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CONVENTION ON THE CONSERVATION OF EUROPEAN WILDLIFE
AND NATURAL HABITATS

Standing Committee

42nd meeting

Strasbourg, 29 November - 2 December 2022

**REPORT
OF THE VISIT OF THE INDEPENDENT EXPERT
TO THE SWISS NATIONAL PARK**

9-10 November 2021

*Document prepared by
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1. INTRODUCTION

The European Diploma for Protected Areas was awarded to the Swiss National Park (SNP) in 1967 (Res(67)23) and renewed 7 times (1982 - Res(82)6; 1987 - Res(87)6; 1992 – Res(92)16; 1997 – Res (97)16, 2002 – ResDip(2002)10, 2007 - CM/ResDip(2007)9 and 2012 - CM/ResDip(2012)6). The last renewal expires on 27 October 2022. To assess the opportunity to renew the Diploma another time a hybrid on-the-spot appraisal visit was undertaken in 2021.

The appraisal was organised in the context of COVID-19 precautionary measures and carried out in a hybrid way: through a series of video conferences with stakeholders and a field visit. From the Secretariat of the Bern Convention Marc Hory participated in some of the online meetings.

29th September 2021: Online meeting with the Director of the SNP

Ruedi Haller (SNP), Marc Hory (Council of Europe), Peter Skoberne (expert)

22nd October 2021: Online meeting with members of the the board of the Swiss National Park foundation (FNPC)

Heidi Hanselmann (President and representative of the State), Armon Vital (Vice-President and representative of the Canton Grisons), Christoph Flory (Pro Natura), Flurin Filli (SNP), Marc Hory (Council of Europe), Peter Skoberne (expert)

9th – 10th November 2021: on-the-spot visit

Meeting with SNP staff: Flurin Filli, Sonja Wipf, Hans Lozza

Meeting with mayors of the park communities: Riet Campell (Mayor of S-chanf), Emil Müller (Mayor of Zernez), Gabriella Binkert (Mayor of Val Müstair), Christian Fanzun (Mayor of Scuol), Philipp Gunzinger (Economy Forum Engiadina Bassa).

Field excursion to Grimmels, Ofenpass and dam of Ova Spin hydropower station accompanied by park ranger Not Armon Willy.

Visit of the **Visitor Centre in Zernez.**

25th November 2021: Online meeting with the members of the Scientific Committee

Prof. Dr Markus Stoffel (president), Dr Ueli Rehsteiner (vice president), Anea Schmidlin (research coordinator of the commission, Swiss Academy of Sciences), Ruedi Haller (SNP), Flurin Filli (SNP), Sonja Wipf (SNP, head of research and monitoring).

The 2020 annual report¹ and following documents and sources were considered:

- *Application file*, Council of Europe, 2012, document CE/Nat(67)24²
- *European Diploma (Krimml Waterfalls (Austria), Lüneburg Heath (Federal Republic of Germany), Muddus National Park (Sweden), Sarek and Padjelanta National Parks (Sweden), Swiss National Park (Switzerland))*, Council of Europe, 1967, document Res(67)23³
- Haller, H., A. Eisenhut & R. Haller (Eds.), 2013: *Atlas des Schweizerischen Nationalparks. Die ersten 100 Jahre*. Nationalpark-Forschung Schweiz 99/I, Haupt, Bern/Stuttgart/Wien.
- Kupper, P., 2012: *Wildnis schaffen – Eine transnationale Geschichte des Schweizerischen Nationalparks*. Nationalpark-Forschung Schweiz 97, Haupt, Bern/Stuttgart/Wien.
- *Resolution on the renewal of the European Diploma of Protected Areas awarded to the Swiss National Park (Switzerland)*, Council of Europe, 2012, document CM/ResDip(2012)6⁴
- *Schweizerischer Nationalpark Geschäftsbericht – 2020*. Eidgenössische Nationalparkkommission ENPK, Stiftung Schweizerischer Nationalpark Zernez, 2020.

¹ <https://rm.coe.int/08-swiss-national-park-annual-report-2020/1680a2066a>

² <https://rm.coe.int/09000016806bb097>

³ https://search.coe.int/cm/Pages/result_details.aspx?ObjectId=090000168050aeb9

⁴ https://search.coe.int/cm/Pages/result_details.aspx?ObjectId=09000016805ca393

- Stauffer, C., 2002: *Expert report on renewal of the European Diploma of Protected Areas awarded to the Swiss National Park (Switzerland)*, Council of Europe, 2002, document PE-S-DE (2002) 12⁵
- Official web page of the SNP: <https://www.nationalpark.ch/en/> (November 2021)

Acknowledgement:

I would like to thank the organisers of the visit, in particular Flurin Filli, as well as to all I met online or physically for the helpful, competent, enthusiastic and very open assistance during my assessment mission.

2. GENERAL DESCRIPTION

The Swiss National Park (SNP) is a high mountain nature reserve (altitude 1,380 to 3,173 m) situated in the Lower Engadine Dolomites. The SNP, established in 1914, is one of the first national parks in Europe and the first national park of the Alps (IUCN-category Ia - wilderness area). There are no inhabitants nor human activities within the reserve. Visits are possible using special marked trails, only.

The National Park is well known for its geological, geomorphological and biotic features, typical for this part of the Alps. Alpine ecosystems are distributed regarding climatic and orographic conditions from forests to alpine meadows, alpine lakes, and rocky habitats. The SNP is home to some iconic alpine species, such as chamois, ibex, red deer, Alpine marmots and birds such as golden eagles and bearded vultures. All three representatives of the alpine large carnivores: wolf, brown bear and lynx are present within the park. Additionally, the presence of otter was confirmed recently, as well.

Calamities like large snow avalanches, landslides or forest fires, bark beetles invasions are set aside, so natural regeneration and succession can be observed and studied.

There are only two major areas of human disturbance: the transit road crossing over Pass dal Fuorn and part of the hydropower system on Spöl river.

The SNP shares a border with the Italian Stelvio National Park/ Stilfser Joch.

The surface area of the reserve is 17,030 hectares and is nested within an UNESCO Biosphere area (see legal protection status).

The Nutcracker is the symbol of the SNP.



⁵ <https://rm.coe.int/group-of-specialists-european-diploma-for-protected-areas-28-29-januar/1680927979>

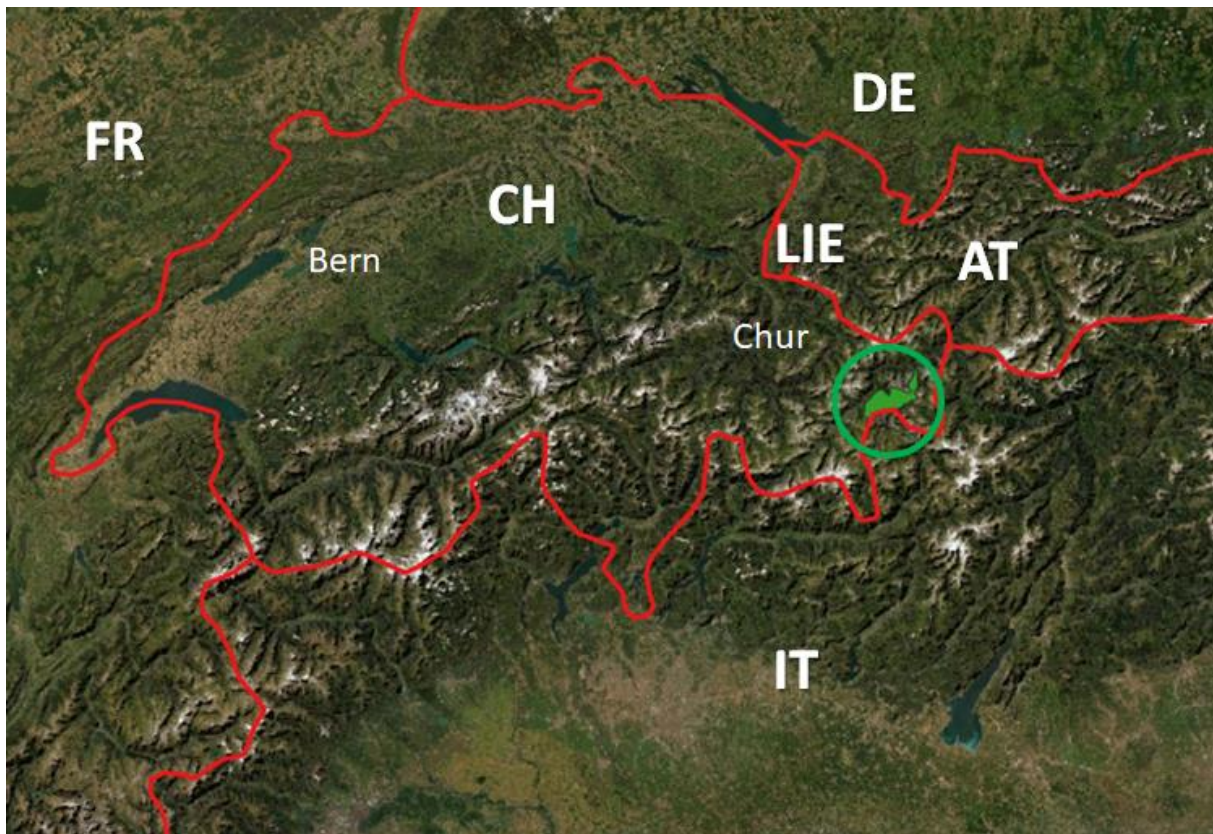


Figure 1: General situation of the Swiss National Park.

3. EUROPEAN INTEREST

In the application form of the SNP in 1979, the European interest was justified by this sentence: “The Swiss National Park is the only integral natural reserve in the Alps in which a large surface (168 sq. km) has been completely isolated from human influences and has been abandoned for over 50 years to its natural evolution in the broadest sense of the term.”

This is still true due to the successful management of the National Park: very good co-operation with local communities as well as other actors in the region, good visitor management and effective education. The pristine natural character of the area remained untouched for more than 100 years. It is an invaluable mirror of natural processes that were and still are systematically monitored. These time series are unique in Europe and have an exceptional scientific value.

The importance of assets and good management were recognised by UNESCO in 1979 (Biosphere Reserve) and by IUCN in 2021 when the Swiss National Park became Switzerland’s first Green List site.

I have to emphasise that the prevention of such a large area from any human intervention for hundred years is not obvious per se. It is the result of continuous efforts that step-by-step built local and general acceptance of a non-intervention zone at the end valued at national level. Thus, it is not likely that even potential ideas to open this area for any kind of development have a chance to become reality.

The guaranteed reserve status of the SNP remains the corner stone of its European importance.

Conclusion:

The Swiss National Park is of exceptional European significance and importance for the conservation of biological diversity as one of the largest and longest managed wilderness areas in the Alps.

4. LEGAL PROTECTION STATUS

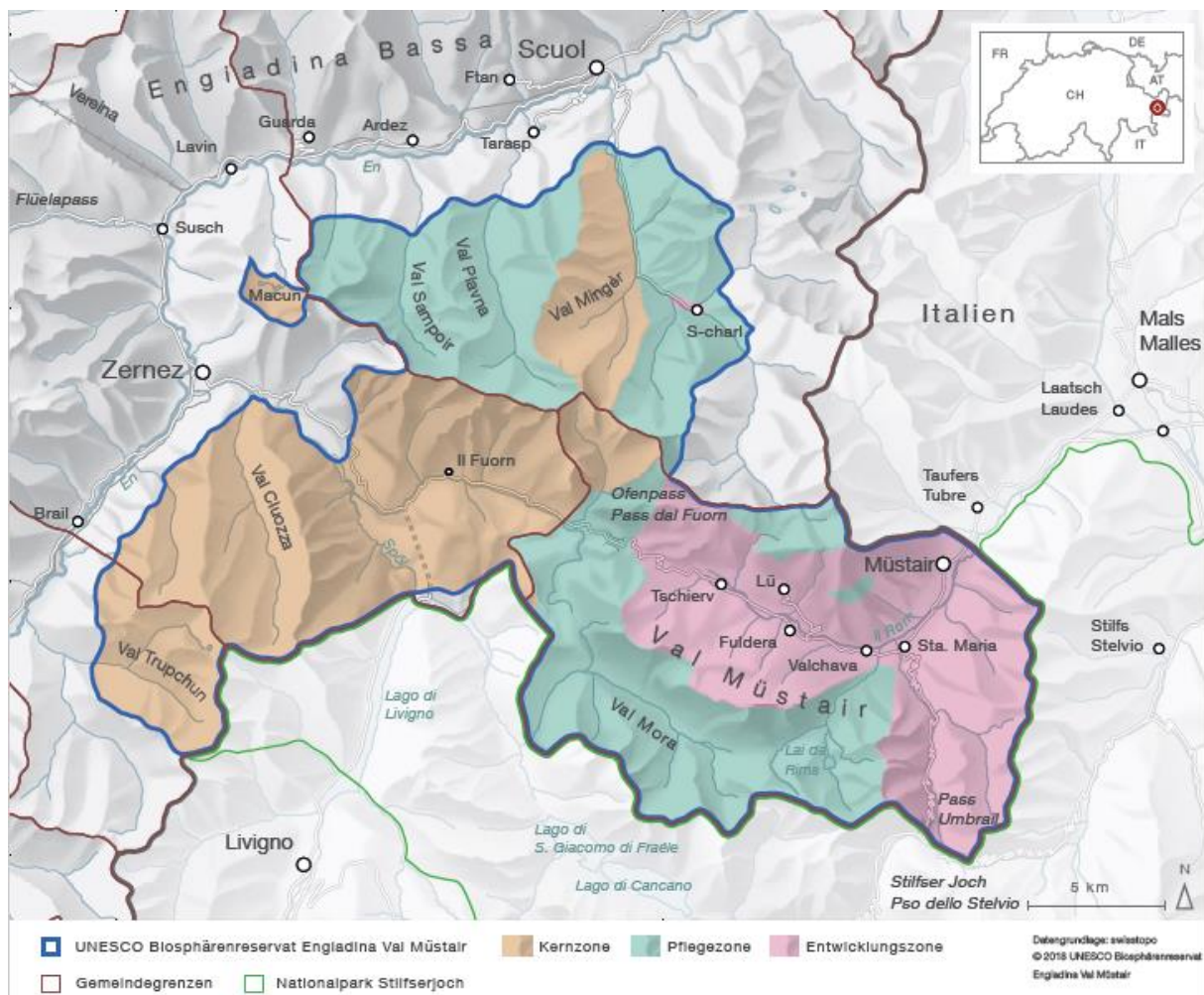


Figure 2: Situation of the SNP and UNESCO MAB Area (Source: SNP, 2021)

The history of protection of part of the Engadin mountains goes back to 1904. In 1909 the Swiss Society for the Protection of Nature took on lease the Cluozza valley from the municipality of Zerneš for a period of 25 years. The park was created on 1st August 1914 by federal decision. After several changes as results of negotiations with the municipalities, new National Park regulations were introduced in accordance with federal law in 1980 (Bundesgesetz über den Schweizerischen Nationalpark im Kanton Graubünden (Nationalparkgesetz))⁶, and ratified on a cantonal basis in 1983. Detailed provisions were issued by a by-law in 1983⁷. These provisions are ensuring the reserve status of the area – ban of all human activities.

The federal law is defining relations with the municipalities, including financial implications, the governance and the financial basis of the national park. Governance structure guarantees relative stable policy independent of possible political pressures.

In 2010 the Nature and Cultural Heritage Protection Act was adopted. This law regulates the system of protected areas in Switzerland.

It seems reasonable to further use the National Park Law of 1983 for the SNP as the governance system and financing proved to be successful and there is no need to bring the SNP under the umbrella of the Nature and Cultural Heritage Protection Act.

⁶ https://www.nationalpark.ch/tasks/sites/en/assets/File/D_Nationalparkgesetz.doc.pdf

⁷ https://www.nationalpark.ch/tasks/sites/en/assets/File/D_Nationalparkordnung.pdf

In 2000 the 3.6 square kilometre area of the Macun lakes were included in the reserve. As the idea of creating an outer zone around the Park was rejected by the local population, the Macun area remains isolated from the main park area.

As in the near future it is not likely that the core area could be enlarged so as to include Macun, additional efforts could be done in finding a solution with the municipalities of Zernez and Scuol to enlarge the buffer zone around the Macun area.

Definitely, Macun should be formally included in the European Diploma Area.

UNESCO MAB area

The Swiss National Park was designated as the first Swiss biosphere reserve by UNESCO in 1979. The borders of the MAB reserve were identical to the boundaries of the national park.

In 1995, UNESCO in Seville substantially adapted and modernised the concept of biosphere reserves, grounded on a 3-zone system: core zone, transitional (buffer) zone and development zone. Discussions started to meet the new criteria. In Val Müstair, the regional nature park Biosfera Val Müstair was designated according to the Nature and Cultural Heritage Protection Act in 2010. On 2 June 2010 UNESCO provisionally granted the label with conditions to enlarge the buffer area.

In 2015, the municipality of Scuol approved the expansion of the biosphere reserve to the northern side and has become the third cooperation partner since 1 January 2016. In 2017, UNESCO recognised the MAB area - Val Müstair - Parc Naziunal Biosphere Reserve^{8, 9}.

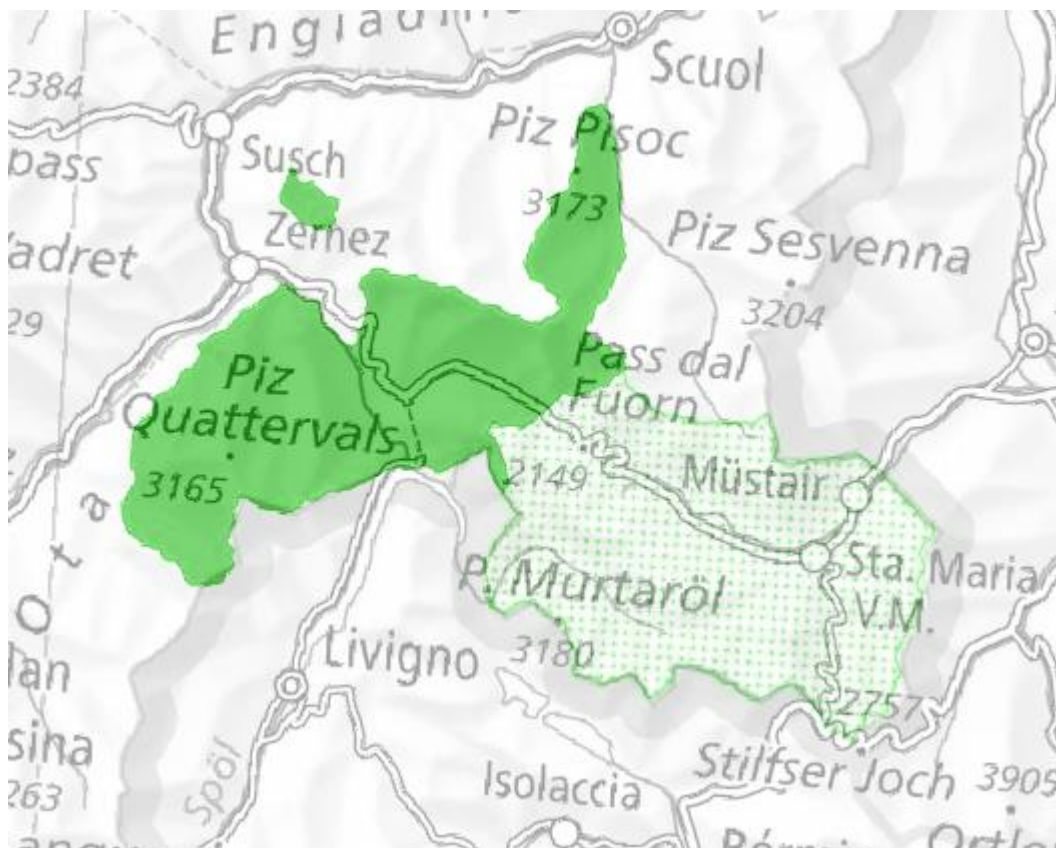


Figure 3: The SNP and the regional nature park Biosfera Val Müstair
(Source: Bundesamt für Landestopografie, WMS BGDI, Schweizer Pärke (Zonierung)¹⁰)

⁸ <https://www.engadin.com/en/unesco-biosphere-reserve-engadina-val-mustair>

⁹ <https://en.unesco.org/biosphere/eu-na/val-mustair>

¹⁰ <http://wms.geo.admin.ch/?VERSION=1.3.0&lang=de>

Conclusion:

Existing legal regulations are considered as a solid basis for the future conservation of the Diploma holding area and should remain as such (1983 Law). In perspective, the buffer area of the SNP should be legally supported.

5. MANAGEMENT

Institutional arrangements

The land of the SNP is public, owned by four municipalities (Zernez – 68,6%, S-chanf – 13,5%, Scuol – 13,2%, Val Müstair – 4,7%). Since 1914 it is leased by the Swiss National Park foundation and dedicated to nature protection as national park.

The management authority is situated in Planta manor house in Zernez. Since 2008 they are running a new and substantially enlarged National Park Centre with exhibitions, information about the SNP and other public relation activities.

Since 1st October 2019, Dr Ruedi Haller (working in SNP since 1997) is the director of the SNP.

On 1st January 2020, a new organisational structure was implemented (see picture), introducing a new department for "Nature Protection and Nature Conservation Management" as one of the three pillars of the SNP. The others are "Research and Monitoring" and "Communication and Public Relations".

All three pillars are supported by horizontal services: ranger service, IT service and administration. With this reorganisation the basic working clusters are shaped more logical. Greater emphasis and visibility are given to research and monitoring. Despite more independent position they are closely related to nature protection, management of resources, visitor management and communication. Beside traditional monitoring, their role in basic research increased as some staff members are high-profiled scientists.

Executive management consists of the director and Heads of the Nature protection and Nature Conservation Management department, Research and Monitoring department and the department of Communication and Public Relations. It is supported by an expanded executive management group represented by the leaders of the supporting services.

Staff in the national park administration is a coherent team, enthusiastic, professional and open for cooperation. Long tradition in management is certainly resulting in the achievements of administration.

There is a good coordination and cooperation between departments. For instance, rangers are controlling park regulations, maintaining visitor infrastructure, participating in monitoring, assisting and raising awareness of visitors. IT and GIS service is supporting rangers in data collection and retrieve them to the information system. Monitoring is coordinated by the research department. Organised data is available for information and research.

A good example is the cooperation with the municipality of Zernez which provides seasonal (June to October) freelance guides (about 25). They have environmental background and are trained by NP staff. They are leading different excursions, raising the awareness of visitors about natural assets and behaviour in the SNP. Their presence contributes to the visibility of the SNP and is reducing possible violations of the park rules at critical visiting points. It is an important way of making active links between locals and the SNP, contributing to their economy and strengthening the acceptance of the park.

In January 2020, the SNP received the official status of "Park of National Importance". The status allows the SNP to request financial support from the canton of Grisons, as well as from the municipalities. This process is ongoing and the current status (2021) is very promising: 16 out of 19 municipalities in the region have announced their support. This is a very convincing way for reinforcing the acceptance! In the last decade

cooperation of the park administration with local communities significantly improved. It is of utmost importance that this trust building continues.

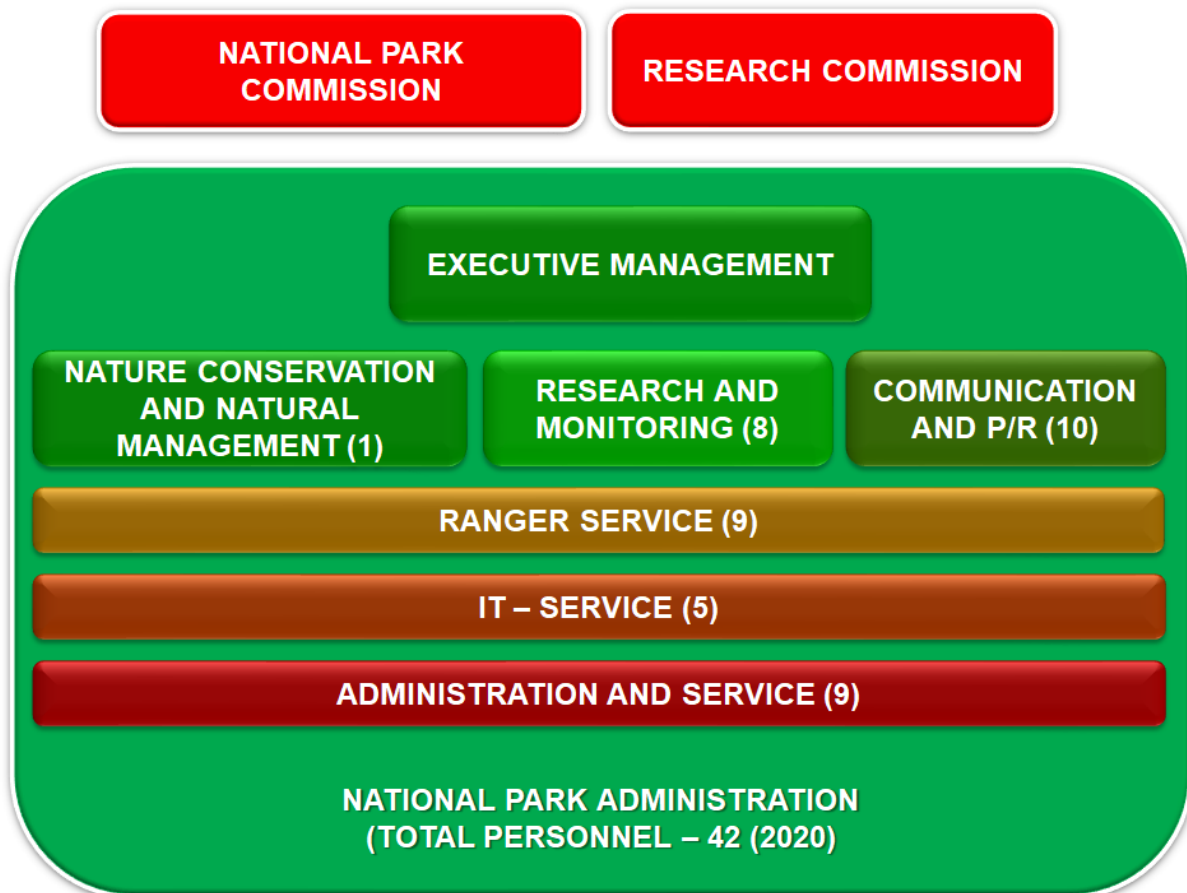


Figure 4: Governance and organisational structure of the SNP.

The organisational structure is open for development and adjustment to changes, as for instance, covid pandemic. They had to adapt to different structure of visitors, different sanitary rules regarding the access to the Visitor Centre and different events, as well as using other park infrastructure.

There are two governing bodies at federal level:

Federal National Park Commission (Eidgenössische Nationalparkkommission – ENPK)

The SNP is established and governed by the Swiss National Park foundation represented by the Federal National Park Commission (FNPC). It consists of 9 members elected by the Federal government.

On behalf of the state, they deal with all administrative and legal duties concerning contracts with land-leasing municipalities. The FNPC elects members of the Park's administrative body and is responsible for applying for the necessary funds to ensure the running of the Park.

Composition of the Commission:

- Pro Natura: 3 members
- Swiss Confederation: 2 members
- Swiss Academy of Science (SAS): 2 members
- Canton Graubünden: 1 member
- Park municipalities: 1 member

Research Commission (Forschungskommission des Schweizerischen Nationalparks – FOK-SNP)

The main co-ordinating body for all research activities within the SNP and UNESCO MAB Area is the Research Commission. It was founded within the Swiss Academy of Sciences in 1916. The Research Commission comprises around 15 members from Swiss research institutions and the research coordinators of the target area. FOK-SNP promotes and coordinates research projects. Most members conduct their own research projects in the Biosphere Reserve. The Commission is led by a Steering Group of 6 members, 2 of them are representatives of the SNP.

In fact, all research within the broader protected area is in the hands of the Research Committee. So, it is very important that they are tight relations between the SNP management and the Commission to ensure that research projects are answering the needs and challenges of the park actual conservation issues and to continue efficient monitoring. For the time being it seems that this positive cooperation is achieved and is functioning.

Strategic documents and the Management Plan

For general long-term orientation of main strategic areas (nature conservation, research and communication/education) guiding principles (Leitbild) are set. The last document was adopted by ENPK in 2007, formally checked in 2021.

The key document that is framing the work of the management authority and sets guiding principles is the Strategy 2017–2023, adopted by the ENPK in December 2016. It is a brief but very clear document addressing all main strategic areas. For each area goals, targets, orientations and indicators are set. A chapter with orientations for resource management is included. In annex, descriptive measures for each cluster are set. Measures are marked for each implementing period as permanent measures, measures planned to be implemented in period 2017–2019 or in period 2020–2023.

It is a simple management frame that is reviewed every year and adjusted and is the basis for annual work programmes. It can be easily monitored and reported. Each year the administration publishes a very rich and transparent report.

The administration started with the preparation of a strategy for next period. European Diploma long-term recommendations should be considered while drafting the updated strategy.

Financial matters

Financing is stable, core financing is secured by the federal government based on the SNP law. Additional incomes are provided by Pro Natura (since 1909 every member of the society contributes 1 CHF for the SNP), projects and different donations. The most important change in financing was introduced in 2021, when the national importance of the SNP was formally recognised and set into action. This status enables cantons and municipalities in the region to contribute to the SNP budget. This is a clear sign of recognition of the importance of the SNP for the region.

Financial details are available in annual reports of the SNP.

Nature conservation and natural resources management

As the SNP is a strict reserve there are no economic activities in the area. However, some limited activities are connected with the regular maintaining of the park infrastructure, like trails, bridges, research shelters.

Violations of the park rules are low, however, they doubled in 2020, as number and structure of visitors changed because of the covid situation. Many visitors were not used to visit nature and were less conscious about the park rules. In 2020, 36 fines were placed. Most of them were related to people leading dogs or not staying on the trails. The SNP authority pays a lot of importance to environment friendly measures in various fields. For instance, they are even reducing parking places along the road encouraging public transport. When staying in Zerne, guests have free public transport. Expense is covered from the tourist tax. There are greening efforts in waste management and energy consumption, as well.

Research and monitoring

Research is a historical cornerstone of the SNP at different levels:

- basic research by different research institutions from Switzerland and abroad. Every research has to be approved by the FOK-SNP. In 2020 61 research projects were approved, most in the field of hydrology, forestry and zoology. Since the reorganisation in 2020, the direct involvement of the SNP in research projects increased.
- continuous research – long term monitoring: different issues are regularly monitored by the same or comparable methods, in order to make long term series of data available (e.g. since 1914). Some climatic, botanical (alpine flora) and zoological (ungulates, large carnivores, micro mammals, selected insects) monitoring schemes are more or less constant, whereas new challenges are creating new monitoring programmes. Some sampling grids of the federal Biodiversity Monitoring Switzerland (BDM)¹¹ and Landesforstinventar (LFI)¹² are taking place within the borders of the SNP, as well. The SNP is taking part in different international projects in the Alps, like the Global Observation Research Initiative in Alpine Environments (GLORIA) project. In this project the long-term monitoring series contributed to convincing results.
- coincidental data collection: rangers are reporting data among others on selected species, phenological data, the same input approach is used for all other data about the occurrence of certain species,
- digitalisation of historical data is a part of the research work, as well. In 2020 herbarium collection of Bündner Naturmuseum was digitalised, mostly from period 1914 – 1950 from the area of the SNP.

Let me mention only some current research/monitoring issues: systematic photo trapping since 2018 in the area of Ofenpass (more than 1 million photos!), influence of visitors on physiological stress to red deer and chamois, ecological role of red fox, soundscapes (very interesting results as the research covered the lock down period) in relation to the Ofenpass road, monitoring of neophytes along the Ofenpass road, questioning of visitors...

I would like stress once more the importance of the FOK-SNP role in decisions regarding the research in approving projects and in co-financing them. As most of the board members are distinguished scientists from eminent national research institutions there is a risk that they are not very familiar with the situation and research needs within the SNP. So it is very important that existing good and tight relations with the SNP administration continue.

Financing of the research seem to be stable, however, since the recent strengthening of research work in the SNP administration we can anticipate that research activities will increase and this should be reflected in future planning of finances.

But even more important it is to secure the performance of continuous monitoring. As in the past many of these basic researches in taxonomy and regular monitoring were part of the institutional research programmes, whereas now they are not and regarded as routine service. This is reflected in financial terms, as well, as more money is needed to carry out such monitoring to ensure that the valuable timeline is not broken. This data series are treasures of the SNP and beyond!

Information technology

IT support of the SNP administration is at high level. It is a silent support: not really seen but recognised through results. Well organised and maintained flow of many different data sets which in all these years became huge is a demanding task. The IT team seems to be very innovative, enthusiastic and well connected with all other departments. They are answering to needs of staff members and continuously technically adapt to new possibilities for hardware and software. There is a permanent care for gradual digitalisation of historical analogue data, and very important regular updating of the data sets from current monitoring and research.

¹¹ <https://biodiversitymonitoring.ch/index.php/en/home-footer>

¹² <https://www.lfi.ch/index.php?lang=de>

Existing managed data are transparent and accessible. A perfect overview of the data sets, publications, reports and projects is available publicly at SNP Data Center¹³.

The real potential of data can be seen after their use, whether in scientific papers, popular science, media, park publications, exhibitions, very well managed web page.

In internet era quality of available digital information is very dependant of its updating. Public data seems to be regularly updated.

Visitor management and public relations

Visits of the SNP are very limited and controlled. Visitors can use only 21 trails, that are defined by law and maintained by the SNP staff. These trails are marked and equipped by park infrastructure (information boards, information points, parking places, footbridges, etc.). They are clearly indicated in all information material – maps, guiding booklet, flyers, as well as in useful cell phone application.

There are automatic counters for counting visitors. The results of counters show a relative stable trend of visitors (about 90,000 yearly, but a significant increase (51,2%) in ‘covid’ year 2020. It is not an absolute number of visitors, but as the same method was used for counting, it is a valid indicator.



Figure 5: Number of visitors in the SNP

(Source: Schweizerischer Nationalpark Geschäftsbericht – 2020. Eidgenössische Nationalparkkommission ENPK, Stiftung Schweizerischer Nationalpark Zernez, 2020).

The structure of visitors changed: after the lockdown in April 2020, visits of foreign tourists and schools decreased, whereas visit of Swiss people increased, as they could not travel abroad. Most of them visited park trails, as the visitor centre was closed due to sanitary restrictions till May 2020 and the total number of visitors of the centre remained stable (about 20'000) visitors. These changes created pressures to starting points of the trails – a challenge for visitor management. On the other hand it represented an extra effort for the staff, dealing with many unexperienced visitors, many of whom were neither aware of the high mountain conditions nor of the rules of the SNP.

The trend of visitors was very similar in 2021. The side effect of the increase of local visitors is that the recognition of the SNP at national level is better and more appreciated.

An important role is played by freelance local guides as explained before. SNP staff is systematically and directly involved in education process for kinder gardens and schools located within the park.

SNP staff is paying special care to media, supporting them with timely, accurate information in text and pictures. The Website¹⁴ of the SNP is very rich and regularly updated. In covid period, visits of the web page increased by 34%, and is following the trend of physical visits. Similar increases are noted for the numbers of followers of

¹³ <http://www.parcs.ch/snp/index.php>

¹⁴ <https://www.nationalpark.ch/en/>

Facebook (+16%) and Instagram (+67%). The free application for visitors iWEBPARK was downloaded 6316 times in 2020 (+91% in comparison to 2019).

Relations of the SNP to international organisations

Beside rich cooperation with local municipalities, regional municipalities, canton Graubünden and Swiss government, the SNP has many international relations. I will limit to most important ones:

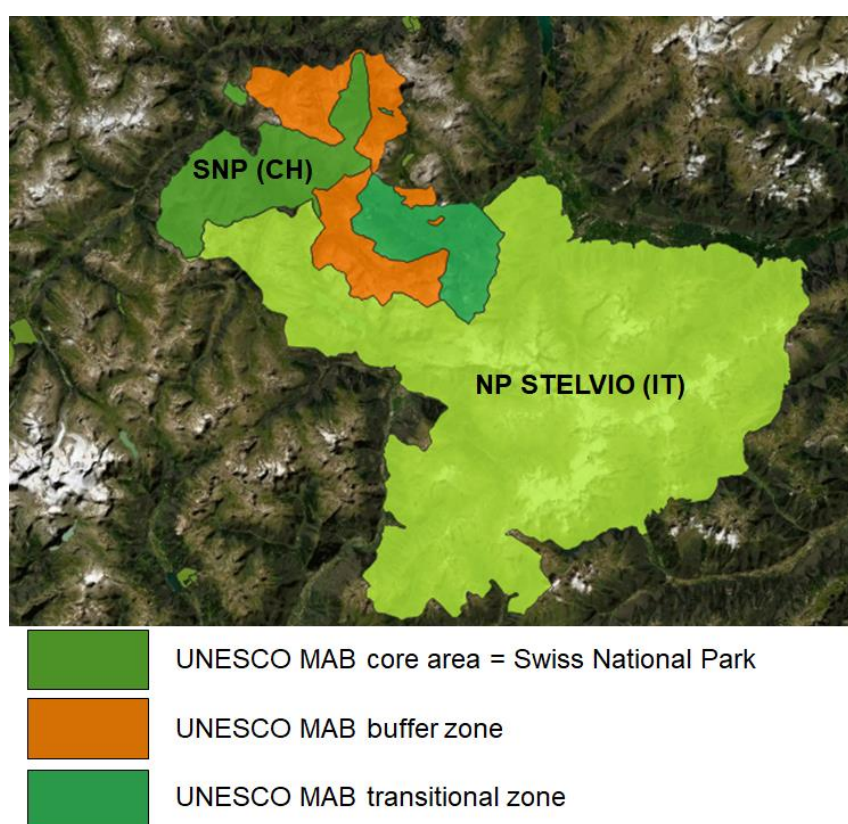
- UNESCO – mostly in cooperation with the Council of the UNESCO Biosphere Area,
- ALPARC network of alpine protected areas (e. g. Danilo Re memorial, projects),
- IUCN – Green List,
- Council of Europe – European Diploma.

Conclusion:

Management is in place and is operational.

6. REVIEW OF THE RECOMMENDATIONS OF THE RESOLUTION CM/RES DIP(2012)6 ON THE RENEWAL OF THE EUROPEAN DIPLOMA OF PROTECTED AREAS AWARDED TO THE SWISS NATIONAL PARK (SWITZERLAND):

Take all necessary measures to fulfil the UNESCO condition that the national park, which is the core zone of the “Biosfera Val Müstair/Parc Naziunal” biosphere reserve, be entirely surrounded by a buffer zone;



*Figure 6: SNP, UNESCO MAB and NP Stelvio
(Sources: WCMC WDPA, Nov. 2021; Swiss National Park; ESRI Satellite).*

Part of the UNESCO condition was realised through designation of the UNESCO MAB in Scuol municipality in 2015, still there is no buffer zone in Zernez and S-chanf municipality.

In general, there are positive steps towards the establishment of the buffer zone. However, this can only be achieved through designation on basis of national law under condition that the entire municipality is within the protected area. This is not acceptable for local people and even not necessary to achieve goals of the buffer zone. For instance, areas on the left bank of the En/Inn River need no strict protection but sustainable agriculture. Zoning could be a possible solution. There is a good participatory approach in finding a solution and it should continue. It is very important that before any legal decision is taken, communities concerned are fully aware of the consequences of the protection status: positive (e. g. advantages for bio-farming, tourism) and negative (more complicated, time-consuming procedures, limitations for tourism facilities). People, living in this area have to be sure of their economic secured future, in order to maintain valuable cultural landscape, cultural heritage and their Rhäto-Roman identity. The process is going in a promising direction; the SNP staff is playing an important role in confidence building.

Ensure that staff numbers are sufficient to comply with existing requirements and grant sufficient additional resources with a view to the celebration in 2014 of the 100-year jubilee;

Done. The centenary jubilee in 2014 was not only a very successful event with wide response and publicity, but it raised the positive image of the SNP and acceptance at local, regional and national level. It is still possible to recognise this positive momentum of that event – in staff building, financial contributions, development of activities, more positive relations to the municipalities, positive reactions of visitors, etc.

Continue to raise among local inhabitants, municipalities and visitors, the awareness of the return of large carnivores, working in close co-operation with the Hunting and Fishing Department of the county of Graubünden

In the park brown bear, wolf, lynx, otter and beaver are present. There are no conflicts expected within the park because of the reserve status. In 2021 there was only one female wolf monitored within the SNP without any indications to form a pack. Nevertheless, as wolf population in Switzerland is spreading it is very likely that they will appear in agricultural surroundings of the SNP. Contacts and consequently conflicts with sheep breeders are expected in the near future.

Although the SNP is not directly involved in this issue it is important that they contribute with their knowledge, skills and capacities to address large carnivores' problem and help local population to prevent and minimise damages. Large carnivores represent a very emotional part of nature conservation and can quickly be connected to national park issues.

In 2020, a referendum took place in Switzerland on a new hunting law, which intended to delegate the management of wolves and other large carnivores from the federal government to the cantons. The new law was rejected, and large carnivores will continue to be strictly protected. Nonetheless, the local population must be involved in this issue.

The SNP has applied to the federal government for a major project that will 1) record and document the wolf presence in the entire Engadin greater area; 2) regularly assess acceptance among the local population; 3) analyse the effects of wolves on other species (ungulates, red foxes, small mammals), and 4) conduct vegetation surveys to study the effects of large carnivore presence on the ecosystem in and around the SNP. The project will be carried out in cooperation with the Office for Hunting and Fisheries of the Canton of Grisons and academic partners. It will take place in the greater region of the SNP. This project is very important for the SNP for raising people's awareness about large carnivores and it is important to start as soon as possible. Unfortunately, there is no decision about the project from the federal government.

It would be reasonable to initiate and contribute to activities to assist sheep breeders with implementing prevention measures (e. g. fencing, night closure, sheep dogs ...) and to provide both, theoretical and practical support.

Initiate studies with the different ministries and authorities concerned on the possibilities of minimising the impact of the Pass dal Fuorn road

In 2017 measures were taken to improve the safety of National Park visitors in all parking areas and in those places where they have to cross the road: speed limits were reduced and warning signs in the vicinity of parking areas were installed. At most critical areas a speed limit of 60 km/h was introduced. The measures have been successful. Visitor safety improved by means of speed reductions at road crossings. Nevertheless, traffic noise is still a problem. The Covid-19 pandemic made it possible to further assess the effect of noise near the road during the lockdown in April and May 2020. It stimulated a new PhD project investigating the impact of traffic noise on (forest-breeding) songbirds. The study started in July 2020 and will provide new evidence of the impact of traffic noise on wildlife species in the SNP. Studies and consequently adequate measures should continue.

Continue the close co-operation with the neighbouring Stelvio National Park

On an operational level (surveillance of poaching activities, bearded vulture breeding or exchange of data on marked ungulates), the collaboration is well in place, mostly with neighboring Lombardia part of the Stelvio NP. However, there are fewer common actions on higher organisation level, partly because of the covid situation and partly because of the complex governance system in Stelvio NP, because the national park is managed by 2 regions (Trentino-Alto Adige/Südtirol and Lombardia) and the federal government.

As the Stelvio NP represent an important buffer zone for the SNP it makes sense that monitoring and activities are coordinated. It is very appreciated that on the ground cooperation is in place when there is a common need. However, efforts to establish more formal and systematic cooperation should continue, making good use of possible favorable political situation.

Consider the enlargement of the European Diploma area to include the whole of the Biosphere Reserve.

The focus was on enlarging the buffer area and later to include the whole complex to the existing European Diploma site.

As there is no formal procedure needed for enlargement of the European Diploma site, but by simple notification of the competent authority to the Secretariat of the Bern Convention, I suggest that this step is done in parallel and gradually to the enlargement process.

Certainly, it makes sense to immediately include the Macun area (send map with short description and justification to the Secretariat). Similar process can be done for Scuol and Val Müstair part of the UNESCO MAB Area.

Issues not covered by previous recommendations
PCB pollution in sediments of the Spöl river

At the border with Italy there is a large dam (Punt da Gal - build in 1970) of the accumulation lake Lago Livigno in Italy. Below the dam there is a gorge (within the SNP) of the river Spöl with another accumulation (build in 1968) and Ova Spin waterpower station as a part of a large system for producing electricity¹⁵. For anti-corrosion coating for hydroelectric power plant polychlorinated biphenyls (PCBs) was used. These chemicals are highly toxic and cancerogenic. In 1972, Switzerland banned PCB-containing substances, but the power plant system was already built.

In 50 years PCBs were gradually washed out, carried downstream by water and accumulated in the river sediments. In September 2020, national park rangers found a dead eagle owl. The carcass was examined. The load of PCBs in this bird was 20 micrograms per kilogram of body fat – that's thousands of times above normal levels for wild animals¹⁶.

¹⁵ <https://www.ekwstrom.ch/anlagen/uebersicht.html>

¹⁶ <https://www.empa.ch/web/s604/pcb-im-nationalpark>

PCBs are fat-soluble pollutants that accumulate in the fatty tissue of fish and they concentrate further up in the food chain. So, apex predators are very vulnerable to PCBs. These chemicals are hazardous to humans, as well, and waters from Spöl are floating downstream towards the Black Sea.

In February 2021, the environmental authority of the canton of Graubünden ordered the remediation of the upper reaches of the Spöl over a length of 2.9 kilometres, but a total clean-up is needed. This is of course a very complex and costly task, but risk for humans and nature is too high. The power plant company Engadiner Kraftwerke AG (EKW), the environmental office of the canton of Graubünden and the administration of the Swiss National Park are discussing possible ways to address this remediation. Municipalities are involved too, as EKW is an important player in the local economy. Probably federal bodies should be involved, as well. This is at the moment the most serious problem in the SNP and should be comprehensively considered, timely addressed and completely solved.

Climate change

Recommendation No. 206 (2019) of the Standing Committee of the Bern Convention, adopted on 6 December 2019, on nature-based solutions and management of protected areas in the face of climate change, is addressing EDPA, as well:

- Ensure adaptive management in the context of climate change is included, as appropriate, in Resolutions for the award or renewal of the European Diploma for Protected Areas (EDPA);
- Support the involvement of Emerald Network and EDPA sites in testing ways of scaling up and transferring nature-based solutions, as a response to climate change and for the prevention of natural disasters.

In case of the SNP the character of strict protection gives not much possibility for active mitigation management, but it is a splendid occasion to monitor changes in biodiversity including changes that are linked to climate change. Species on extreme habitats and on the limit of different biogeographical regions are very good indicators in this respect. Some impressive studies were done about influences of climate change to biodiversity. One of them contributes to the monitoring of flora changes at high mountain peaks in the Eastern Alps and the Carpathians¹⁷, where the value of long-time monitoring is clearly expressed, as floristic data back to the beginning of 20th century exist.

At the end, the importance of a buffer zone is highlighted from this perspective, as well. A close to nature surrounding ecosystems can mitigate effects of climate change, if they are large enough and properly managed. This should be taken into account in the enlargement of the buffer zone.

European Diploma visibility

I regularly pay attention to the visibility of the European Diploma on the spot. The European Diploma logo is not used very much. One of the qualities of the information system for visitors is, that the design is very light and not crowded with information and signs. That should remain, but the EDPA logo could be placed and explained on the web page as well as on suitable places in the information centre or starting points.

7. CONCLUSIONS AND RECOMMENDATIONS

Specific conclusions about the evaluation work (for Group of Specialists)

- Following Council of Europe Secretariat's recommendations for evaluation work the appraisal was realised in a hybrid way: through a series of virtual meetings and a short on-the-spot visit. The first virtual meetings without prior personal contact were rather formal and it took some time to break the ice. But it was possible to get a basic impression about the situation and key issues. So, the on-the-spot visit was more focused and efficient. Regarding the discussion with local representatives, live contact was inevitable. Virtual meetings cannot satisfactorily create the atmosphere and the feeling of

¹⁷ Steinbauer, M.J., Grytnes, J.A., Jurasinski, G. *et al.* Accelerated increase in plant species richness on mountain summits is linked to warming. *Nature* **556**, 231–234 (2018).

the situation in the protected area. I would certainly advocate for such combined working method: compile basic information within virtual meetings and focus on key issues during the on-the-spot visit.

- I found the EDPA web page (Council of Europe), especially the dashboard, extremely helpful when compiling information about the protected area. However, it would be an added value to the web page if on the interactive map, borders of the EDPA sites would be visible and not just centroids. I had difficulties to check what are the actual borders of the SNP designated as EDPA area – is Macun area included or not. An updated map on EDPA dashboard would be the most transparent solution.

General conclusion

The Swiss National Park is of European importance and is well managed with a view to maintain the exceptional natural character of the area. Hundred-year tradition is reflected in the evolution of management of high standards and efficiency. They succeeded to give significance to wilderness area. In policy making, management decisions and every day's life there are strong relations between the SNP administration and local communities. This results in high acceptance of the protected area.

I therefore recommend to the Group of Specialists on the European Diploma and to the Standing Committee of the Bern Convention to agree on renewing the European Diploma of the Swiss National Park for the next 10 years.

In addition, the following **recommendations** should be attached to the renewal:

1. continue activities to enlarge the buffer zone of the SNP in the municipalities Zernez, S-chanf and Scuol; the extension of the buffer zone will in turn mitigate the effects of climate change on the reserve;
2. continue to raise awareness among local inhabitants, municipalities and visitors, of the presence of large carnivores, support sheep-breeders in applying preventive measures, and work in close co-operation with the Hunting and Fishing Department of the county of Graubünden;
3. while keeping traditional monitoring in good condition, further develop and financially secure research focusing on actual challenges (e. g. influence of Il Fuorn road traffic, visitors, neophytes, natural calamities, PCB's pollution, noise landscape) and issues to support management decisions;
4. continue the co-operation with the neighbouring Stelvio National Park at operational level and seek for possibilities to establish strategic cooperation at the level of both management authorities;
5. activate all players at federal, cantonal and local level to remediate to the polychlorinated biphenyls (PCBs) pollution from the Spöl river (total clean up);
6. include the Macun area to the European Diploma and consider including the remaining part of the Biosphere Reserve.
7. Give more visibility to and use more regularly the European Diploma logo on publications and appropriate infrastructures.