.cat/web/montseny">http://parcs.diba.cat/web/montseny</a>

<b>Title</b>	<b>Economic compensations by mountain races in the Cadí-Moixeró Natural Park</b>
<b>Administration/entity</b>	Cadí-Moixeró Natural Park. Catalanian Regional Government
<b>Document type</b>	Management improvement actions starting from actions or economic contributions to the park through the most important mountain races
<b>Date</b>	2012 to 2016
<b>Location</b>	Cadí-Moixeró Natural Park. Barcelona, Lérida and Girona. Catalonia
<b>Concise description</b>	<p>No economic compensation is required from small-format mountain races organized by entities arranging excursions and with few participants, just actions to improve the paths they themselves use for their events and forming part of the park's path network.</p> <p>A dual system has been established only for races organized by for-profit companies and a considerable participation by runners. This consists in negotiating a fixed economic contribution to be provided by the company and used to finance the maintenance of the park's path network, plus a variable amount voluntarily contributed by the runners themselves to help with the protected area's management. In this case, the system consists in including check box on the registration form so that each runner can mark a contribution of € 1 or € 2 towards a specific management project at the natural park. In 2015, the amount collected through this concept was similar to that paid by the company organizing the event, namely the Ultra Pyrenees Race, the only one in which this system has been implemented.</p> <p>Once the race is over and the total amount collected from both concepts is known, a decision is taken on which project should be carried out among the options offered to the runners (for example, an improvement in a high-interest path). A company is then found to carry out the work under the technical supervision of natural park. The organizing company is in charge of hiring the company and pays for the project directly.</p>
<b>Strengths</b>	<p>It enables the runners to be involved in the management and improvement of different aspects of the natural park, making them aware of the need to ensure its conservation and proper use.</p> <p>It does not involve any kind of administrative processing, making the procedure simpler.</p> <p>It allows the park's management capacity to be increased at a time of tight budgets.</p> <p>It enables a direct benefit from the races on the protected natural space to be materialized.</p>
<b>Weaknesses</b>	<p>It requires the establishment of a trust-based relationship between the natural park's managers and the race organizers.</p> <p>The procedure does not comply with the rules governing the Administration, which currently do not exist.</p>
<b>Human or material resources</b>	One part-time technical co-ordinator from the natural park's personnel.
<b>Contact</b>	Jordi García Petit. Director of the Cadí-Moixeró Natural Park Email: jgarciap@gencat.cat
<b>Further information</b>	<a href="http://parcsnaturals.gencat.cat/cadi">http://parcsnaturals.gencat.cat/cadi</a>

<b>Title</b>	<b>Mountain races as a display case for its natural and cultural values</b>
<b>Administration/entity</b>	Town council of Candeleda/El Guerrero de Gredos. CD ARETHE Candeleda sport club
<b>Document type</b>	Educational actions about a mountain race: messages on the social media and information on the race's web site
<b>Date</b>	September, 2016 (second edition)
<b>Location</b>	Candeleda. Ávila. Castilla y León
<b>Concise description</b>	<p>An attempt to promote responsible sports-related tourism in the region by revealing to participants the natural values of the Sierra de Gredos as well as the cultural, architectural and historical resources dotted around its landscapes.</p> <p>On the web site and social media, messages, photos and illustrations are published with the cultural, architectural or natural elements of significance that the runners will encounter while participating along with a short explanatory text.</p> <p>In addition, different collectives in the municipality take part in the race's organization as volunteers, offering their local products and services in the form of prizes.</p>
	
<b>Strengths</b>	<p>The event's social media and web site are straightforward tools for spreading messages to the general public interested in attending the race.</p> <p>The residents of Candeleda are proud of their race and the benefits it brings to the town.</p>
<b>Weaknesses</b>	
<b>Human or material resources</b>	It requires few human and economic resources.
<b>Contact</b>	Email: <a href="mailto:info@elguerrerodegredos.com">info@elguerrerodegredos.com</a>
<b>Further information</b>	<a href="http://elguerrerodegredos.com/">http://elguerrerodegredos.com/</a>

<b>Title</b>	<b>Diagnosis of the effects of mountain races on protected natural areas</b>
<b>Administration/entity</b>	Catalonian Regional Government. Department of Territory and Sustainability
<b>Document type</b>	Environment impact study
<b>Date</b>	December, 2015
<b>Location</b>	Cap de Creus Natural Park, Garrotxa Volcanic Area Natural Park and Cadí-Moixeró Natural Park. Gerona. Catalonia
<b>Concise description</b>	<p>Environmental study of the effects/impacts of mountain races on the parks involved. The information obtained has enabled certain basic criteria to be established for the drafting of the mandatory environmental reports on mountain races.</p> <p>The same study was carried out in all three parks. A total of three studies were carried out.</p>
<b>Strengths</b>	<p>Study of the real impact produced by a mountain race. The geology, hydrogeology and biotic setting were all analysed.</p> <p>It has been possible to quantify the impacts produced.</p> <p>Recommendations to be taken into account are given for the moment when authorizing a race and establishing its conditions.</p>
<b>Weaknesses</b>	The documents conclude that it would be a good idea to conduct a more specific study into some of the parameters to point down definitively the impact caused.
<b>Human or material resources</b>	The contract is outsourced to an environmental service company 6,037 €/study
<b>Contact</b>	<p>Victoria Riera (Cap de Creus Natural Park) Email: victoria.riera@gencat.cat</p> <p>Xavier Puig (Garrotxa Volcanic Area Natural Park) Email: wfxpuig@gencat.cat</p> <p>Jordi García (Cadí-Moixeró Natural Park) Email: jgarciap@gencat.cat</p>
<b>Further information</b>	These studies have not yet been made public





**Reference material of interest**  
**Glossary**  
**Appendices**



Photo by: FEDME.

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# Glossary

**Organized activities in natural settings (according to this guide).**

Any kind of collective organized activity taking place in natural spaces where the participants travel on foot over an itinerary established by the organizers, regardless of the distance or difficulty due to the slope of the course.

**Environmental umpire.** Personnel provided by the event organizer to oversee the proper fulfilment of the measures established in the event's environmental report. This personnel must receive specific training to carry out this task.

**Authorization.** Administrative outcome making it possible to carry out an activity, for example, a mountain race, under pre-established constraints. Each environmental administration will have its own protocols and cases for which an application is required. Authorizations must be requested by the race organizer providing all the information indicated in each case by the environmental administration.

**Aid station.** Area defined by the organizers for the supply of food and drink to runners. Depending on the type of aid station, there may also be a medical post, a rest area or an official withdrawal desk for runners unable to complete the event. It is also used as the collection point for potential waste generated along the route.

**Arrows.** Elements used to mark the route. For mountain races, it is necessary to choose high-visibility materials that will not deteriorate due to the inclement weather, and that are easy to collect afterwards without leaving any marks on the surroundings.

**Briefing.** Technical meeting held before the start of the race (the night before) for the organizers to explain to the runners the background to the itinerary, the location of the aid stations and food products, location of first aid posts, a general description of the race (main difficulties, precautions, type of terrain, risks), categories and prizes available, timings, regulations for competitors and information of interest for the general public. On occasions, a description is given of the surrounding through they will be competing.

**Annual race calendar.** A systematic tool used by the protected area's management body for the chronological organization of mountain races throughout the year. It enables the quantification, planning and appropriate management of the demands made on the space for holding races requiring authorization.

**Capacity.** Maximum number of runners and spectators a specific area can withstand combining the lowest possible environmental impact and the highest possible level of satisfaction for runners, spectators and other users of the space.

**Orientation race.** Competition in a natural setting for the purpose of locating specified points on the terrain with the help of a map and a compass. Multiple disciplines: orientation on foot ("O-Pie") and Orientation on a mountain bike ("O-BTT").

**Mountain race.** A sporting speciality involving races over low, medium and high mountains, in summer and winter, designed to cover the route in the shortest time possible and with the maximum respect for the natural surroundings.

**Ultra Trail.** An endurance race with a minimum distance of 80 Km and a total overall climb of 4,000 metres between the start and the finish lines.



**Debriefing.** Technical meeting between the event organizer and the administrations responsible for assessing the outcome of the event, analysing unforeseen circumstances, possible impacts and refunding any bonds or guarantees deposited.

**Document identifying and correcting impacts.** A key section within the technical dossier with the aim of identifying and minimizing the possible impacts caused by holding the event on the protected area, their respective weighting, and the definition of the measures necessary to reduce these impacts.

**Duathlon.** Individual endurance event combining two different disciplines; cycling (on road or mountain bikes) and foot races.

**Bond.** Sum of money that the event organizer has to provide to the administration to cover, in the event of any breach of the conditions or any failure to comply with the environmental report, any costs that may be required to remedy the impact caused.

**Night runs.** Events taking place during the period of time elapsing between one hour before sunset and one hour after sunrise.

**Environmental footprint.** Measure of the consumption of resources generated by an event over the course of its life cycle: planning and design, execution and conclusion. This will measure the energy consumed (including transport), the water consumed and the waste generated.

**Final assessment report.** A report drawn up at the end of the race and after applying the measures proposed. It must include the impacts caused by holding the race and possible unforeseen problems. An assessment will be made of the residual impact, the efficacy of the measures adopted and proposals for improvements in future editions. This document will be essential for holding any further events.

**Hike.** Organized activity in which participants cover a pre-determined route on foot.

**Corrective measure.** Action designed to correct negative impacts or environmental effects caused by holding a mountain race.

**Technical dossier.** Technical document providing a general description of the event, the document identifying and correcting impacts and the regulations for competitors. This dossier must be submitted by the entity organizing the event to the administration responsible for managing the protected area.

**Organizer.** Natural or legal person promoting a mountain race, bringing in runners and taking responsibility for managing it, whether for a profit or for other purposes.

**Penalty.** Sanction imposed on a runner failing to comply with any of the environmental obligations set out in the regulations for competitors.

**Adventure raid.** This is a combination of different disciplines such as orienteering, mountain biking, rafting, climbing, ziplines, canoeing, etc., carried out over a route that is kept secret until the start of the event so that the participants have to call on their orienteering skills.

**Regulations for competitors.** Regulations setting out all the information about the obligations and duties of the competitors, including environmentally-friendly behaviour.

**Resilience.** Ability of the environment to absorb disturbances without significantly altering its structural and functional characteristics, i.e. returning to its original state after the disruption as stopped.

**Third-party liability insurance policy.** A contract paid for by the insured whereby the Insurer undertakes to cover a risk with the obligation to compensate any third parties for the damage caused by any of the events foreseen in the policy for which the insured may be liable under civil law.

**Triathlon.** An event including swimming, cycling (on road or mountain bikes) and foot races that may, in many cases, involve mountains.

**Spectator areas.** Places set aside for spectators attending an event. They must be correctly indicated, easily accessible, far away from the most sensitive areas, and contain information about the expected timings for the athletes to pass that point. Where possible, they should be located close to an aid station.



# Appendices

## Appendix I. Types of impact according to their characteristics.

Impact evaluation can be done from the perspective of the degree of their reversibility (degree of resilience or plasticity of the surroundings).

### Classification of possible types of impacts according to their characteristics

- *Constant impact*: when the impact has already been detected in previous years.
- *Accumulated impact*: an impact that grows over a period of time as a consequence of holding the same event over the same route in the course of several years.
- *Foreseeable impact*: The impact is likely to occur due to the event being held.
- *New impact*: when the impact arises through the holding of the race (installation of marquees, aid stations, the transit of runners and spectators, ...).
- *Prior impact*: if the impact already existed before the sports event took place and worsens more or less as a result of the event, as appropriate.
- *Reversible impact*: possibility of restoring the initial state, i.e. the impact is temporary and the environment can return to its initial situation before the degradation occurred (until the next edition). This includes the possibility of considering two sub-types:
  - *Automatically reversible impact*: the modified setting returns to its initial status without human intervention, there are no accumulative effects due to the event.
  - *Non-automatically reversible impact*: this requires human intervention (corrective measures) to return to its initial status.
- *Irreversible impact*: there is no return to the initial state, the impact changes the environment. Nonetheless, actions can be implemented to avoid, mitigate or restore the impact.

## Appendix II. Description of measures to correct or mitigate impacts.

Corrective measures are aimed at trying to return the environment to its situation prior to the event in question. These measures will be detailed for each of the stretches on the route, having regard for the different types and assessment of the impacts.

### Types of measures according to the impacts caused

- *Measures to avoid impacts.* These measures attempt to prevent the potential impact (changing the itinerary so as not to trample an area with interesting flora, disturb fauna, etc.).
- *Impact abatement measures.* Whenever it is not possible to eliminate the impact completely, everything possible must be done to mitigate it. These measures help reduce the impact.
- *Impact restoration measures.* These measures are applied where the environmental impact or harm has occurred. Their aim is to repair the medium or the species damaged. Two types of action are possible: restoration and rehabilitation. The entity organizing the race must participate in these actions.
- *Impact compensation measures.* These are applied when the impact cannot be avoided or mitigated by the application of restorative measures. Their purpose is to counteract the negative effects of the activity on the environment through positive actions. These actions must be assumed by the entity organizing the race.

**Appendix III. Data collection sheet for preparing the report on environmental incidents generated during a mountain race.**

---

**Details of the organizing entity or individual submitting the application**

---

Promoting entity / organizer:

Address:

ID card n°:

Contact telephone n°:

---

**Concise description of the activity and route**

---

Race name and type:

Date:

Distance (km):

N° of participants:

N° of spectators (approximately):

N° and location of aid stations:

---

**Environmental incidents. Indicate and describe only those incidents detected (to be completed for each of the locations with incidents)**

---

Name of the area  
or location of the incident:

X co-ordinate:

Y co-ordinate:

---

Impact on the physical surroundings

- Soil (erosion, compacting, increased width of the paths, opening up of new paths) (describe):

---

Impact on the biological medium  
(mark the type of incident with an X)

- Flora (damage to trees or bushes, pastures, exposed roots) (describe):
- Fauna (describe):
- Water (streams, wetlands) (damage to margins and/or beds) (describe):

---

- Incidents involving sound:

Type and intensity of the noise:

---

- Waste (type and amount):

---

#### Appendix IV. Datasheet for identifying impacts caused by a mountain race.

---

##### Details of the organizing entity or individual submitting the application

---

Promoting entity / organizer:

Address:

ID card n°:

Contact telephone n°:

---

##### Concise description of the activity and route

---

Race name and type:

Date:

Distance (km):

N° of participants:

N° of spectators (approximately):

N° and location of aid stations:

---

##### Identification and evaluation of impacts. Describe and evaluate only those incidents identified (to be completed for each of the locations with incidents)

---

Name of the location:

Photographs of the impacts identified:

X co-ordinate:

<input type="text"/>	<input type="text"/>	<input type="text"/>
----------------------	----------------------	----------------------

Y co-ordinate:

---

Impacts on the physical surroundings  
(mark the type of impact caused with an X)

- Erosion (describe):
  - Compacting (describe):
- 

Impacts on the biological surroundings  
(mark the type of impact caused with an X)

- Flora (describe):
  - Fauna (describe):
  - Streams (describe):
  - Wetlands (describe):
- 

▪ Impacts on cultural heritage

Type of damage (describe):

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▪ Waste (type and amount):

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