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**Committee for the activities of the Council of Europe  
in the field of biological and landscape diversity  
(CO-DBP)**

**Group of specialists – European Diploma for Protected Areas**

28 February – 1 March 2005  
Room 11, Palais de l'Europe, Strasbourg

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**GRAN PARADISO NATIONAL PARK  
(Italy)**


**APPLICATION  
for the European Diploma of Protected Areas**

**presented by  
the Ministry of the Environment  
of Italy**

*Document established by  
the Directorate of Culture and Cultural and Natural Heritage*

## 1. SITE IDENTIFICATION

### 1.1. SITE NAME

|   |  |
|---|--|
|  | PARCO NAZIONALE GRAN PARADISO (PNGP)<br>GRAN PARADISO NATIONAL PARK (GPNP) |
|---|--|

|   |        |   |   |   |   |   |   |   |
|---|--------|---|---|---|---|---|---|---|
| <b>1.2. COUNTRY</b>                           | ITALIA |   |   |   |   |   |   |   |
| <b>1.3. DATE CANDIDATURE</b>                  | 2      | 0 | 0 | 4 |   |   |   |   |
| <b>1.4. SITE INFORMATION COMPILATION DATE</b> | 2      | 0 | 0 | 4 | 0 | 9 | 0 | 1 |
|   | Y      | Y | Y | Y | M | M | D | D |

### 1.5. ADDRESSES: Administrative Authorities

| National Authority   | Regional Authority  | Local Authority   |
|--|---|---|
| Name: Ministero dell'Ambiente e della Tutela del territorio<br>Dipartimento per l'assetto dei valori ambientali del territorio<br>Direzione per la conservazione della natura<br>Address: via Capitan Bavastro, 174 -00154 – Roma (Italia)<br>Tel. 0039-(0)6-5722-8509<br>(direction secretary)<br>0039-(0)6-5722-5325<br>Fax.0039-(0)6-5722-8001<br>E-mail <a href="mailto:scn-dg@minambiente.it">scn-dg@minambiente.it</a> | Name:<br>Address:<br><br>Tel.....<br>Fax.....<br>E-mail ..... | Name:<br>Address:<br><br>Tel.....<br>Fax.....<br>E-mail ..... |

### 1.6. ADDRESSES: Site Authorities

| Site Manager   | Site Information Centre   | Council of Europe Contact   |
|--|---|---|
| Name: Parco nazionale Gran Paradiso<br>Address: via della Rocca, 47 -10123 – Torino (Italia)<br>Tel. 0039-(0)11-8606-211<br>Fax. 0039-(0)11-8121305<br>E-mail <a href="mailto:direzione@pngp.it">direzione@pngp.it</a><br><a href="mailto:segreteria@pngp.it">segreteria@pngp.it</a> | <b>General informations</b><br>Name: Parco nazionale Gran Paradiso - Technical and planning service (Mr.Elio Tompetrini)<br>Address: via Losanna, 5 -11100 – Aosta<br>Tel. 0039-(0)165-44126<br>Fax. 0039-(0)165-236565<br>E-mail <a href="mailto:tecnico.pianificazione@pngp.it">tecnico.pianificazione@pngp.it</a><br><b>Tourist informations</b><br>Name: Segreteria turistica Parco nazionale Gran Paradiso<br>Address: via Umberto I Noasca (Italia)<br>Tel. 0039-(0)124-901070<br>Fax.0039-(0)124-901070<br>E-mail <a href="mailto:info@pngp.it">info@pngp.it</a> | Name: Mr. Michele Ottino (Parco nazionale Gran Paradiso Director)<br>Address: via della Rocca, 47 -10123 – Torino (Italia)<br>Tel. 0039-(0)11-8606-211<br>Fax.0039-(0)11-8121305<br>E-mail <a href="mailto:direzione@pngp.it">direzione@pngp.it</a><br><br>Name: Mrs. Patrizia Vaschetto (Parco nazionale Gran Paradiso Planning office)<br>Address: via della Rocca, 47 10123 – Torino (Italia)<br>Tel. 0039-(0)11-8606-211<br>Fax.0039-(0)11-8121305<br>E-mail <a href="mailto:pianificazione@pngp.it">pianificazione@pngp.it</a> |

## 1.7 SUMMARY DESCRIPTION

The Gran Paradiso National Park is, together with the neighbouring French Vanoise National Park, the widest protected area in the western Alps. It is the first Italian national Park and it dates back to 1922. The Park covers 70,318 hectares (48% in Piedmont, 52% in Aosta Valley) most of which has an alpine character. The mountains of the Gran Paradiso group (the only peak higher than 4,000 m completely inside the Italian territory) were scored and modelled by glaciers and streams, creating the valleys we see today. Glaciers still have a remarkable range and thickness near the Gran Paradiso and the junction of the Grivola. Thick larch woods with some spruce and Arolla pine and, more rarely, silver fir cover the lower reaches of the valleys while above immense alpine meadows allow a flora rich of colours and endemic species. The Gran Paradiso National Park was the last refuge in the Alps for the Alpine Ibex. The Gran Paradiso National Park saved this species from extinction and helped to reintroduce it on the whole Alps. Nowadays the park gives shelter to a rich and varied wildlife becoming an exceptional site to observe not frightened free ranging animals and carry out scientific researches in conditions of true wilderness. Nevertheless the protected area is not an uninhabited site: the characteristic villages and alpine pastures which spread on the mountains testify to a century-long tradition of pastoral life. On the Piedmont side of the Park traditional houses are built of stone while on the Aosta side houses are built of stone and wood. The park's policy is directed towards nature protection but allows an environmentally sustainable economic development. Visitors centres with permanent shows, tourist offices, pathways, nature paths, botanical garden, excursion guides and several cultural, scientific, sports and enjoying activities are carried out to reach this goal. A priority aim is the education of people towards a new way of relating to the environment: teaching programs with schools, summers activities, an environment education centre, books, publication and other instruments have been produced to understand the complex interactions underlying the territory.

## 1.8. EUROPEAN INTEREST JUSTIFYING THE CANDIDATURE

Gran Paradiso appears as an impressive massif, reaching high altitudes (4,061 m), covered by glaciers and characterised by a great harshness of the orographic relief. The valleys and dells of Gran Paradiso are the first real bastion of the north western Alps and offer a great variety of peaks and geological, climatic, pedological situations that allow the presence of a diverse flora, characterised by many endemic species and some glacial relicts like *Linnaea borealis*. The botanical garden of the Park, Paradisia, hosts over 1,000 species found in the park and in other mountain chains around the world. Paradisia is in contact with many others botanical gardens of the world for exchanging seeds. It hosts also a petrographic exhibit, a lichen collection, and a butterfly garden.

The Gran Paradiso National Park is a privileged space for the protection of the environment and of Alpine ibex (*Capra ibex ibex* L.). The Alpine Ibex population of Gran Paradiso is the last autochthon one in the world. In Gran Paradiso in 1913 was killed the last Bearded vulture in the Alps. The GPNP has been proposed as a Special Protection Zone within the Nature 2000 Network of the European Union, according to the Directive 79/409/EU and as a Bio Italy site of European importance (code IT1201000) (Directive 92/43/EU). More than 80 years of Park conservation policies, particularly of its species originally most in danger, like Ibex, and the expansion of the protected area from the bottom of the valleys at 800 m a.s.l. up the high altitudes of the glaciers, allowed the maintenance of the integrity of the habitats and the evolution in a naturalistic direction of many areas interested by farming. The structure of the biocoenosis in the steep zones characterising the Park, is extremely satisfying, both for the quantity and the quality of the occurring species and of the population structures.

The high level of PNGP preservation, guaranteed by the work of the historical Warden Corps of the park, is proved by the following facts:

- no species has disappeared since the institution of the Park;
- ungulate population have maintained a high and constant growth (e.-g.: Chamois population: from 6,500 individuals in 1986 to 9,000 individuals in 2003);
- the park has conducted regular censuses of Alpine ibex and Chamois since 1956. Data on the population dynamics of these species, however, has been available since 1877, when the park was still a Royal hunting reserve;
- 21 Golden eagles couples nesting in 70,000 ha (2003) represent an optimal density, one of the best on the Alps;

- some locally extinct species are spontaneously re-appearing (Lynx, Red deer, Roe deer, Wolf, Bearded vulture) thanks to the favourable conditions of the habitat.

Nature conservation has not only a passive task: the park reintroduced Alpine ibex and Chamois on the whole alpine arch (Parco regionale delle Alpi Marittime, Triglav National Park, Parco nazionale dello Stelvio, Parco regionale della Val Troncea, Parco regionale dell'Alta Valsesia, Parco regionale Orsiera Rocciavré, Alpi Orobie, Foresta demaniale di Tarvisio and many other colonies). It founded and maintains the secretariat of the Alpine Ibex European Specialist Group (GSE-AIESG Gruppo Stambecco Europa, [www.gseonline.org](http://www.gseonline.org)) whose task is to collect information on the state of conservation of Alpine Ibex populations on the alpine arch and encouraging a constant monitoring, in order to evaluate in a critical way the need of new introductions and propose new reintroduction projects in areas considered ideal to the species. It proposes research projects for the conservation of this species and organizes periodical meetings with the aim to circulate the knowledge and the studies on the species.

The Park collaborates with the neighbour and twinned Vanoise National Park to get together the men and the institutions, to carry out common managing techniques and to promote a sustainable tourism. The task of the two parks is to make a common European conservation policy of an area that together constitutes the biggest protected area in Western Europe.

The Gran Paradiso National Park has been a member of the Alpine Network of Protected Areas since its establishment in 1995, representing Italy in the International Steering Committee of this organisation, that is a concrete instrument of the Alpine Convention and an operating service for the protected areas on the Alps. At this moment Gran Paradiso National Park participates in different projects among parks in Europe, such as:

- "Habitatp", regarding the standardisation of habitat monitoring methods
- "Bearded vulture in the alps" to support the bearded vulture international monitoring effort
- "Alpine ibex monitoring" to follow Ibex migrations between France and Italy.

The Park has also contacts and scientific exchanges with Tatra's Mountains National Park (Slovak Republic) regarding the management of chamois populations.

## 1.9. SELECTION METHODOLOGY

Bern – Convention on the Conservation of European Wildlife and Natural Habitats

Washington – Convention on International Trade of Endangered Species of wild Fauna and Flora (CITES)

IUCN – Red List of Threatened Animals

Council directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora

Council directive 79/409/EEC of 2 April 1979 on the conservation of wild birds

Bonn – Convention on the migratory species of wild animals

WWF Italia - Libro rosso degli animali d'Italia (WWF – Red list of Animals in Italy)

Deliberazione Conferenza Stato Regioni del 24 Luglio 2003 - 5° Aggiornamento elenco ufficiale aree protette (State-Regions Conference Resolution on July 24th 2003 – 5° Updating of the official protected areas list)

## 1.10. MAIN AIM OR MOTIVATION

The Gran Paradiso's territory was the last one in which Alpine ibex (*Capra ibex ibex*) survived. The main aim of the institution of the park in 1922 was primary the conservation of this species, threatened with extinction, and more in general to preserve wildlife and flora, the beauty of the landscape and particular geologic shapings.

In more recent times Italian parks, Gran Paradiso included, underwent specific changes in their management strategies to apply an integration between man and natural environment, with the safeguard of anthropologic, historical, architectonic values and traditional rural activities.

In this context Gran Paradiso promotes educational, training, scientific and compatible recreational activities.

**1.11. DATES** *(to be filled in by the Council of Europe)*

DATE OF FIRST EXAMINATION

|   |   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|---|
|   |   |   |   |   |   |   |   |
| Y | Y | Y | Y | M | M | D | D |

DATE OF EXPERT VISIT

|   |   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|---|
|   |   |   |   |   |   |   |   |
| Y | Y | Y | Y | M | M | D | D |

DATE OF SECOND EXAMINATION

|   |   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|---|
|   |   |   |   |   |   |   |   |
| Y | Y | Y | Y | M | M | D | D |

DATE OF AWARD

|   |   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|---|
|   |   |   |   |   |   |   |   |
| Y | Y | Y | Y | M | M | D | D |

**2. SITE LOCATION****2.1. SITE CENTRE LOCATION**

LONGITUDE

|   |  |  |   |   |   |   |   |   |   |   |
|---|--|--|---|---|---|---|---|---|---|---|
| E |  |  | 7 | ° | 1 | 5 | ' | 5 | 5 | " |
|---|--|--|---|---|---|---|---|---|---|---|

W/E (Greenwich)

LATITUDE

|   |   |   |   |   |   |   |  |  |   |
|---|---|---|---|---|---|---|--|--|---|
| N | 4 | 5 | ° | 3 | 5 | ' |  |  | " |
|---|---|---|---|---|---|---|--|--|---|

**2.2. AREA (ha)**

|            |   |   |   |   |   |   |   |   |
|------------|---|---|---|---|---|---|---|---|
| Total Area | 7 | 0 | 3 | 1 | 8 | , | 0 | 0 |
| Core       |   |   |   |   |   | , |   |   |
| Buffer     |   |   |   |   |   | , |   |   |
| Transition |   |   |   |   |   | , |   |   |

**2.3. SITE LENGTH (km)**

|  |  |  |   |  |  |  |
|--|--|--|---|--|--|--|
|  |  |  | , |  |  |  |
|--|--|--|---|--|--|--|

**2.4. ALTITUDE (m)**

MINIMUM

|  |   |   |   |
|--|---|---|---|
|  | 8 | 0 | 0 |
|--|---|---|---|

MAXIMUM

|   |   |   |   |
|---|---|---|---|
| 4 | 0 | 6 | 1 |
|---|---|---|---|

MEAN

|   |   |   |   |
|---|---|---|---|
| 2 | 4 | 2 | 6 |
|---|---|---|---|

**2.5. ADMINISTRATIVE REGION**

REGION NAME

|               |
|---------------|
| Piemonte      |
| Valle d'Aosta |
|               |

% COVER

|  |   |   |
|--|---|---|
|  | 4 | 8 |
|  | 5 | 2 |
|  |   |   |

Marine area not covered by the terrestrial part

|  |  |  |
|--|--|--|
|  |  |  |
|--|--|--|

### 3. NATURAL HERITAGE

#### 3.1 GENERAL ABIOTIC DESCRIPTION (Geomorphology, geology and hydrogeology)

The Gran Paradiso National Park includes the homonymous massif and five main valleys between Piedmont (Orco and Soana Valleys) and Aosta Valley (Cogne, Valsavarenche and Rhêmes Valleys). To the South West it borders for 12 km with the French Parc national de la Vanoise (Vanoise national park). The extension, included the last extension of the park borders which happened in 1979, is currently 70,318 hectares, between 800 m and the Gran Paradiso peak at 4,061 m. The territory is made up of 62% moraines, rocks, waters and glaciers; 17% meadows and pastures; 20.2% woods and bushy lands and 0.8% urbanized areas and cultivations.

Geologically speaking the park is in an area dominated by the upper penninic unit of the Gran Paradiso stratum. Much of the area is a formation of stratified gneisses. In some places the gneiss has a thick covering of limestone schist, resulting from metamorphic processes of varying intensity on marine deposits of the mesozoic era.

Worth of protection are glaciers, glacial cirques, rock glaciers, glacial pulsations' morainic ridges, particularly those witnessing the last glacial advance (XVI-XIX century). A morphological peculiarity linked to the activity of glaciers is represented by the frequent "roches moutonnées" expanses. The hydrographical grid is very recent and nearly everywhere it is laid out on a morphology linked to glacialism. At the bottom of the valleys there are deep gorges, where glacial pots or potholes can be seen, which are erosion forms due to water and which can reach a diameter of some meters. Also lakes with glacial origins are very common. Their filling has produced some damp zones of great interest.

#### 3.2. HABITATS

The Gran Paradiso National Park is a high mountain park, with predominating acidic rocks, and different morphologies of the valleys between the northern side in Aosta Valley – more exposed and sunny – and the southern side in Piedmont, embanked, rainier and steeper.

##### **Forest and Shrub associations**

These characters emphasize the differences of the forests according to the side. Woods (only 16% of the surface) create a sort of ring around the central area of the park. In Piedmont Chest-nut woods (*Castaneo-Quercetum*) of human origin occupy the lower altitudes. At higher altitudes, on acid soils, we can find Beechwoods with *Luzula nivea* and *L. sylvatica* and dominant ferns (*Dryopteris filix-mas*, *Athyrium filix-femina*) (*Luzulo-Fagenion* and *Luzulo niveae-Fagetum*). Still in the beech horizon, on more exposed areas, appear Scots pines (*Deschampsio-Pinion*).

In Aosta Valley, broad leaves woods aren't frequent; instead of Beech woods pine forests with Scots pinewood are diffused, that find here a favourable dry climate for their development. The most represented phytosociological alliance is *Ononido-Pinion* with *Ononis rotundifolia*, *Ononis natrix*, *Astragalus onobrychis*, *Laserpitium siler*, *Arctostaphylos uva-ursi* and *Carex umilis*, herbaceous plants that form the brushwood of these pinewoods.

In the park it is also possible to encounter forest communities characteristic of fresh and humid slopes: mesophile mixed Maple-Ash-Lime woodlands in ravine and on fresh boulders with *Tilio-Acerion* alliance.

Conifer woods are the most widely distributed on the montane and subalpine belts. Within 1,000 and 1,800 m Spruce forests (*Picea abies*) with a rich brushwood in heather family (*Vaccinion-Piceion*) species like Alpenrose and Whortleberry (*Rhododendron ferrugineum*, *Vaccinium myrtillus*, *V. vitis-idaea*) are widespread. Higher up spruce accompanies larch (*Larix decidua*), and forms mixed woods, very common in the park. At higher altitudes, up to the timberline (2,200-2,400 m), larch becomes dominant, particularly on rock stations, where it constitutes a sort of climax. Brushwood is poor in herbaceous species (*Laricetum*). In north-faced sites, Larch blends with Arolla pine wood, that prefers soils richer in humus (*Larici-Cembretum*).

Arolla pine wood (*Pinus cembra*) is sometimes present on big blocks debris and on rock slopes. Some localised Mountain pine forests (*Pinus uncinata*) are localised in the higher part of the Orco Valley and in Cogne Valley, next to Lillaz.

Along the gorges and in the alluvial zones some Alder woods (*Alnion incanae*) appear, while along the pebbly riverbanks we find willow groves like *Salix purpurea*, *S. elaeagnos*, *S. nigricans*, *S. daphnoides*, *S. foetida* and *S. caesia* (*Salicion elaeagnis*, *Salicion arbusculae*).

### Other non-forest associations

The park is interested by important herbaceous formations: natural grasslands, high pastures and meadows. On acid soils up to 2,500 m, the predominating vegetation is *Caricion curvulae*, characterized by Alpine sedge (*Carex curvula*); also on these superficial and poor soils grassland dominated by Coloured fescue (*Festuca varia*) occurs in sunny places and steep slopes (*Festucion variae*). Where basic rocks crop out on windy tops and ridges, grassland are dominated by *Elyna myosuroides* (*Oxytropo-Elynion*). The few areas (like Soana Valley) where calcareous soils appear in the alpine belt, are inhabited by Blue sesleria grassland (*Seslerion albicantis*). On poor alpine soils, above the timberline, there is an extended vegetation dominated by Mat-grass (*Nardion*). Meadows and pastures below the timberline depend on human management. We can find different types of vegetation (*Polygono-Trisetion*, *Cynosurion*, *Poion alpinae*).

The most interesting humid zones in the Park are the Nivolet plans (Valsavarenche) and Pra Suppiatz mire (Cogne Valley). Here there are strips of *Caricion fuscae* communities at acid oligotrophic fens and *Caricion davallianae* communities at baso-neutrophile fens, that coexist because of the lithological substratum variety. Next to glacial streams running along moraines it is possible to meet the *Caricion bicolori-atrofuscae* community, considered priority habitat according to EU Directive 43/92.

Alliances of snow patches are *Salicion herbaceae* on acid soils and *Arabidion coeruleae* on basic ones.

Alliances of screes: on the alpine and subalpine belts there are *Thlaspidion rotundifolii*, *Drabion hoppeanae*, *Petasition paradoxii* and, below, *Stipion calamagrostidis* on mobile limestone or calciferous screes and *Androsacion alpinae* or lower *Galeopsion segetum* on siliceous ones.

On rocky slopes and cliffs there are *Potentillion caulescentis* and *Cystopteridion fragilis* on calciferous substrata and *Androsacion vandellii* or *Saxifragion bryoidis* on siliceous ones.

In annexe 1 and 2 are the habitat lists in the park.

### 3.3. FLORA

Until now in GPNP 363 bryophyte species have been recorded: 92 liverworts and 271 mosses. This represents 33% of the total number of bryophytes recorded in Italy. 194 bryophytes are relevant and 80 are priority species. Among them 11 liverworts and 18 mosses were considered extinct from the Italian territory. GPNP represents an exceptional rich region for bryophytes and a sanctuary for very rare or heavily threatened species in Italy and in Europe as well.

Lichens and macro-fungi are not well known: only localized studies were carried out (see bibliography). Nevertheless 15 lichens are priority species.

A list of 985 species of spermatophyta have been recorded on the territory of PNP. Some of them (41) are endemic in the Western Alps (see annexe n.3). In annexe 4 are indicated the species under protection in the international Conventions. 187 vascular species are remarkable and 51 are priority species of European interest.

Cogne Valley is famous in the botanic literature because of the richness of its flora and as a centre of endangered species.

Here is a brief list of the most relevant species in the park:

Spermatophyta: *Androsace septentrionalis*, *Aquilegia alpina*, *Astragalus alopecurus*, *Cortusa matthioli*, *Drosera rotundifolia*, *Linnaea borealis*, *Potentilla grammopetala*, *Potentilla nivea*, *Sedum villosum*, *Stemmacantha rhapontica* subsp. *lamarckii*, *Trifolium saxatile*, *Tulipa sylvestris* subsp. *australis*, *Viola pinnata*.

Bryophyta: *Riccia breidlerii*, *Scapania massalongi*.

### 3.4. FAUNA

There are 39 registered Mammalian species (see annexe 5), including 15 Rodents, 6 Insectivores, 2 Lagomorphs, 7 Carnivores, 5 Ungulates and 4 Bats. Thanks to enforced protection measures, the wild ungulates population had a numerical increase beyond every historical record. The chamois population (*Rupicapra rupicapra*) amounts to 9,000 individuals, the Alpine Ibex population (*Capra ibex*) to 4,000. Some Lynx (*Lynx lynx*), locally extinct since the beginning of 1.900, have been observed in the last years. Some wolf (*Canis lupus*) observations need DNA confirmation.

More than 100 birds species nest in the park (see annexe 6): some species like Goshawk *Accipiter gentilis*, Golden Eagle *Aquila chrysaetos*, Honey Buzzard *Pernis apivorus*, Ptarmigan *Lagopus mutus*,

Rock Partridge *Alectoris graeca*, Eagle Owl *Bubo bubo*, Pygmy Owl *Glaucidium passerinum*, Dipper *Cinclus cinclus*, Cough *Pyrrhocorax pyrrhocorax*, Siskin *Carduelis spinus* are indicated as vulnerable species. Golden Eagle *Aquila chrysaetos* density is high; other species of particular scientific interest are: Tengmalm's Owl *Aegolius funereus*, Black Woodpecker *Dryocopus martius* and Bearded Vulture *Gypaetus barbatus* (123 observations in the last years).

Because of altitude and river typology fish fauna is poor of species. The only autochthonous species is River Trout *Salmo trutta fario*. For the same reason reptiles are only 8, amphibians 3 (see annexes 7-8). Invertebrates are not well known; literature is broken up and dated (1,926 and 1,931). These old studies were carried out on Coleoptera, Lepidoptera, Arachnida, Orthoptera, Dermaptera, Hymenoptera, Formicida, Anellida, Isopoda Crustacea, Shellfishes (see bibliography).

Among the most interesting species:

- Coleoptera carabida: *Cychrus grajus lauzonensis*, *Nebria cordicollis kochi*, *Pterosticus burmeisteri*, *P. parnassius*, *Ocydromus fulvipes*
- Coleoptera cerambicida: *Acmaeops septentrionalis*
- Coleoptera curculionida: *Dichotrachelus stierlini knecthi*, *D. sulcipennis pedemontanus*, *Otiiorhynchus desertus*
- Coleoptera idroadephaga: *Hydroporus incognitos*
- Coleoptera cholevida: *Canavesiella lanai* (new genus)
- Orthoptera acridida: *Aeropedellus variegatus*
- Lepidoptera ropalocera: *Parnassius phoebus paradisiacus*
- Lepidoptera satyridae: *Oeneis glacialis*

In annexe 9 there is the list of protected species.

### 3.5. LANDSCAPE

The park straddles the mountains between Piedmont and the Aosta Valley, covering about 70,000 hectares, most of which are characterized by an alpine habitat. The mountains of the Gran Paradiso group were scored and modelled by glaciers and streams, creating the valleys we see today. As once said Renzo Videsott, the first Director of GPNP, "It was here that King Victor Emmanuel was bewitched for all his life by those grandiose mountains and their wildlife".

In some of the most characteristic valleys, meadows surround the old traditional villages, setting in a frame the mountain massifs (Rhêmes Notre Dame and Cogne valleys). In spring many chamois and ibex feed near the villages giving an impression of harmony between man and nature.

The lower reaches of the valleys are densely wooded with Larches, with some spruce and Arolla pine and, more rarely, Silver fir. In Piedmont, at the bottom of the valleys, large Chestnuts give a sensation of impressiveness. Here, beech woods cover the slopes up to timberline. Higher up the trees gradually give way to huge alpine meadows, brilliant with flowers in late spring. Further up, rocks and glaciers dominate the landscape, with the highest peaks of the massif towering above, with Gran Paradiso itself topping 4,000 meters. Cogne and Valsavarenche glaciers assure a deep emotion, particularly if observed from Saint Orso plain and Orvieilles Royal Lodge.

Impetuous streams run down, giving rise to meanders (Nivolet), potholes (Ceresole) and sometimes remarkable waterfalls like in Lillaz and Noasca. Little alpine glacial lakes are scattered all over the park, but near Nivolet pass they assure a harmonious whole of water, marsh plants and mountains, mirrored inside their waters.

## 4. CULTURAL HERITAGE AND SOCIO-ECONOMIC CONTEXT

### 4.1 CULTURAL HERITAGE

Signs of human presence in the geographic area of Gran Paradiso dates back at least 10,000 years ago. Near the park caves inhabited by palaeolithic hunter tribes have been detected, while there are numerous rock engravings which are difficult to date. The first permanent inhabitants were "Salassi", a Celtic population that created a mining and metallurgical activity using iron (Cogne's mines), copper, silver and gold present in the region. During the first century B.C., roman civilisation replaced the "Salassi", as proven by the finding of a latin inscription near Ceresole, and the still existent roman bridge-aqueduct of Pondel. Metallurgic activities continued along the centuries and had a new development in the XVII century. An historical building dating back to 1675 is the copper forge of



Ronco Canavese, used until 1950, and now restored by the park. Overall the villages and alpine pastures, which dot the mountains (222 historical sites and 453 alpine pastures, most of which are abandoned nowadays) testify to a centuries-long tradition of pastoral life. The herders lived a self-sufficient existence here and had more contact with the inhabitants of the far side of the Alps than with the plain dwellers below. When this model of life began to become too difficult, the inhabitants learnt other trades, like chimney sweeping, glassworking, tinkering. The park made a little museum in Locana to illustrate this situation.

The characteristic architecture of the villages represent important monuments of cultural heritage, just as the terracing of the ground to give stability to the slopes, the paths, the community ovens, shrines and even gastronomic specialities (“Fontina” cheese dates back 1200 A.D.). On the Piedmont side of the park houses are built of stone and are sometimes decorated with religious frescos. Interesting samples are “house-fortresses” in Soana Valley and houses with arches and terraces. An antique mountain school was restored by the park in the hamlet of Maison. Whereas the houses on the Aosta side blend stone and wood (examples can be found in the hamlets of Next and Tignet). Noteworthy are the “rascards”, barns completely built in wood.

Otherwise the alpine houses in the park vary only slightly from valley to valley.

In 1841 King Victor Emanuel II went the first time to hunt in Cogne Valley. He liked these places and bought the rights for his Hunting Reserve, that was provided with six Royal Hunting Lodges (some of them, like Orvieilles’s and Gran Piano’s lodges have been restored by the park), cabins for the game wardens, mule tracks and paths for 300 km. He founded the Game wardens Corp. When the National Park was instituted many of the Royal hunting wardens became Park wardens; the familiar tradition of the Park wardens Corp is still felt.

In the XVIII century, the Gran Paradiso massif was discovered by mountaineers: tourism began to transform the social context of the valleys; hotels and shelters were built. Cogne, in only a century, changed into a tourism centre. Ceresole Reale became, for a short time, an elite centre for mineral waters. Here, in 1888, the “Grand hotel” was built, a remarkable building that the park is restoring as a visitor centre. It is here that the poet Giosuè Carducci composed his poem “Ode al Piemonte”.

In 1920 King Victor Emanuele III donated 5,200 acres of his Reserve to the Italian State to make a National Park. In 1922 GPNP was instituted.

Important monuments of cultural heritage:

- the Church of Our Lady of the Carmine (XIV cent.) in Valsavarenche
- the Church of Our Lady of the Assumption (1680 A.C.) In Rhêmes Notre Dame
- the Prascondù Sanctuary (1620 A.C.) in Ribordone
- the Saint Besso Sanctuary in Valprato Soana.

## 4.2 SOCIO-ECONOMIC CONTEXT

### Demographics

8,300 people live in the 13 Park’s Communes; only 4 Communes have more than 1,000 residents. However, only 3.6% of all the inhabitants of the 13 Communes, corresponding to less than 300 people, live inside the boundaries of the Park; the human density in the park is therefore about 0,4 inhabitants per km<sup>2</sup>. The territory of the park is concerned by an important depopulation: between 1981 and 2001 population decreased by 2.9%, particularly in Piedmont (-23,5%). In the same time the average age is increasing: in the Piedmontese side of the Park 31,36% of the people is more than 65 years old, while in Aosta Valley it is only 18,58%.

### Economy

Status of Agriculture: in the last 15 years used farmlands progressively reduced; the professional farms are very few, generally employed in cattle breeding, while there are mainly marginal farms managed on a part-time basis. The percentage of people in charge in the agricultural sector is 9.4%. In the industrial sector it is 35% and 55,6% in the tertiary sector. The main industry industrial activity is the water power production in Piedmont. Economical activities are mainly linked to tourist offer. Tourist presences was 822,548 tourists in 1993 using a total of 22,647 beds (hotels, campings, others). The unemployment rate in GPNP (7,2%) is lower than in Piedmont and Aosta Valley. Commuting towards the cities is an important phenomenon, especially in the communes of the bottom of Aosta valley.

Nowadays the principal economic problems in park area are connected with the reduction of personnel in the electric industry and with the negative trend in alpine tourism. Entrepreneurial management

costs on mountains are higher (distance from communication routes and services centres, energy...) than in other situations, and have a bad effect on enterprises competitiveness. In agriculture the aging of the people produces difficulties in introducing new production techniques and in local product enhancement.

## **5. EDUCATIONAL AND SCIENTIFIC INTEREST**

GPNP is visited every year by about 1,700,000 tourists; many of them actually just visit the surroundings of the protected area without entering in it. A correct information and education of the visitors is in any case necessary. At the entrances of the protected area, visitors are welcomed by the park gates and notice boards showing maps with footpaths, visitors centres, services and signs for recommended and forbidden activities.

Within the park there are:

- 1 tourist office in Noasca for information, booking and publication requests;
- 7 visitor and information centres with monothematic exhibitions about naturalistic themes such as Ibex (Ceresole Reale), Landscape and Geology (Noasca), Chamois (Ronco Canavese), Bearded vulture (Rhêmes Notre Dame), Lynx (Valsavarenche), and ethnical or historical themes like "Old and new crafts of the valleys" (Locana) and the "Copper forge" (Ronco Canavese);
- 1 botanical alpine garden (Cogne) with a rock garden and a butterfly garden
- 2 free expositions, one about glaciers and the other about high pastures near Serrù Lake (Ceresole)
- 1 ancient restaured mountain school (Maison, Noasca);
- 6 nature-paths: about vegetable species and anthropic aspects (Noasca), nature felt by the senses (usable as well by blinds too, Ceresole reale), Colle Losa international footpath that joins GPNP with the French Parc National de la Vanoise (Ceresole), Valsavarenche, Rhêmes N.D. (partially usable with wheelchairs) and Cogne;

The park is creating 3 new visitor centres in Ceresole Reale (a new Ibex exposition in the Grand Hotel), in Ribordone (about popular religious consciousness, next to Prascondù Sanctuary) and in Cogne (about park, territory and nature management), a Centre about the conservation of streams and water courses (Valsavarenche) and a new botanical garden in Valprato Soana (about agricultural species and practises in the mountains). Visitor centres offer leaflets, CD, videos, books, maps, gadgets and other information material. They are equipped for seminars, workshops, projections.

In Noasca is the Park's Environment Educational Centre equipped with classrooms, laboratory, instruments, didactic collections. Here are organised educational lectures, lessons, video and slide projections. Students can be accommodated in a hotel near the centre.

The park has got 56 nature Park Guides. They carry out guided tours, naturalistic hikes, study stages, lessons and slide projections. The park proposes thematic activities regarding naturalistic and cultural topics. In collaboration with WWF, the park organises nature adventure camps. GPNP organises educational exhibitions; the park is presented on specialised magazines. Three internet sites in different languages are carried on, the official one [www.pnpgp.it](http://www.pnpgp.it), the site of the Italian Parks Federation [www.parks.it/parco.nazionale.gran.paradiso](http://www.parks.it/parco.nazionale.gran.paradiso) and the site of the European Alpine Ibex Specialist Group [www.gseonline.it](http://www.gseonline.it).

The park issues the magazine "Voci del parco" (Park's voices), in 2-3 numbers per year, 1 for tourists (translated in French and English) and 1-2 for the local population.

Specific formation is carried out for park workers, teachers and tourist operators.

The park updates a specialistic library with 6,000 titles, a photographic library with 20,000 photos and slides and a video library with 400 videos.

The park is an exceptional site for scientific research, thanks to its richness in wildlife and flora. It has in its staff scientific and botanical sectors. Their main tasks are to collect data on flora and wildlife, to monitor habitats and biodiversity, to carry out scientific researches about biology and eco-ethology of protected animal species, and about the conservation genetics of certain species. The park is carrying out many researches in collaboration with Italian and foreign Universities. Among them:

- researches on the behavioural ecology of Alpine ibex and its life-history (Sherbrooke Canada University and Sassari University)
- researches about the presence, the population dynamic and ecology of Blue hare and Ptarmigan in relationship with climatic transformations and withdrawal (Turin University, Turin CNR and freelance researchers)
- eco-ethologic researches about Chamois and its life-history (Siena University)

- researches about the population dynamics of Red squirrel (Turin university and freelance researchers)
- researches about Wild boar space use, eco-ethology and dietary habits (Turin University and freelance researchers)
- researches about the behavioural ecology of Passeriformes on alpine grassland (Turin University)
- researches about Roe deer ecology and distribution (freelance researchers).

The park issues a scientific peer reviewed journal “Journal of mountain ecology”.

For the needs of researchers, the park offers guestrooms and three Alpine Wildlife Research Centres.

The alpine botanical garden is in contact with many other botanical gardens in the world for seeds' exchanges. For that it issues and mails every year an “Index seminum”.

Sometimes the park organizes scientific conferences and workshops.

## **6. SITE DESCRIPTION**

### **6.1. VULNERABILITY**

GPNP territory presents a very localised alteration state due to anthropic activities which appears not to be harmful for the site's general conservation.

GPNP is very known for nature, tourism and mountaineering and is visited especially in august. In this period the increase in tourist presence involves a localized disturb to wildlife. This problem is heavier in the bottom of the valleys and in high altitude facilities, mainly where there are Alpine huts or carriage roads. Studies on human impact on wildlife and its biological rhythms are going on.

Traffic and transport in this period can exert an influence by air and noise pollution. Helicopters flies produce a negative impact with noise and air pollution.

GPNP is located on the territory of thirteen Communes. Of these, only one is completely inside the Park. The others share with the Park a more or less high quantity of settlements or they are interested in the Park for what concerns their mountain parts. Thanks to territory's morphology, lacking in flat areas with wide woody slopes, in all the Communes the urban development tend to concentrate the building areas in the bottom of the valleys, around the historical settlements; infrastructural intervention plans are very limited. Many Communes have specific implementation regulations for the interventions in the historical cores.

The structures for tourism are generally concentrated in the inhabited centres; some huts and a road at a high altitude involve flow concentrations in Summer months that locally create conservation problems. Since 2003 the Park has regulated the traffic on this road.

In the Park's territory there is no notice of danger caused by acid rains.

There is a glacier withdrawal, due to climate changing; periodical monitoring is made since 1986 by the Comitato Glaciologico Italiano (Italian Glaciological Committee) and, in the last years, by the Park's Surveillance Service.

Hydrogeological upheaval's danger affect mainly the torrential parts of the Park's bottom of the valleys and are imputable to the geological characteristics of the area. They are to be considered inevitable and limitable in their damages with an adequate management of the territory use.

Some dams and power-lines produce impacts on the landscape. In 2002 and 2003 GPNP ordered AEM to demolish some reinforced concrete structures and power-lines to reduce this impact.

### **6.2. PROTECTION STATUS**

In 1920 King Victor Emanuel III donated 5,200 acres of his Hunting Reserve to the Italian State to transform it into a National Park. Two years later, on December 3<sup>rd</sup> 1922 the GPNP was formally instituted. It was the first Italian National Park and was initially administered by an independent board. In 1934 it was placed under the direct control of the Ministry for Agriculture and Forests. Sadly the Park suffered severe damage during World War II: Ibex population was reduced to 400 individuals. Since 1947 it has again been managed by an independent board, under State's control. In 1979 the park's

surface was increased in Piedmont. In 1991 the Italian National Parks Act came into force. This indispensable piece of legislation regulates the creation and life of Italy's protected areas, including GPNP. In the National Park the following activities became forbidden (par.11 Act 394 December 6<sup>th</sup> 1991):

“The activities and the works that can compromise landscape and the conservation of protected natural environments, having a particular care towards protected flora, fauna and habitats. Particularly it is forbidden:

- a) to capture, kill, injury or disturb animal species; to collect or damage plant species beside for operations connected with normal agricultural or pastoral activities and to introduce not indigenous animal or vegetable species that can upset natural balance
- b) to open and cultivate quarries, mines and dams and to take away minerals
- c) to modify water systems
- d) to do advertising activities out of the urban areas, without park authority authorisation
- e) to introduce and use whatever bio-chemical cycle's destruction or deteriorating mean
- f) to introduce weapons, explosives and whatever other capture or killing mean
- g) to light fires in the open
- h) not authorised flying over; except for what defined by flying Acts.

Park regulations can define exceptions to these prohibitions. It can eventually authorize removal plans of wildlife, when required to reconstruct ecological imbalances checked by the Park.”

Regulations were approved on July 16<sup>th</sup> 2001.

Accordance of permits or authorisations for buildings, works, structures inside the park is subjected to preventive park's authorisation.

Since 2000 GPNP has been fully included in the Special Protection Zone code IT1201000 according to the Directive 79/409/EU and since 2003 it has been fully included in the Bio Italy Site of Community Importance “Parco nazionale Gran Paradiso” (code IT1201000) (Directive 92/43/EU).

### 6.3. OWNERSHIP

Inside the protected area the Park's properties hold no more than 5%, that adds to another 5% in joint ownership; but the public property adds in one body 52% of park's surface; the most part of the surface (69%) belongs to guilds, communes and consortia.

|  |      |
|--|------|
| Properties inside the Park are divided as follows: |      |
| Communes   | 28%  |
| Guilds   | 5.5% |
| Private properties                                 | 39%  |
| Gran Paradiso National park                        | 5%   |
| Consortia  | 5.4% |
| Consortia in which the Park is present             | 4.6% |
| State property                                     | 3.4% |
| State property used by the Park                    | 3%   |
| A.E.M. (Electric society of Turin)                 | 3%   |
| Other  | 3.1% |

### 6.4. DOCUMENTATION

The GPNP has been collecting data about wildlife, flora and inanimate nature since its foundation. The oldest data are in form of paper lists. More recently data were collected in databases and in GIS formats.

Certain databases adopted by GPNP, especially the fundamental topographical maps, come from the Piedmont's and Aosta Valley's Regions bodies (vectorial maps).

GPNP carries out by itself the following data bases associated to Arcview shapefiles:

- building properties (settlements, alps, huts)
- infrastructures, utilities, facilities (roads, paths, camping, parking, dams, visitor centres, museums, sports facilities, sign system)
- general town plans

- communes' and park borders
- cadastres
- geo-morphological data (erosion and accumulation, hydrography, anthropic forms, actual glacial elements, structural and deforming components)
- avalanches
- hydro-geological dangerousness
- waterworks
- land use (from aerial and satellite photographs)
- forest map
- critical situations map
- values and natural qualities map
- daily vertebrates observations
- chamois and alpine ibex censuses
- ptarmigan censuses
- potential vertebrates distribution
- bearded vulture, lynx and wolf observations
- cattle presence and distribution
- floristic data (bibliographic and herbarium data included)
- priority flora species

The park has at its disposal:

Landsat and Quickbird satellite images, aerial photos, geo-referenced ortho-photos

Other alpha-numeric databases:

- daily vertebrates observations
- chamois, alpine ibex and ptarmigan censuses
- bearded vulture, lynx and wolf observations
- wild board shooting down
- wild fauna damages
- biometric file cards
- marked animals file cards
- golden eagle censuses, distribution and observations
- black grouse censuses
- vegetation data
- building activities since 1980
- helicopter flights since 2000
- park buildings
- traditional building typologies
- historical settlements associated to cadastre, photos and analytic file cards (context, urban structure, building structure, services, quality and conservation status)
- Tourist operators (hotels, restaurants, shelters, camping, craftsmen, growers, tourist services...)
- Tourist patrimony (alpine environment, human presence, park services)
- Tourists' presences

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## **7. SITE MANAGEMENT**

### **7.1. MANAGEMENT PLANS**

The functioning of the Park institution is regulated by its charter.

In the Park's territory are in use the local urban tools: the Communal general town plan, the landscape territorial plan (for the part of Aosta Valley), forest management plans.

Italian protected areas general law (L. 394/91) provides for every park three plans:

- park plan, that organises the territory in different zones with different protection degrees, establishes binding forces, shows criteria for environment, flora and fauna management;
- park regulations, that regulates the activities authorised or forbidden inside the park;
- social and economic plan for sustainable activities.

For adoption and approval proceedings the law provides for orchestration procedures with the local communities and control functions for the Ministry of the Environment.

Park's board and local communities approved together the principles for the planning; nowadays the elaboration of the Park plan, of the Regulations and of the social and economic plan is in progress.

For what concerns the Plan, the first fact-finding studies have been started, regarding particularly:

- representation of geomorphologic aspects related to planning needs;
- floristic-vegetation databank;
- studies for the socio-economical plan;
- farming and agriculture in GPNP;
- historic aggregate structures, mountain pastures and routes;
- Communal urban plans;
- Park fruition.

Once enforced the Park Plan will work as a declaration of public general interest and it will replace in every level the landscape plans, the territory or urban plans and every other planning tool.

While the planning is going on all the general acts of the Park (L.394/91) prohibitions are in force and the park approved provisional regulations for:

- protection of flora, fauna and geological features and for use and enjoyment of the park area,
- wildlife management
- damages compensations produced by wildlife
- over fly by aircrafts and helicopters
- grants for works and activities consistent with park's principles.

Park's activity is ruled by a three-years plan that plans: administrative and personnel activities, nature monitoring and field investigations, natural system management, management and sustainable development planning, land's control and environmental damages prevention, visitor centres and educations centres network activities, environmental education, real properties management, culture,



projects for the park's management and sustainable development, sustainable accessibility, communication, national and international relationships.

## 7.2. BUDGET AND PERSONEL

The park's plant staff reaches 86 units; nowadays the staff is made up of 80 units.

Direction: 1 director out of 1

Surveillance sector: 58 rangers out of 62

Technical and planning sector: 4 employees out of 4 (3 architects and 1 worker)

Scientific and veterinary sector: 1 veterinarian out of 2

Tourist sector: 3 employees out of 3

Botanical sector: 1 botanists and 1 employee out of 2

General affairs: 4 employees out of 5

Administrative sector: 7 employees out of 7

Other people not in staff are employed in Visitors centres ( 12 people)

Real properties: 8 visitor centres, 17 between flats and guestrooms, 8 offices, 17 ranger-cabins and ex-Royal hunting lodges (others 32 in use)

Equipment: cars and 4x4 vehicles, computer equipment, optical equipment, scientific equipment, surveillance equipment

The Park Board received in the last years the following ordinary State contributions:

| Year | Contribution |
|------|--------------|
| 1999 | € 4.012.539  |
| 2000 | € 4.132.915  |
| 2001 | € 5.493.608  |
| 2002 | € 4.263.558  |
| 2003 | € 3.953.128  |

Other funding on projects came in the last years through the Triennial Plan of Protected Areas and the CIPE (Interdepartmental Committee for Economic Planning), extraordinary funding for specific actions (sign system, clean energies, otter centre, pathways, funding for investments in the national parks). Other funding are supplied on specific projects from the Valle d'Aosta Region and Piedmont and from the Province of Turin. European Union financed some projects with Interreg and Life funding (Habitalp, Bearded vulture in the alps, Ibex monitoring).

The final balance of the last years closed under the following results:

| Year | Incomes     | Total expenditures | Personnel expenditures |
|------|-------------|--------------------|------------------------|
| 1999 | € 5,598,644 | € 5,591,873        | € 2,825,159            |
| 2000 | € 6,109,339 | € 6,348,947        | € 2,836,902            |
| 2001 | € 7,038,668 | € 7,321,375        | € 3,087,643            |
| 2002 | € 7,103,100 | € 7,250,684        | € 3,171,428            |

## 8. MAP OF THE SITE

### • Physical map:

NATIONAL MAP NUMBER

SCALE

PROJECTION

|  |          |     |
|--|----------|-----|
| IGM (Italian military Geographic Institute)<br>90 II, III – 91 III – 112<br>I, II, III, IV -113 I, II,<br>III, IV<br>(Map 1) | 1:50.000 | UTM |
|--|----------|-----|

## REFERENCE TO AVAILABILITY OF BOUNDARIES IN DIGITISED FORM

|  |
|--|
| Scale, projection and parameters of the site boundaries are the same of the map above mentioned. |
|--|

• **Map of designated sites described in 6.2.**

**The map coincides with the physical map above**

Provide this information on a map with the same characteristics as above.

• **Other maps**

- **Map 3 Land use**
- **Map 4 A Vertebrate distribution map (Chamois, Alpine Ibex, Marmot, Wild boar, Red deer, Roe deer, Rock ptarmigan, Black grouse, Rock partridge, Red squirrel, Artic hare, Brown hare)**
- **Map 4 B Vertebrate distribution map (Bearded vulture, Golden eagle, Wood peckers, Mustelids, Red fox, Wolf, Lynx)**
- **Map 5 A Historical paths and Alps**
- **Map 5 B Historical human settlements**

• **Aerial photograph(s) included:**

|     |    |
|-----|----|
| X   |    |
| YES | NO |

| NUMBER     | AREA | SUBJECT      | COPYRIGHT | DATE |
|------------|------|--------------|-----------|------|
| 1<br>Map 2 | PNGP | All the park | Territaly | 2000 |

**9. SLIDES**

| NUMBER | PLACE | SUBJECT | COPYRIGHT | DATE |
|--------|-------|---------|-----------|------|
|--------|-------|---------|-----------|------|

**Electronic Slides on CD**

| LANDSCAPES |                 |   |                                    |             |
|------------|-----------------|---|------------------------------------|-------------|
| 1-1        | Gran Paradiso   | View on the Gran Paradiso and Meyes narrow valley | Gran Paradiso National Park (GPNP) | Summer 2001 |
| 1-2        | Agnel and Serrù | Agnel and Serrù Lakes                             | GPNP                               | August 2001 |
| 1-3        | Valsavarenche   | Panorama with Alpine Ibex                         | GPNP                               |             |
| 1-4        | Rhêmes Valley   | Sotses glacier and Tsanteleina mountain           | GPNP                               |             |
| 1-5        | Rhêmes Valley   | Rhêmes stream in winter                           | GPNP                               |             |
| 1-6        | Valsavarenche   | Alpine Ibex grazing                               | GPNP                               |             |
| 1-7        | Rhêmes Valley   | Pastures at Vaudalettaz                           | GPNP                               | 2004        |
| 1-8        | Orco valley     | Roc narrow valley                                 | GPNP                               | 1991        |
| 1-9        | Soana valley    | Piamprato narrow valley                           | GPNP                               |             |
| 1-10       | Orco valley     | Larchs and Courmaon mountain                      | GPNP                               |             |

|      |                     |   |                 |             |
|------|---------------------|---|-----------------|-------------|
| 1-11 | Orco valley         | Dress lake                                      | GPNP            |             |
| 1-12 | Valsavarenche       | Nex traditional hamlet                          | GPNP            | 2003        |
| 1-13 | Soana valley        | Azaria plain                                    | GPNP            |             |
| 1-14 | Cogne valley        | Lillaz waterfall with Ibex                      | Luciano Ramires |             |
| 1-15 | Valsavarenche       | Eaux Rousses coloured waterfall                 | GPNP            |             |
| 1-16 | Gran Paradiso       | Panorama from the Gran Paradiso top             | GPNP            | Winter 2003 |
| 1-17 | Orco valley         | The sheer faces of Becchi della Tribolazione    | GPNP            |             |
| 1-18 | Cogne valley        | Nomenon mountain                                | GPNP            |             |
| 1-19 | Valsavarenche       | Levionaz narrow valley                          | GPNP            |             |
| 1-20 | Valsavarenche       | Nivolet meanders                                | GPNP            |             |
| 1-21 | Upper Rhêmes valley | Rhêmes stream                                   | GPNP            |             |
| 1-22 | Orco valley         | Gran Prà Ciamousseretto Alp                     | GPNP            |             |
| 1-23 | Orco valley         | Balma Rossa                                     | GPNP            | 2003        |
| 1-24 | Orco valley         | Young wood at Balma Rossa                       | GPNP            | 2003        |
| 1-25 | Soana valley        | Beech wood near Raie Hamlet                     | GPNP            |             |
| 1-26 | Cogne valley        | Tribolazione glacier                            | GPNP            | 2003        |
| 1-27 | Valsavarenche       | Gran Paradiso mountain                          | GPNP            | 2003        |
| 1-28 | Rhêmes valley       | Granta Parei mountain                           | GPNP            |             |
| 1-29 | Orco valley         | Alpine high pastures and Carro Mountain         | GPNP            | Summer 2004 |
| 1-30 | Valsavarenche       | Nivolet meanders                                | GPNP            | Summer 2004 |
| 1-31 | Valsavarenche       | Larch and Spruce wood at Orvielles              | GPNP            | Summer 2002 |
| 1-32 | Orco valley         | Nivolet lakes                                   | GPNP            |             |
| 1-33 | Cogne valley        | Stony round at Valnontey                        | GPNP            | Summer 2002 |
| 1-34 | Rhêmes valley       | Natural grasslands and Granta Parei mountain    | GPNP            |             |
| 1-35 | Rhêmes valley       | The hamlet of Rhêmes Notre Dame                 | GPNP            |             |
| 1-36 | Cogne valley        | Valnontey panorama                              | GPNP            |             |
| 1-37 | Cogne valley        | Cogne, Saint Orso plan and Gran Paradiso massif | GPNP            |             |

## Wildlife and flora

|     |               |                                       |                 |  |
|-----|---------------|---------------------------------------|-----------------|--|
| 2-1 | Rhêmes valley | Male Ibex (Capra ibex) in winter      | Luciano Ramires |  |
| 2-2 | Cogne valley  | Chamois (Rupicapra rupicapra) between | Luciano Ramires |  |

|      |                            |  |                  |             |
|------|----------------------------|--|------------------|-------------|
|      |                            | worthleberries in autumn                     |                  |             |
| 2-3  | Cogne valley               | Marmots ( <i>Marmota marmota</i> )           | GPNP             |             |
| 2-4  |                            | Blue hare ( <i>Lepus timidus</i> ) in winter | GPNP             |             |
| 2-5  |                            | Golden eagle ( <i>Aquila chrysaetos</i> )    | GPNP             |             |
| 2-6  | Valsavarenche              | Bearded vulture ( <i>Gypaetus barbatus</i> ) | Roberto Facchini |             |
| 2-7  | Cogne valley               | Ptermigan ( <i>Lagopus mutus</i> )           | Luciano Ramires  |             |
| 2-8  | Cogne valley               | Black grouse ( <i>Tetrao tetrix</i> )        | Luciano Ramires  |             |
| 2-9  | Rhêmes valley              | Larch wood in autumn                         | GPNP             |             |
| 2-10 |                            | Arolla pine wood                             | GPNP             |             |
| 2-11 | Nivolet lakes              | Cotton grasses ( <i>Eriophorum</i> sp.)      | GPNP             |             |
| 2-12 | Valsavarenche              | Soldanella alpina                            | GPNP             | 2003        |
| 2-13 | Cogne                      | Pulsatilla talleri                           | GPNP             |             |
| 2-14 | Cogne                      | Paradisea liliastrium                        | GPNP             |             |
| 2-15 |                            | Parnassius apollo                            | GPNP             |             |
| 2-16 |                            | Black woodpecker                             | GPNP             |             |
| 2-17 |                            | Cotton grasses                               | GPNP             |             |
| 2-18 | Agnel alp and Levanne peak | Alpine high pastures                         | Michele Ottino   | June 2004   |
| 2-19 | Orco valley                | Alpine high pastures                         | Michele Ottino   | June 2004   |
| 2-20 |                            | Polygono-trisetion                           | GPNP             |             |
| 2-21 |                            | Rodoretum                                    | GPNP             |             |
| 2-22 | Pelaud Rhêmes V.           | Humid zone                                   | GPNP             |             |
| 2-23 | Teleccio Orco V.           | Fens   | Michele Ottino   | August 2002 |
| 2-24 | Cogne                      | Fox  | GPNP             |             |

## Traditional and historical aspects

|      |                            |   |                |             |
|------|----------------------------|---|----------------|-------------|
| 3-1  | Orco valley                | Cow grazing near Nivolet                                | GPNP           | August 2001 |
| 3-2  | Vaudalettaz Rhêmes valley  | Traditional alp restored for biological uses            | GPNP           | 2004        |
| 3-3  | Ronco C.se, Soana valley   | Ancient fresco with Our Lady                            | GPNP           |             |
| 3-4  | Boschietto, Soana valley   | Ancient fresco on a rock                                | Michele Ottino | August 2002 |
| 3-5  | Barmetta, Soana valley     | Ancient chapel  | GPNP           |             |
| 3-6  | Roc narrow valley, Orco V. | Traditional shelter for food preservation said "Crotin" | GPNP           |             |
| 3-7  | Dejoz, Valsavarenche       | Woman with pannier                                      | GPNP           | 2004        |
| 3-8  | Valsavarenche              | Traditional fretwork                                    | GPNP           | 2004        |
| 3-9  | Valsavarenche              | Traditional fretwork                                    | GPNP           | 2004        |
| 3-10 | Park's Aosta valley side   | A boy carries Fontina cheese                            | GPNP           | 2003        |

|      |                             |                                       |      |      |
|------|-----------------------------|---------------------------------------|------|------|
| 3-11 | Park's Aosta valley side    | Fontina cheese preparation            | GPNP | 2003 |
| 3-12 | Ronco C.se, Soana valley    | Traditional copper forge              | GPNP | 2002 |
| 3-13 | Orco valley                 | Traditional copper objects            | GPNP | 2000 |
| 3-14 | Soana valley                | Traditional shoes said "scapin"       | GPNP | 2004 |
| 3-15 | Prascondù, Ribordone        | Prascondù Sanctuary                   | GPNP | 2001 |
| 3-16 | San Besso, Soana valley     | Saint Besso Sanctuary                 | GPNP | 2001 |
| 3-17 | San Besso, Soana valley     | Procession near Saint Besso sanctuary | GPNP | 2001 |
| 3-18 | Maison hamlet, Orco valley  | Antique mountain school               | GPNP | 1995 |
| 3-19 | Ceresole, Orco valley       | Grand hotel                           | GPNP | 1999 |
| 3-20 | Pont Valsavarenche          | Traditional barn said "rascard"       | GPNP | 1999 |
| 3-21 | Nivolet, Orco valley        | Royal mule track                      | GPNP | 2002 |
| 3-22 | Gran Piano, Noasca, Orco v. | Gran Piano Royal lodge                | GPNP | 2002 |
| 3-23 | Pondel, Cogne valley        | Roman bridge aqueduct                 | GPNP | 2002 |
| 3-24 | Orco valley                 | Chimney sweeper                       | GPNP | 1920 |
| 3-25 | Ribordone, Orco valley      | Neolithic rock engraving              | GPNP | 2002 |

## Park history

|     |                           |  |      |            |
|-----|---------------------------|--|------|------------|
| 4-1 |                           | Royal hunting wardens                        | GPNP | End XIX c. |
| 4-2 |                           | Royal hunting wardens                        | GPNP | End XIX c. |
| 4-3 | Orvieilles, Valsavarenche | King Victor Emanuel II near Orvieilles lodge | GPNP | 1860       |
| 4-4 | Cogne valley              | Park warden                                  | GPNP | 1950       |

## Surveillance and scientific research

|      |                         |   |      |           |
|------|-------------------------|---|------|-----------|
| 5-1  | Rhêmes valley           | Park Wardens' controls                              | GPNP | 2003      |
| 5-2  | Orco valley             | Park Warden control                                 | GPNP | June 2004 |
| 5-3  |                         | Park Warden in winter                               | GPNP | 2003      |
| 5-4  | Soana valley            | Park Warden confiscates poacher's weapons           | GPNP | 2003      |
| 5-5  |                         | Park Warden captures an Ibex                        | GPNP | 2000      |
| 5-6  | Cogne valley            | Chamois capture for scientific research             | GPNP | 2002      |
| 5-7  | Levionaz, Valsavarenche | Scientific sanitary controls on wildlife            | GPNP | 2002      |
| 5-8  |                         | Alpine Ibex radio tags                              | GPNP | 2003      |
| 5-9  | Seyvaz, Valsavarenche   | A capture of an Alpine Ibex for scientific research | GPNP | 2003      |
| 5-10 | Fosse, Rhêmes valley    | Radiotracking controls                              | GPNP | 2002      |
| 5-11 | Orco valley             | Snow monitorino                                     | GPNP | 2002      |
| 5-12 | Orco valley             | Snow monitorino                                     | GPNP | 2002      |

|      |                            |  |      |      |
|------|----------------------------|--|------|------|
| 5-13 | Cogne valley               | Scientific research about Red squirrel | GPNP | 2003 |
| 5-14 | Valsavarenche              | Global position system monitoring      | GPNP | 2002 |
| 5-15 | Herbetet, Cogne valley     | Wildlife controls                      | GPNP | 2003 |
| 5-16 | Cogne                      | A park warden shows to a baby his work | GPNP | 2000 |
| 5-17 | Nivolet, Valsavarenche     | Manual works of the park wardens       | GPNP | 2002 |
| 5-18 | Roc narrow valley, Orco v. | Park wardens make up footpaths damages | GPNP | 2003 |

## Visitor centres

|      |                          |   |      |      |
|------|--------------------------|---|------|------|
| 6-1  | Rhêmes Notre Dame        | The visitor centre about Bearded vulture  | GPNP | 1998 |
| 6-2  | Locana, Orco valley      | The visitor centre about chimney sweeping | GPNP | 2001 |
| 6-3  | Valsavarenche            | The visitor centre about Lynx             | GPNP | 2004 |
| 6-4  | Valsavarenche            | Diorama in the Lynx visitor centre        | GPNP | 2004 |
| 6-5  | Ceresole, Orco valley    | The visitor centre about Ibex             | GPNP |      |
| 6-6  | Valsavarenche            | Lynx visitor centre                       | GPNP | 2004 |
| 6-7  | Valsavarenche            | Lynx visitor centre                       | GPNP | 2004 |
| 6-8  | Noasca, Orco valley      | The visitor centre about park's geology   | GPNP |      |
| 6-9  | Ronco C.se, Soana valley | Copper forge visitor centre               | GPNP | 2002 |
| 6-10 | Ronco C.se, Soana valley | Copper forge hammers                      | GPNP | 2002 |
| 6-11 | Valnontey, Cogne valley  | Paradisio botanical alpine garden         | GPNP | 2003 |
| 6-12 | Valnontey, Cogne valley  | Paradisio botanical alpine garden         | GPNP | 2003 |
| 6-13 | Serrù, Orco valley       | Free exposition about high pastures       | GPNP | 1998 |

## Educational activities

|     |                     |   |      |      |
|-----|---------------------|---|------|------|
| 7-1 | Valsavarenche       | A park warden lesson to babies                  | GPNP | 2003 |
| 7-2 | Noasca, Orco valley | An educational lesson at the educational centre | GPNP |      |
| 7-3 | Cogne               | A park warden educational lesson in the river   | GPNP | 2000 |
| 7-4 | Cogne               | A park warden educational lesson at school      | GPNP | 2003 |
| 7-5 | Orco valley         | Park guide activity                             | GPNP | 2000 |
| 7-6 | Rhêmes valley       | Park guide activity in                          | GPNP | 2003 |

|      |                     |  |      |      |
|------|---------------------|--|------|------|
|      |                     | winter                                     |      |      |
| 7-7  | Valsavarenche       | A park warden lesson to babies             | GPNP | 2003 |
| 7-8  | Orco valley         | Watching through the park's telescope      | GPNP | 2003 |
| 7-9  | Orco valley         | To go on a trip with the park warden       | GPNP | 2003 |
| 7-10 | Bien, Valsavarenche | An orienteering lesson with the park guide | GPNP | 2004 |