



Natura 2000 Seminars

Natura 2000 Biogeographical Process

Second Alpine Natura 2000 Seminar Padova - Italy, 21 – 23 June 2017

DRAFT Seminar Report

An initiative
of the





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Event: For more information on this seminar, see the Natura 2000 Communication Platform:
http://ec.europa.eu/environment/nature/natura2000/platform/events/second_alpine_natura_2000_seminar_en.htm

Relevant documents can be found here:
http://ec.europa.eu/environment/nature/natura2000/platform/knowledge_base/134_alpine_region_en.htm

Executive summary

The Second Alpine Natura 2000 Seminar took place in Padova, Italy, from 21-23 June 2017. It brought together 118 Natura 2000 practitioners and expert stakeholders from the Alpine region. Issues of common interest were discussed during a field excursion and during working group discussions, and a number of presentations on a variety of topics were given by the delegates. The presentations covered, for example, the Low Hanging Fruit (LHF) method, the development of a handbook for habitat monitoring under the Habitats Directive, better coherence in implementing the Water Framework Directive and the Birds & Habitats Directives, grassland management in the Alpine Biogeographical Region, Landcare Associations as a model to implement Natura 2000 and developing conservation management objectives and condition indicators for monitoring Natura 2000 sites.

The working group discussions were a core element of the Seminar, participants could choose to join one of the following four groups:

1. Setting conservation status objectives & priorities
2. Conservation measures and their effectiveness
3. Monitoring and evaluation
4. Addressing threats and pressures to Alpine habitats and species

Setting conservation status objectives & priorities

Three subject areas were discussed: 1) Interpretation of habitats, 2) Identification of appropriate indicators and targets, and 3) Restoration priorities. Regarding possible inconsistencies in the interpretation of Annex I habitats, a reworking of the Annex I habitat definitions was proposed as a solution. Nevertheless, the possibility to continue to work with the current approach, allowing Member States to use a nationally appropriate interpretation of the existing Annex I habitat definitions was recognized. It was also proposed to have a platform where MS can post their Annex I definitions to allow comparison with other MS and discussion plus possible revision. It was noted however, that the designation of the Natura 2000 sites was underpinned by the presence of Annex I habitat types according to the existing definitions and Annex II species and that any major revisions of the definitions (assuming that alternative definitions could be agreed) could have implications for the legal status of the current Natura 2000 series.

Most member states have a national overview of the conservation status of the Annex I habitats in their country, but seemed to lack appropriate indicators and targets at the site level. It was generally agreed that the national FRV's could partially inform this target-setting process, i.e. by looking at how much of the extent of Annex I habitat on each site contributes to the national resource. The second part of the condition indicator, the habitat quality definitions, are essentially site-specific and are less readily available. These definitions can be derived either from existing relevé data or from site visits designed specifically to capture the information.

Regarding the identification of restoration priorities, the LHF approach is considered beneficial from a political point of view, but there were some reservations with regards to the degree of application. It is important to ensure that by prioritizing one particular LHF habitat, other more pressing restoration needs are not discriminated. The general recommendation was that a balanced approach that incorporates the Low Hanging Fruits approach was probably best.

Conservation measures and their effectiveness

In this group, six issues related to conservation measures and their effectiveness were discussed.

1. **Funding:** a lack of funding to support the implementation of conservation measures; resources available not being used; misuse of available funds; lack of information on funding opportunities. Priority should be given to improve the access to available resources both for managing authorities and stakeholders. Amongst others, recommendations of the group were to further investigate and promote the use of market based solutions, encouraging the involvement of private sector and to provide incentives, rather than compensations.
2. **Regulations and governance:** the challenges produced by regulations in terms of restrictions, administrative burdens, lack of clarity and integration in policies and planning cannot be ignored. The organization of thematic workshops on regulation integration and the establishment of a database, collecting conservation measures from Natura 2000 management were proposed to overcome this problem.
3. **Cooperation:** There is a clear need to improve and strengthen cooperation, the group recommended ensuring more transparency and better communication at the local level, facilitating the access to information and the exchange of good practices, the creation of advisory service, information points and the organisation of thematic workshops.
4. **Communication:** the need to improve the quality of communication concerning Natura 2000 management was clearly highlighted. It was proposed to organise Natura 2000 exhibitions, trade shows and contests, outdoor activities for schools and to integrate Natura 2000 in school programs and University courses. Those would contribute to raise the awareness of civil society and motivate stakeholders. Local media should be actively involved and information about Natura 2000 should reach local communities with the organisation of local workshops, site visits and other events. All those should contribute to build a more coordinated communication network that would integrate the European and local level.
5. **Participatory approach:** the lack of stakeholders' involvement and integration in planning and management is clearly an obstacle towards more effective management. Participation of stakeholders is strongly dependent on good information and communication. It is crucial to have a good understanding of how nature conservation is perceived by local communities (challenges and opportunities). Information should be made more accessible at local level, with more transparent messages and clarity on conservation objectives and measures foreseen and in place.
6. **Knowledge and capacity:** the group analysed in particular the need to improve knowledge and capacity to deliver effective results, considering also the need to better value traditional knowledge.

Monitoring and evaluation

Unifying definitions and interpretation of habitats is a basic challenge as they are not always comparable in the different countries. There are insufficient funds available to monitor everything and the question of 'why' we should monitor is therefore very important. The key is how to determine a clear goal – you know what you want, but how often will you have this information – that is very complicated and complex. How to know which species to select, e.g. which flower for the designated butterfly, so experiments are needed here, but that is taking a long time. Choosing the right monitoring is also difficult, and Member States also have to deliver for article 17 whilst keeping in mind their national goals. Evaluating habitat structures rather than species is sometimes necessary, as species cannot always be compared. Integration of the information we already have is very important as well, as there is a lot of monitoring data already available and for the climate change challenge it is very important to integrate existing knowledge as well. Collaboration is very important for that. A lot of

monitoring is based on voluntary systems. There are some projects realized by citizens, for example based on pictures that people take with their phone. A problem with the monitoring data is that they are often protected.

The Low Hanging Fruit methodology was also discussed in this group, the quality of data can influence the determination of LHF. The devil is in the detail, for example it would be easier for river banks, but much more complicated for wetlands, it really depends on the type of the habitat.

New techniques in monitoring are: DNA (and genetic techniques); eDNA (in this method a sample from the environment, such as from the soil, water or air, is used to measure the abundance of a certain organism, as organisms leave DNA behind in the habitat that they use); remote sensing (even if already known in the 70ties); drones; cameras; radar and LIDAR (Light Detection and Ranging). The DNA method is very effective as you can sample a lot and it is very cost-effective as you can process after thousands of species in short time, the only disadvantage is that the method is expensive (although it is becoming cheaper), despite being cost-effective.

Remote sensing can be very a promising tool as well, especially in habitats with a long snow cover. The encouraging part is that you can generalize what was put in samples; and you can use the data in the best appropriate way. It is a very good tool at the landscape level, but on the site level you need more precise pictures will also be needed.

A possible topic for a future event in the field of monitoring and evaluation could be “New techniques for the monitoring”, including biostatistics and modelling as a huge evolution is expected here.

Addressing threats and pressures to Alpine habitats and species

Some specific threats and pressures were discussed into more depth:

1. **Land abandonment** for meadow habitats
 - A reason for this can be a less developed economy in meadow-based areas, with a related low income. Also demography in meadows can be a reason. The EC, Member States and regions should all help here, via subsidies, programs to promote these regions, media and the implementation of MAES into planning.
 - Natural succession (from meadows into forests for example) is a threat to the meadows too. This can be prevented by proper planning of the management and the proportion of forests and grassland. Investments into machines and measures in the field will help to maintain the meadows. Flexible management is required.
 - Large carnivores can be a reason for land abandonment. To overcome this problem, sharing and using of good practices (for example with shepherds or livestock guarding dogs) can be used.
2. **Inconsistencies in policies**
 - Policies on green energy (energy from wood and other biomass, water, etc.) can sometimes be conflicting or inconsistent. It is important that the real results of such energy sources are valued, for often they contribute too little to the increase of energy related to their costs and the ecological damage they are causing. Mitigation measures, in the sense that a minimum water flow is ensured for example, regulations via law, (consistent) policies, subsidy systems and sharing of good practices and coordination of approaches will help solving this problem. Joint implementation of directives like the Habitats and Birds directive together with the flood protection directive will help preventing inconsistencies.

- There can also be inconsistencies in policies related to risks for people and settlements, in the Alpine region risks can be caused by avalanches, floods and landslides. Also for this problem, joint implementation of legislation is a solution.

3. **Climate Change**

- Climate change is a major threat for the Alpine region. Habitats shift and their species composition is changing. It is important to have a plan ready for the habitats, and to measure the changes so mitigation or adaptation can take place.

Another remarkable part of the Seminar was the field visit, where all Seminar participants visited a forest and a grassland habitat. Issues and ideas for the management of these areas were discussed with the group. It boosted the discussions about Natura 2000 management. The Knowledge Market at the end of day 2 was another opportunity to discuss projects presented by the seminar participants. During the Knowledge Market, a discussion about approaches to large carnivores management took place as well.

The discussions at the Seminar led to a range of ideas for concrete cooperation and the development of initiatives to improve the management of Natura 2000 including a number of specific follow-up events (see chapter 3).

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List of abbreviations

- CAP: Common Agricultural Policy
EC: European Commission
FCS: Favourable conservation status
FRV: Favourable reference value
LHF: Low hanging fruit
MS: Member State
WFD: Water Framework Directive

1 Introduction

This document presents the main outcomes from the second Alpine Natura 2000 Seminar held in Padova, Italy, from 21 to 23 June 2017. The Seminar brought together a wide range of Natura 2000 practitioners and expert stakeholders from the Alpine region. As part of the Natura 2000 Biogeographical Process, the Seminar served the purpose of discussing issues of common concern and interest in relation to the conservation and management of Natura 2000 habitats selected for priority consideration and habitats identified as “low hanging fruit”. The Seminar was organised by ECNC in close cooperation with the European Commission and the generous hosts, the University of Padova in Italy. The seminar was attended by 118 delegates.

1.1 Context of the second Alpine Natura 2000 Seminar

The Natura 2000 Biogeographical Process was launched by the European Commission in 2011 to assist Member States in managing Natura 2000 as a coherent ecological network. The Process provides practical means to exchange the information, experience and knowledge that are required to identify and define common solutions and develop cooperative actions, which can be delivered to ensure progress towards the EU 2020 Biodiversity Strategy targets, in particular to Targets 1 & 2.

As the responsibility for the implementation of Natura 2000 and ensuring progress towards the EU’s Biodiversity Strategy targets lies with Member States, they are key actors in the Natura 2000 Biogeographical Process. The Process also provides an opportunity to mobilise expert networks and inputs from other key stakeholders, including NGOs. This is important in order to be in direct contact with experience of Natura 2000 practitioners, expert stakeholders and Member States’ representatives with specific responsibilities for implementation of Natura 2000. This underlines the strategic and operational importance of the Process, the integrated inputs required from diverse actors and the opportunities available to develop concrete collaborative actions for future implementation.

1.2 The Alpine Seminar Input Document

The [Alpine Seminar Input document](#) was produced to support the discussions during the Second Alpine Natura 2000 Seminar in Italy. It includes feedback on the four thematic clusters and five habitat groups, describing amongst others:

- Most pressing common issues and specific challenges
- Opportunities for cooperation
- Examples of good practices and recourses

2 Results of the second Alpine Natura 2000 Seminar

2.1 The opening session

The Seminar was officially opened by Tommaso Sitzia, representing the University of Padova, the host of the Seminar. Thereafter, other introductory statements and welcome words were given.

Laura Pettiti from the Italian Ministry of the Environment and Protection of Land and Sea started by expressing the seminars importance for Natura 2000 implementation. She pointed towards current milestones as the outcomes of the Fitness Check and the Report of the European Court of Auditors which offer realistic yet at times uncomfortable findings. Furthermore, it was urged to strive for greater integration within the Natura 2000 framework, regarding the various expertise's, EU policy and EU financial instruments involved and the ways in which these aims were developed in Italy.

In Italy, a cross-sectoral working group under the auspices of the Ministry representatives, the Regions and ISPRA identified future scientific research priorities and set up a national monitoring system for Natura 2000. However, more needs to be done to make Natura 2000 sites competitive in respect to areas outside the network for farmers sustainable involvement. Furthermore, common grounds and opportunities pertaining to the Rural Development Programmes and EU financial framework need to be sought. As Mrs Pettiti argued, we must learn to utilize the Prioritized Action Framework and LIFE programmes better and strive for greater involvement of land owners and other stakeholders. The LIFE project of FARENAIT was a good step in this direction yet additional steps are needed.

Integrated planning was deemed especially critical for successful Natura 2000 implementation, particularly in the Italian setting due to the great number of institutions involved. To avoid overlap of plans and regulations a single management tool for national protected areas and their Natura 2000 sites was developed. Equally important is the establishment of clear objectives, common concepts, measurable targets, realistic indicators. Project Gestire 2020 has represented a very interesting experience for process governance, territorial bodies involvement– first of all the regional protected areas – and the dissemination of information about Natura 2000 to the wider public. Overall, for nature conservation dialogue remains one of the most important tools, which makes this meeting so fruitful.

Micheal O'Briain from the European Commission stressed the importance of the Seminar. He thanked the University of Padova for hosting the seminar. It is the first time that a Natura 2000 Seminar is being hosted by an academic party. This is especially important also because practice needs science, *and science also needs the practice (added by Tommaso Sitzia from the University of Padova)*. The future of the implementation of the Natura 2000 network is bright, the birds and habitats directives are still fit for purpose, as was concluded from the fitness check. Implementation of the directives should be improved however, especially with regards to the socio-economic context. It should be practical and operational, therefore an Action Plan has been developed including 15 priority areas of action. Also, there is an extra 60 million euros available for the LIFE programme. Micheal O'Briain finally stressed that together we are stronger and wished that the seminar will create many new opportunities.

François Kremer from the European Commission presented the context of the seminar, zooming into the EU Biodiversity Strategy for 2020, the Natura 2000 Biogeographical Process and the EU Action Plan for nature, people and the economy (2017-2019). He also thanked everyone for being present. It is important to continue with cooperation and networking, also after the seminar and with people that are not present. Action 6 from the Action Plan is to "Bring together public authorities and stakeholders

from different Member States at the biogeographical region level to address common challenges, including on cross-border issues”. The Committee of the Regions of the EU is also a key partner in implementing the action plan. François Kremer finally stressed the importance of developing and adopting roadmaps for cooperative action under the Natura 2000 Biogeographical Process.

Neil McIntosh presented the schedule of the seminar and stated that the Process is meant to build a network of people working together on the management of the Natura 2000 network.

2.2 The site visits

Tommaso Sitzia provided an introduction to the site visits. The site visits, to a forest and a grassland site, will take place in Pian Cansiglio, part of the IT3230077 Natura 2000 site and located in the north-eastern Italian pre-Alps. He went way back into the history of the management of the area, from during the Venice Republic and the careless management of the forest after its fall in 1797. In 1871, the Italian government declared it ‘Inalienable State Property’. The area consists mainly of sediments of a marine origin. In the area there is karst formation (dissolving of rocks of a calcareous nature by rain water).

The forest site is a mature beech forest, that has a long history of management because the beeches were used for the production of oars during earlier times. Now, the beech forest is managed by a schedule of shelter wood silvicultural interventions. The deer density in the area is high, posing a threat to seedlings and saplings, in particular of silver fir, and the forest regeneration is threatened.

The grassland site is a mosaic of grasslands and pond habitat types. It is located close to a conifer forest and managed by a dairy farm. Mowing and grazing by cattle are used to manage in grasslands. The management is also linked to the requirements of the Nitrate Directive, which prohibits fertilization. Participants discussed the management plan and management measures of this grassland, because the contracts for the dairy farms need to be renewed in a few years, there is a good possibility to apply changes to the current management in the area.



Field visits in a grassland (left) and forest (right) habitat.

2.3 Day 2 of the second Alpine Natura 2000 Seminar

The second day of the seminar started with welcoming words from Raffaele Cavalli, the director of the department Land, Environment, Agriculture and Forestry (TESAF) at the University of Padova. Following these warm words, several presentations were given by the participants.

Mora Aronsson (European Topic Centre on Biological Diversity, Sweden) presented the Low Hanging Fruit approach (LHF). The LHF habitats are an addition to the priority habitats, where the habitats in the worst condition are prioritized. There is however also a need to demonstrate that targets can and

are being reached, this notably with a view to keep mobilizing funds. Therefore also improvements in conservation status and progress needs to be made. Therefore the LHF methodology was developed, to identify habitats that can more easily improve on their conservation status.

Micheal O’Briain also stressed that it is indeed really important to make progress towards reaching our biodiversity targets. Angelika Rubin (European Commission) explained that a questionnaire about success stories in (regions of) Member States is being developed by the Institute for European Environmental Policy.



Presentations at day 2 of the seminar, in the beautiful Villa Bolasco, Castelfranco Veneto.

Laura Causella from the Italian National Institute for Environmental Protection and Research, presented the Italian handbook for habitat monitoring under the Habitats Directive. It serves as clarification guide to people that need to report. The handbook is based on the outcomes of the first Alpine Seminar and focusses at the site level. Critical issues that are examined are the selection of appropriate methods for the parameters to be used in the report (Area & Structure and Function); the concept of "typical species" and standard methodological and sampling procedures for each habitat type (vegetation, substrate and water quality, et cetera). The handbook ensures that there is an understandable standardized method available for the people carrying out the assessments.

Werner Rehklau (Bavarian Environment Agency, Germany) presented a case-study about integrating the Water Framework Directive with the Birds & Habitats Directives in Bavaria. Goals of Natura 2000 are planned and integrated into local management plans. Therefore, working together with the forest administration is very important. The project was divided into a theoretical, scientific, strategic and practical approach. The ‘great take-off’ was a LIFE project. There will also be a workshop on the issue in Hungary in early November or late October, and in Austria about Alpine river habitat types, also in late autumn.

Matthias Dolek (Butterfly Conservation Europe, Germany) wants to bring invertebrate conservation more into the process, the topic is actually also a follow-up from the Graz seminar. The conservation feature needed for butterflies are neither a grassland, nor a forest but a combination of grass with some trees. Small structural units are important for butterflies, like the existence of stones. On the other hand small intensifications can have huge impacts on the butterflies, so it is important to avoid these. In his presentation Matthias Dolek provided several recommendations for conservation management with benefit for invertebrates.

Marie Kaerlein (Coordinator International Affairs Landcare Germany (DVL)) explained how Landcare Associations (LCAs) can serve as a model to implement Natura 2000. Landcare Associations are non-profit and independent units working on a district level. The board of such an organization is comprised of equal numbers of nature conservationists, farmers and local politicians. On request they provide advice to municipal administrations, farmers and other private landowners. A Landcare association works together with local stakeholders and organisations. The goals of LCAs are to preserve our cultural landscape and natural landscapes, to encourage landscape management with farmers and offer them a reliable additional income from Landcare measures, and to support rural development and regional products. LCAs act as advisers and mediators, plan and implement measures and open up financial resources and coordinate paperwork for that. One poor element of LCAs is that the contact point in the region needs to have that function for a long time to ensure a trusted, long lasting network. As a result from the 1st Alpine Seminar in Graz, a similar Landcare Association is set up in Romania.

Clive Hurford (Natural Resources Wales) presented the outcomes of the Eurosite Natura 2000 monitoring workshop in Litomerice, April 2017. Developed condition indicators ensure that conservation management can actually be monitored. Condition indicators are important because they allow us to develop efficient and reliable monitoring methods that will directly inform site management. Regarding the decision making process, there are several questions raised like whether or not a habitat can still realistically achieve FCS if it no longer supports the animal that should be present. The most popular topics for future workshops are (1) the roles of remote sensing and related new technologies in Natura 2000 monitoring, (2) dealing with habitat mosaics, (3) statistical approaches to trends detection, (4) monitoring methods, quality assurance/validation and (5) harmonising conservation targets across different scales i.e. Biogeographical zone, Member State, Regional and Natura 2000 sites.

All the presentations can be found on the [Natura 2000 Platform](#).

2.4 The thematic working groups

A large part of the second day of the seminar included the thematic working groups. In the following table, the group with their chairs and facilitators are presented:

Group	Chair	Seminar support by the contractor
Lead Seminar Coordinator: Neil McIntosh (ECNC)		
Setting conservation status objectives & priorities	Clive Hurford (Natural Resources Wales)	Monika Kotulak (CEEweb for Biodiversity)
Conservation measures and their effectiveness	Thomas Campagnaro (University of Padova)	Federico Minozzi (EUROPARC)
Monitoring and evaluation	Mora Aronsson (SLU/ETC-BD)	Emmanuelle Mikosz (ELO)
Addressing threats and pressures to Alpine habitats and species	Jana Durkošová (Slovak Ministry of the Environment)	Jinthe Roelofs (ECNC)

All thematic working groups started with an introduction of the group participants, chair and facilitator. In this way the group participants could outline their expertise and express their expectations and interest in the group they joined.

2.4.1 Setting conservation status objectives & priorities

The three subject areas discussed by this group were: 1) Interpretation of habitats, 2) Identification of appropriate indicators and targets, and 3) Restoration priorities. *Existing knowledge, projects and events from this group are included in Annex II*

Session 1 - What are the management challenges associated with the subject areas

This session opened with a presentation on '[Setting site-specific conservation objectives for Natura 2000 in Ireland](#)' by Rebecca Jeffrey of the National Parks and Wildlife Service, Ireland. The presentation gave an overview of the Natura 2000 network in Ireland and the history of preparing conservation objectives for habitats (using the Active raised bog habitat as an example). A judgement by the European Court of Justice to sue Ireland for failing an assessment of the impact on Natura 2000 sites gave rise to the current approach. The conservation objectives for each site focus on the ecological requirements of the respective Annex I habitats and Annex II species present, and they serve as a tool for Appropriate Assessment. The presentation set the scene for some of the discussions that followed. The participants divided into four sub-groups to discuss challenges that they face, specifically relating to the main topics of the working group. The main challenges identified by the sub-groups were:

- The interpretation of Annex I habitat definitions, and a perceived need to define condition indicators for monitoring that could ensure consistency at both the national and cross-border levels;
- The problems associated with potentially conflicting conservation objectives for habitats and species at the site level;
- How to prioritize objectives on the site level;
- How to identify/select indicators for monitoring;
- How to choose appropriate management measures;
- How to manage dynamic habitats;
- How to set conservation objectives for habitats in transition;

- How to identify the priorities for restoration of habitats and species.

Session 2 - Identifying solutions and the scope for joint working

During this session, the same sub-groups reconvened to discuss possible solutions to the challenges raised in Session 1 and to identify opportunities for joint-working. A brief summary follows on the key issues discussed for each of the three discussed subject areas.

Interpretation of habitats

Several delegates expressed concern over inconsistent interpretation of the Annex I habitats and the implications for reporting. The group presented a number of possible solutions, these included:

- A complete reworking of the Annex I habitat definitions to provide a clear and unambiguous definition of each Annex I habitat, developed and approved by a panel of specialists drawn from a range of Member States;
- Continuing with the current approach, which assumes a geographic continuum of Annex I habitat types across Europe, where the cover of the dominant species and range of associated/typical species will vary according to location. This approach allows each Member States to use a nationally appropriate interpretation of the existing Annex I habitat definitions;
- The provision of a platform where the Member States can post their Annex I habitat definitions to allow comparison with those from other Member states: this could provide a forum for discussion and possible revision.

It was noted that the designation of the Natura 2000 sites was underpinned by the presence of Annex I habitat types according to the existing definitions of these habitat types and of Annex II species and that any major revisions (assuming that alternative definitions could be agreed) could have implications for the legal status of the current Natura 2000 series.

Identification of appropriate indicators and targets

Most, if not all, of the Member States represented in the group had a national overview of the conservation status of the Annex I habitats in their country. However, it seemed that no country had made the transition to developing targets and identifying indicators at the site level – where restoration measures are applied.

It was generally agreed that the national Favourable Reference Values (FRVs) for the habitat could partially inform the target-setting process, i.e. by looking at how the extent of Annex I habitat on each site contributes to the national resource. The second part of the condition indicator, the habitat quality definitions, are essentially site-specific and are less readily available. These definitions can be derived either from existing relevé data or from site visits designed specifically to capture the information.

The Chair presented one approach for deriving appropriate habitat quality indicators from existing relevé data. To do this, we need to have data collected from different habitat stages on the site, i.e. from different stages of habitat development or from habitat patches perceived to be at different levels of impact by what we understand to be the key pressures and threats. With this information, by aligning the data sets from different habitat states side by side, we can start to identify site-specific assemblages of co-occurring indicator species (see Table 1).

Species name	Quadrat no							
	1	2	3	4	5	6	7	8
<i>Saxifraga tridactylites</i>	+	+		+				
<i>Galium verum</i>	+	+	+	+	+	+	+	+
<i>Sedum acre</i>	+	+	+	+	+	+	+	+
<i>Thymus polytrichus</i>	+		+	+	+	+	+	+
<i>Cerastium sp.</i>	+	+	+	+	+		+	+
<i>Euphorbia portlandica</i>	+		+	+	+	+		
<i>Viola kitaibeliana</i>	+	+	+	+	+	+		
<i>Aphanes arvensis</i>	+		+	+				
<i>Plantago coronopus</i>	+							
<i>Leontodon taraxacoides</i>	+	+		+				
<i>Leontodon autumnalis</i>	+					+		
<i>Erodium cicutarium</i>	+	+	+	+				
<i>Verónica arvensis</i>	+						+	
<i>Erophila verna</i>	+	+	+	+	+			
<i>Mibora mimima</i>		+		+				
<i>Geranium molle</i>		+		+	+		+	+
<i>Sagina procumbens</i>		+						
<i>Phleum arenarium</i>		+						
<i>Luzula campestris</i>			+		+	+	+	
<i>Trifolium dubium</i>			+			+		
<i>Vicia sativa</i>			+			+		
<i>Hypochaeris radicata</i>				+				
<i>Ranunculus bulbosus</i>					+	+		+
<i>Lotus corniculatus</i>					+	+	+	
<i>Centaureum erythraea</i>							+	+
<i>Vicia lathyroides</i>								+
Species total	15	15	18	18	18	14	15	16
Bare sand	55	35	0	0	1	0	0	0
Grass cover	3	35	30	35	90	90	70	80
Moss cover	30	30	20	65	5	3	5	15
Vegetation height	2.6	2.5	4.0	3.5	4	4	5.5	6

Table 1. This shows the data from a series of relevés collected at a dune system in Jersey. Relevés 1-4 were collected from open, successional-young stands of dune grassland, and relevés 5-8 collected from increasingly closed stands of dune grassland. The species that occur primarily in relevés 1-4 (highlighted in green) are potential contributors to a positive indicator assemblage. The number of green highlighted species co-occurring in the columns for relevés 1-4 provides the basis for a positive indicator assemblage for successional-young dune grassland. However, the inclusion of these species should always be further informed by our understanding of the pressures and threats to the habitat on the site and by our understanding of how the selected species would respond to increased pressures.

Identifying restoration priorities

All of the delegates in the Group could see some potential benefits to applying the ‘Low Hanging Fruits’ approach for prioritising habitats for restoration, though there were some reservations with regards

to the degree of application. The political benefits of being able to provide positive feedback and results are clear, but it is important to ensure that by prioritising one particular habitat type we do not discriminate against possibly more pressing restoration needs of other habitat types. For example, there was a view that we also need to secure a) the management of sites that are currently hosting examples of habitats currently in a 'favourable' state' and b) the habitats that have an unfavourable conservation status and that are more difficult to restore. The fact that such habitats are difficult to restore across the resource makes it a priority to secure the best examples of them, and particularly those examples that still support the 'typical species' that should be associated with them. The general recommendation was a balanced approach that incorporates the Low Hanging Fruits approach.

There was also recognition that, even if we solely apply the Low Hanging Fruits approach, we would not have the resources available to restore all examples of the habitat, therefore we would still need some form of prioritisation. Against this background, the Chair presented Table 2 as an example of a scoring system that could be adapted for identifying which sites support the priority examples of a habitat for both maintenance and restoration management.

Habitat conservation value assessment					
Site: Kenfig NNR					
Habitat: Humid dune slacks					
Habitat designation	Value	Site Score	Dependent species designation	Value	Site Score
International priority habitat and special UK responsibility	10	0	International priority species and special UK responsibility	10	0
International priority habitat	9	0	International priority species	9	0
Annex I habitat and special UK responsibility	8	0	Annex II species and special UK responsibility	8	16
Annex I habitat	6	6	Annex II species	6	0
SSSI habitat	3	0	SSSI species	3	0
Area of habitat			Population size		
> 50% of national resource	10	0	> 50% of national resource	10	10
26-50% of national resource	8	8	26-50% of national resource	8	0
11-25% of national resource	6	0	11-25% of national resource	6	0
6-10% of national resource	4	0	6-10% of national resource	4	0
1-5% of national resource	3	0	1-5% of national resource	3	0
<1% of national resource	1	0	<1% of national resource	1	1
			Any of above - but no threat	0	0
Habitat total		14	Dependent species total		27
Overall score = 41					

Table 2. This table shows a scoring system that could be adapted/adopted for identifying the sites that hold the priority habitats for maintenance or restoration management in each country.

Table 2 takes into account:

- The level of designation associated with the habitat type;
- The degree to which the area of habitat on each site contributes to the national resource;
- How many dependent Annex II species are associated with the habitat on each site;
- What percentage of the national resource is present for each of the Annex II species;
- How many dependent ‘nationally important’ species are associated with the habitat on each site, and
- What percentage of the national resource is present for each nationally important species.

Session 4 - Recommended future actions

The final session of the day focussed on the actions that the Group would like to recommend going forward. These actions are listed below:

- To make better use of the Natura 2000 Biogeographical Process by making it more attractive to participants, e.g. by translating national documents on the subject beforehand and discuss it, compare and try to unify during the meeting (e.g. definition of habitats, management guidelines).

- To provide an online platform for the collation of habitat definitions from all Member States and where experts would be able to compare and contrast them. Task to be undertaken by an external contractor?
- To establish a working group of experts to discuss and resolve issues associated with habitat interpretation;
- To establish a working group to provide guidance on the development of conservation objectives and condition indicators, ideally using the Natura 2000 Communication Platform to collate and share examples of best practice from across the Member States;
- To provide an online platform for collating and sharing case studies that illustrate the process from beginning to end on Natura 2000 sites, i.e. the process of developing Conservation Objectives and site-specific Condition Indicators, the development and the application of the monitoring project and the associated management response;
- To prepare an application for a project on defining Conservation Objectives and Condition indicators
- To develop a process for establishing condition indicators that could be adopted by all Member States, perhaps incorporating the guidance currently being developed as an action from the Eurosite Natura 2000 monitoring workshop.
- To organize a workshop for monitoring species and habitats (potentially General Directorate of National Conservation, Poland)
- To prepare a proposal for INTERREG project between several MSs on a few sites for implementing condition indicators, covering the full circle of implementation, from planning, performance, evaluation and adaptation.
- To organize follow-up events e.g. Bundesamt für Naturschutz (BfN) will organize a workshop for discussing forest habitat types.

2.4.2 Conservation measures and their effectiveness

Workshop structure:

37 Participants, representing public authorities, NGOs, EC, individual experts, landowners, farmers and managers attended the thematic working group.

After an introduction, Andy Bleasdale – National Parks and Wildlife Service of Ireland [presented the case of the Burren](#), in Ireland, where, using a result based approach and resources of the RDP, an innovative cooperation process with farmers was established, resulting in a more integrated and effective management of Natura 2000 sites.

Taking inspiration from the presentation the group identified main issues that are currently limiting the effectiveness of Natura 2000 conservation measures in the alpine region. Six thematic sub-groups have then been working to identify possible solutions to the various issues, taking into account the background documents provided. Their conclusions and recommendations were shared in a final session.

The group identified the following main issues:

- 1. Funding:** lack of funding to support the implementation of conservation measures; resources available not being used; misuse of available funds; lack of information on funding opportunities. Priority should be given to improve the access to available resources both for managing authorities and stakeholders.

In particular it was recommended to:

- Further investigate and promote the use of market based solutions, encouraging the involvement of private sector;
 - Provide incentives, rather than compensations, based on results (as successfully implemented in the model of the Burren - Ireland);
 - Optimize and integrate current funding: ensure that national/regional authorities have in place and update their Prioritised Action Framework (PAF);
 - Use creative solutions to co-finance projects: such as crowd-funding to raise awareness and build ownership of local communities. A pilot model is the integration of crowd funding and RDP (cooperation measure) funding to set the basis for a LIFE project proposal for the Brenta River (Veneto, Italy).
- 2. Regulations and governance:** the challenges produced by the regulations in terms of restrictions and the administrative burden cannot be ignored. Those, together with the lack of clarity and lack of integration of policies and planning, are inevitably threatening the effective management of sites. The improvement of the governance system should be considered as well. In this perspective the role, expertise and governance models of protected areas, established at national and regional level, should be valued and further considered for Natura 2000 integrated planning and management.

The following initiatives were proposed:

- The organisation of a thematic workshop on the integration of the Water Framework Directive and the Habitats Directive.
 - Progress in the integration of legislation and planning to improve the effectiveness of conservation measures (as for example the integration of Natura 2000 plan features within Forest plans in the Veneto Region);
 - Establish a database, collecting conservation measures from Natura 2000 management plans.
- 3. Cooperation:** There is a clear need to improve and strengthen cooperation, in particular at local level, among managers, stakeholders and decision makers. This is considered crucial also to build mutual trust.

The group recommended ensuring more transparency at local level, facilitating the access to information and improving the communication at local level. If responsibilities have to be shared with stakeholders, the information on opportunities and restrictions, on site priorities and conservation objectives should be made more accessible. The creation of opportunities for capacity building and platforms for dialogue would be a good method to facilitate progresses: promoting the exchange of

good practices, the creation of advisory service, information points and the organisation of thematic workshops.

In particular it was proposed to:

- Organise thematic workshops to present and share the experience of the Landcare association;
- Establish local forum involving managers, decision makers and stakeholders;
- Identify at local level Natura 2000 ambassadors.

- 4. Communication:** the need to improve the quality of communication concerning Natura 2000 management was clearly highlighted. It is considered that higher quality and transparent communication, together with more focused, accessible and targeted messages, would determine a positive cascade effect on management, facilitating the involvement and participation of different stakeholders. We need to work towards a more positive perception of Natura 2000.

It is proposed to organise Natura 2000 exhibitions, trade shows and contests, but also outdoor activities for schools and to integrate Natura 2000 in school programs and University courses. Those would contribute to raise the awareness of civil society and motivate stakeholders. Local media should be actively involved and information about Natura 2000 should reach local communities with the organisation of local workshops, site visits and other events. All those should contribute to build a more coordinated communication network that would integrate the European and local level.

In particular it was proposed to:

- Further disseminate the [EUROPARC training manual and toolkit](#) for effective communication on Natura 2000.
- Encourage the use of local media to involve stakeholders;
- Create local information platforms and helpdesks to provide support and guidelines to stakeholders.

- 5. Participatory approach:** the lack of stakeholders' involvement and integration in planning and management is clearly an obstacle towards more effective management. In order to ensure the development of more participatory approaches at local level, the following ideas were proposed:

- Participation of stakeholders is strongly dependent on good information and communication. It is crucial to have a good understanding of how nature conservation is perceived by local communities (challenges and opportunities). Information should be made more accessible at local level, with more transparent messages and clarity on conservation objectives and measures foreseen and in place.
- In order to reward stakeholders and managers for their contribution to the implementation of conservation measures, it is proposed to organise Natura 2000 awards also at local and national level.
- With the aim to strengthen cooperation and involve stakeholders in the decision making process, it is proposed to create local committees or forums, involving local authorities, managers, scientists and stakeholders. Those forums should maintain their independence.

- To capitalise best practices and projects from other areas across Europe.
- Promote the implementation of sustainable tourism strategies and plans to strengthen the cooperation at local level between public and private sector.

6. Knowledge and capacity: this group analysed in particular the need to improve knowledge and capacity to deliver effective results, considering also the need to better value traditional knowledge. The following were considered:

- There are numerous external factors that have an impact on management, which are out of managers' control. For this it is important to set realistic conservation objectives, with good margins of flexibility, and to encourage cross border approaches, between sites, regions and countries. The experiences of transboundary protected areas should be valued and considered as a possible model.
- There is the need to improve knowledge and the experience of managers and stakeholders: create opportunities of learning exchange for local managers and make data and information more accessible (database, websites, handbooks, etc.). Better consideration should be given to traditional knowledge, valuing the opportunity of the European Year of Cultural Heritage – 2018.
- Lack of confidence on available data concerning habitats status, species distribution and population size. It is considered crucial to regularly update and review data, to simplify the amendment process of Standard Data Forms SDFs and ensure the involvement of local experts for their review.
- The lack of expertise of managers and the limited human resources available to work on the field are an important obstacle to effective management. It is recommended to promote dedicated University modules, such as the new one on Natura 2000 management by the University of Padova (<http://en.didattica.unipd.it/offerta/2017/AV/AV2091/2017/002LE/1159973>).
- Managing authorities and their administrative/governance structures are not always adequate for the tasks assigned. Proportionate funding and training opportunities should be provided.
- Guidance for managers is not always sufficient or adequate: the review of some guidance from the EC – as indicated in the Nature Action Plan - is surely welcomed. Guidance should become living documents, easy to integrate, adapt and translate.

2.4.3 Monitoring and evaluation

As starting point for the discussion, the excursion of day one of the seminar is used. Basic problems to solve are the definitions and interpretations of habitats, they are different between the countries. These problems occur in every habitat group. Ideally, many aspects should be monitored but there are insufficient funds available for that. The real and most important question therefore is WHY we should monitor particular aspects. With monitoring, it is important to keep in mind the climate change effects. An example of a LIFE project dedicated to butterflies is given, where the starting point was to assess how many species there are, and if they are increasing or decreasing. The main questions always remains: how long to monitor and how to measure. The key is to determine a clear goal – you have to know what you want to achieve. But how often will you have this information – how to know which

species to select, for example which flower for the designate butterfly. Experiments are needed here, but they require a long time frame.

It is important to put all regional standards together and to collect all the existent data stored at different places and collected by various groups. There is a big dependence on the (changing) funding. Evaluation of a habitat structure is the solution as you can't compare specific species. For example in the WFD, an approximation is used if you can't compare different ecosystems. Here the WFD is very clear - you have to evaluate the structure. Specific species are used as indicators on structure functioning; using of course different species in different areas. The list of typical species is very long – for different structures and functions; so it is a good idea to choose 3-5 species. Even between habitats there are differences, so you have to be sure that you are doing the right thing for biodiversity.

For the climate change issue, science is important. Differences in temperatures can be compared, so future situations can be predicted. There is also the possibility to use genetic methods. Already existent information should be integrated. The question remains how to do it in an easier way. It is not easy to share and spread studies, but it should be done more.

The Nordic part of the Alpine region is a very tricky one - Sweden is having the biggest part. Very few people are living there, mainly indigenous people called Sami. They are the main users in Sweden and Finland but are having different rights, so there are a lot of specific conflicts concerning the land use. It is also a very tricky region with a lot of different aspects, different land uses and landscape management between North and South or East and West. For example, in the case of reindeer as the important grazer in the North and cattle and sheep in the South.

The LHF methodology

The Chair starts the second part by explaining the LHF methodology. The main reason of the LHF methodology is to achieve quick improvements of conservation status for a number of habitat types with relatively less efforts than for more difficult habitats and to be able to show positive achievements, this mainly for political reasons. In the absence of visible positive results it may become more difficult to secure sufficient funds for the necessary conservation and restoration measures. The discussion point was raised that, taking as base the Art. 17 reporting requirements, the quality of the data can also influence the determination of LHF habitats. A higher score can also simply be obtained by having a higher proportion of a particular habitat type inside Natura 2000.

A question about the usefulness of using the presented index was raised. If the assessment is done on the EU coverage it means the result is for both outside and inside Natura 2000, so why using this index. It would be easier to do it only inside Natura 2000 zones, also for LHF. The Chair explains steps 3 - 5 from the PPT, to better understand what could be really LHF according to the Habitats Directive. He indicates that as there are a lot of differences between MS reporting the experts thought it would be useful to have 20 habitats, at the end 30 habitats as LHF (FV). We all have to prove that the Directive is working. Those tables are not a judgment, and small countries also have to act.

After a question about the ranking was raised, it was explained that the ranking was done 'manually' based on Topic centre experts' judgments. To improve the position in the ranking the country also has

to work with its neighbours. More countries participating will change the final picture, and at the end of the day each MS will have to participate.

Monitoring & reporting – suggested follow-up:

- National catalogues on ongoing projects and monitoring schemes in the region and country. Such information could be gathered as an awareness raising project – to collect information. This information should be accessible online and in multiple languages. In some countries, this already happens and the data is accessible, other countries just started collecting the data.
- An Interreg project could be of use – for gathering the data, individual schemes and funds.

Collaboration with private stakeholders (landowners, farmers and other private stakeholders)

In many countries, collaboration with private stakeholders takes place, for example for comparing methods and testing each other's protocols, using shared grids for monitoring and using the same ways to collect data. In some countries monitoring is done via public procurement with collaboration for special cases like the monitoring of bat caves. In addition a lot of volunteers are helping and Universities are very engaged. Concerning fishes – there is collaboration with people having fishing rights.

There are also projects realized by citizens; for example for beetle species in Slovenia there is an application based on pictures taken by phones. Delegates confirm such applications for butterflies and birds being existent in Bavaria; for birds in Catalonia and Pays Basque and for invasive species in fresh water in Sweden. It is not always complicated to manage this data, because dedicated experts can be appointed to ventilate such data. However, especially when there are many different species occurring, validating this data is a challenge. It is also important to keep in mind that it is not only about how to gather data, but also about involving people even if they are not delivering high information, as the goal here is capacity building.

New techniques in monitoring

The most well-known new techniques in monitoring are: DNA (and genetic techniques); eDNA (in this method a sample from the environment, such as from the soil, water or air, is used to measure the abundance of a certain organism, as organisms leave DNA behind in the habitat that they use); remote sensing (even if already known in the 70ties); drones; cameras; radar and LIDAR (Light Detection and Ranging). Drones can be used to monitor invasive species. LIDAR is used in forestry, in addition to radars it will be more important in the future. DNA is used in the Arctic for the monitoring of fungi, very rarely you have the fruit body, and therefore this method is very promising, also for soil invertebrates. In the non-Arctic Alpine region DNA is used as well, it gives the possibility to evaluate the complete fauna in the area and not species by species. Another advantage is that in a single analyses you can really learn a lot. Of course a complete DNA analyses for animals is not cheap; genomics is really promising here. The method is becoming cheaper as well.

With drones there are sometimes legal issues regarding their use, they can be forbidden in national parks and when using them outside the area you have to be sure that there are not disturbing the animals.

Remote sensing can be very a promising tool, especially in areas with long time snow cover habitat.

It might be useful to organize an event about “new techniques in monitoring”, including biostatistics and modelling as a huge evolution is expected here.

2.4.4 Addressing threats and pressures to Alpine habitats and species

The ‘addressing threats and pressures to Alpine habitats and species’ group consisted of 14 experts from the Alpine region, together with a European Commission representative. As introductory ‘food for thought’ the Chair, Jana Durkošová, presented the new EU Action Plan.

The group focussed on a number of specific threats and pressures:

1. Land abandonment and meadow habitats

- A reason for this can be a less developed rural economy and a related low income for the local population. Also demography can be a reason. Young people have a different lifestyle than their parents and grandparents, and move out of the area. It is therefore important that young people are motivated to stay, for example by offering education and/or economic activities. The countryside should also become more attractive and more highly valued (MAES, Mapping and Assessment of Ecosystems and their Services, can help for this). Sharing experience on a national and regional level will help. There are examples of people going back to the traditional ways of living, for example this happens in the Arctic Alpine region with the Sami people. The general trend is however that more land is abandoned.

The EC, Member States and regions should all help here, via subsidies, programs to promote these regions, media and the implementation of MAES into planning. This should be done as soon as possible, but especially when regulations are changed or new regulations adopted. It is important that the focus will be on long-term solutions.

- Natural succession (from meadows into forests for example) is a threat to the meadows too. This can be prevented by proper planning of the management and the proportion of forests and grassland. Investments into machines and measures in the field will help to maintain the meadows. Flexible management is required. Authorities in charge of the planning and land owners/users or their association (with ecological expertise) should take care of this. It can be necessary to select representative sites to focus on.
- Large carnivores can be a reason for land abandonment. Especially in the Alpine region, it is not always easy to prevent damage to livestock, as it is not always possible to place a wolf-proof fence for example. Using shepherds can be too expensive for some farmers. To overcome this problem, sharing and using of good practices (for example with shepherds or livestock guarding dogs) can be used. Subsidies or compensation for damage help to minimize the effects of a conflict. Education on pros and cons of different methods and about large carnivores management is important as well. Species action plans for large carnivores will also help reducing potential conflicts. There are different groups of stakeholders that can help for this, the EC and Member states, regional and local authorities like nature and hunting bodies should all take responsibility. Information should be shared via the EU large carnivore platform. There

are examples of success stories related to large carnivore management, like the Carpathian Convention. Media can have a positive influence on the large carnivore discussion as well, if they picture it in a positive way. It is important to take large carnivores into account when revising or adopting measures under the CAP, national strategies and species plans.

2. Inconsistencies in policies

- Policies on green energy (energy from wood and other biomass, water, etc.) can sometimes be conflicting or inconsistent with biodiversity conservation. It is important that the real results of such energy sources are valued, for often they contribute too little to the increase of energy related to their economic and ecological costs. Mitigation measures, in the sense that a minimum water flow is ensured for example, regulations via law, (consistent) policies, subsidy systems and sharing of good practices and coordination of approaches will help solving this problem. More coherence in implementing directives like the Habitats and Birds directive and the flood protection directive will help preventing inconsistencies.

(Cross-border) conventions can be successful in solving problems related to policy inconsistencies. The Alpine Convention was previously adopted and is now working with national and regional parks to create a network. Another example is the Carpathian convention.

- There can also be inconsistencies in policies related to risks for people and settlements, in the Alpine region risks can be caused by avalanches, floods and landslides. Also for this problem, joint implementation of legislation is a solution. For example, dwarf pine can be used to create more stable ecosystems. Proper land use planning and creating risk maps is very important for this issue. Sharing of experience will help each other forward as well. It is mostly national, regional and local (environmental) authorities who should anticipate on inconsistencies related to risk for people. Fora can be used to share risk maps for example. It is important that the (legal) responsibilities are clarified in this case.

3. Climate Change

- In the Alpine region climate change represents a major threat for many habitats and species. Habitats shift and their species composition is changing. It is important to have a plan ready for the habitats, and to measure the changes so that mitigation or adaptation can take place. Therefore, assistance should be proactive and involve scientists. Migration corridors and stable habitats should be supported. Some habitats can still be managed in a way that they stay the same, while for others, shifting to another habitat might be foreseen.

3 Alpine Roadmap

A significant range of subjects for future development and concrete collaboration were identified during the course of the working groups' discussions:

What?	When?	Where?
Workshop about better integrating the implementation of the Water Framework Directive and the Birds & Habitats Directives	October/November 2017	Hungary
Workshop about Alpine river habitat types	Late Autumn 2017	Austria
Eurosite Natura 2000 monitoring workshop, hosted by Estación Biológica de Doñana, about 'intergrating remote sensing and other new technologies into Natura 2000 monitoring'.	April 2019	Sevilla
Establish a working group of experts to discuss and resolve issues associated with habitat interpretation		
To provide an online platform for the collation of habitat definitions from all Member States and where experts would be able to compare and contrast them. Task to be undertaken by an external contractor?		
Establish a working group to provide guidance on the development of conservation objectives and condition indicators, ideally using the Natura 2000 Communication Platform to collate and share examples of best practice from across the Member States		
To organize a workshop on monitoring species and habitats (potentially General Directorate of National Conservation, Poland)		
To prepare a proposal for INTERREG project between several MSs on a few sites for implementing condition indicators, covering the full circle of implementation, from planning, performance, evaluation and adaptation.		
Bundesamt für Naturschutz (BfN) will organize a workshop for discussing the management of secondary forest habitat types.	19-21 September 2017	Bad Bergzabern, Germany
Establish a database, collecting conservation measures from Natura 2000 management plans.		
Organise thematic workshops to present and share the experience of the Landcare association		
Establish local forums involving managers, decision makers and stakeholders		
Further disseminate the EUROPARC training manual and toolkit for effective communication on Natura 2000.		
Encourage the use of local media to involve stakeholders		
Create local information platforms and helpdesks to provide support and guidelines to stakeholders.		
An Interreg project about monitoring and reporting – for gathering all the data that individual organisations and countries have, information on available funds could be included in this project as well		

To organize an event about “new techniques in monitoring”, including biostatistics and modelling as a huge evolution is expected here.		
Fight land abandonment via subsidies, programs to promote the regions, media and the implementation of MAES into planning.		
Share best-practice information regarding large carnivores on the EU large carnivore forum		
Establish cross-border conventions to solve problems related to inconsistencies in policies		

4. Closing plenary session

Blanca Saez-Lacave and João Pedro Silva presented the latest developments under the LIFE programme. The LIFE programme promotes collaboration between several stakeholders for managing Natura 2000 sites, habitats and species, it is also a huge repository of practical habitat management and restoration actions. The calls for the Climate area and for the Nature and Biodiversity area are open until 7 September 2017 and 14 September 2017 respectively. It is wise to not only think about the nature and biodiversity area when submitting an application, because there competition for this area is huge, for example governance and climate can sometimes be a possibility as well. It is also really important to read the application package into detail before submitting an application.

The outcomes of the four thematic working groups on day 2 were presented and shortly discussed as well.



Final words of thanks at day 3 of the seminar, at the Department of Geography in Padova.

These presentations were followed by an expression of thanks by the Italian host. Micheal O’Brian (European Commission) thanked the host and stressed that the Process is also designed to bring people into contact with each other and encourage them to work together. There is this funding programme of LIFE so it should be used. We should actually have a sense of pride for the Natura 2000 Network and its implementation at the local level. It happens because of people.

The organisers thank all delegates for their active participation and valuable contributions during this second Alpine Natura 2000 Seminar. The results of the working group discussions presented during the closing session provide the basis for developing new and promising follow-up actions. The European Commission and the contractor supporting the Natura 2000 Biogeographical Process play a coordinating and supporting role for these follow-up actions, but the initiative clearly resides with the site, local, regional and Member State level actors. The Commission has initiated and supported the Natura 2000 Biogeographical Process to help the Member States in their duty to implement the Nature Directives. In addition, there are various types of funds available to carry out projects and activities in relation to the implementation of the Nature Directives, in particular, under the LIFE Nature programme and the structural funds. The delegates are encouraged to remain in contact, to include their colleagues and to take forward the many interesting ideas that had been discussed during the Seminar.

Annex I: Habitats selected in the Alpine Biogeographical Process

<i>Freshwater habitat group</i>			
Habitats Directive code	Habitat name	Low Hanging Fruit	Priority consideration habitat
3140	Hard oligo-mesotrophic waters with benthic vegetation of <i>Chara</i> spp.		Yes
3150	Natural eutrophic lakes Magnopotamion Hydrocharition	Yes	Yes
3220	Alpine rivers and the herbaceous vegetation along their banks		Yes
3230	Alpine rivers and their ligneous vegetation with <i>Myricaria germanica</i>		Yes
3240	Alpine rivers and their ligneous vegetation with <i>Salix elaeagnos</i>		Yes
3260	Water courses of plain to montane levels with the <i>Ranunculion fluitantis</i> and <i>Callitriche-Batrachion</i> vegetation		Yes
3180	Turloughs	Yes	
<i>Bogs, mires and fens habitat group</i>			
Habitats Directive code	Habitat name	Low Hanging Fruit	Priority consideration habitat
7110	Active raised bogs		Yes
7140	Transition mires and quaking bogs		Yes
7230	Alkaline fens		Yes
7220	Petrifying springs with tufa formation (<i>Cratoneurion</i>)	Yes	
<i>Forest habitat group</i>			
Habitats Directive code	Habitat name	Low Hanging Fruit	Priority consideration habitat
91D0	Bog woodland		Yes
91E0	Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (<i>Alno-Padion</i> , <i>Alnion incanae</i> , <i>Salicion albae</i>)		Yes
9130	<i>Asperulo-Fagetum</i> beech forests		Yes

9180	<i>Tilio-Acerion</i> forests of slopes, screes and ravines		Yes
9260	<i>Castanea sativa</i> woods	Yes	Yes
9410	Acidophilous <i>Picea</i> forests	Yes	Yes
91H0	Pannonian woods with <i>Quercus pubescens</i>	Yes	
91L0	Illyrian oak-hornbeam forests (<i>Erythronio-Carpinion</i>)	Yes	
91M0	Pannonian-Balkan oak forests	Yes	
91WO	Moesian beech forests	Yes	
91Z0	Moesian Silver lime woods	Yes	
9050	Fennoscandian herb-rich forests with <i>Picea abies</i>	Yes	
9110	<i>Luzulo-Fagetum</i> beech forests	Yes	
9170	<i>Galio-Carpinetum</i> oak hornbeam forests	Yes	
9270	Hellenic beech forests with <i>Abies borisii-regis</i>	Yes	
9510	Southern Apennine <i>Abies alba</i>	Yes	
9560	Endemic forests with <i>Juniperus</i> spp.	Yes	
Grassland habitat group			
Habitats Directive code	Habitat name	Low Hanging Fruit	Priority consideration habitat
6210	Semi-natural dry grasslands and scrubland facies on calcareous substrates (<i>Festuco-Brometalia</i>) (* important orchid sites)		Yes
6230	* Species-rich <i>Nardus</i> grasslands, on siliceous substrates in mountain areas (and submountain areas, in Continental Europe)		Yes
6410	<i>Molinia</i> meadows on calcareous, peaty or clayey-silt-laden soils (<i>Molinion caeruleae</i>)		Yes

6430	Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels		Yes
6510	Lowland hay meadows (<i>Alopecurus pratensis</i> , <i>Sanguisorba officinalis</i>)		Yes
6520	Mountain hay meadows		Yes
62D0	Oro-Moesian acidipjilous grasslands	Yes	
Heath and scrub habitat group			
Habitats Directive code	Habitat name	Low Hanging Fruit	Priority consideration habitat
40A0	Subcontinental peri-Pannonic scrub	Yes	
4070	Bushes with <i>Pinus mugo</i> and <i>Rhododendron</i>	Yes	
4080	Sub-Arctic <i>Salix</i> spp. Scrub	Yes	

Annex II Existing knowledge, projects, events

This provides a list of references and links to relevant publications and projects associated with the subject areas discussed by thematic working group “Setting conservation status objectives & priorities”.

Subject area 1 - Interpretation of habitats

FRANCE:

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Subject area 2 - Identification of appropriate indicators and targets

SPAIN:

“Bases ecológicas preliminares para la conservación de los tipos de hábitat de interés comunitario en España” (“Ecological bases for conservation of the habitat types of community interest in Spain”)

available in Spanish only: http://www.mapama.gob.es/es/biodiversidad/temas/espacios-protegidos/red-natura-2000/rn_tip_hab_esp_bases_eco_preliminares.aspx

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Subject area 3 - Restoration priorities

ROMANIA:

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Annex IV Projects presented at the Knowledge Market

List of Knowledge Market presentations

1. Widely-spread invasive alien tree species and their effects on plant biodiversity
2. Identifying meadow coenoses attributable to the Natura 2000 habitats 6510 and 6520 in South Tyrol (Italy)
3. Monitoring species and habitats of community interest in Italy
4. Carpathians Unite
5. RESCOM LIFE project
6. Tools of forest management and conservation in Natura 2000 in Bulgaria
7. European deciduous forests and montane semi-natural grasslands
8. Oppla
9. FACE Biodiversity Manifesto
10. Monitoring of Community interest species and habits in the Slovak Republic
11. INCDS “Marin Drăcea
12. ELO projects
13. Dept Biology & Geology, University of Almeria
14. LIFE Nature and biodiversity in Slovenia
15. Nature conservation on military areas in Poland
16. LIFE programme
17. LIFE Redbosques
18. Landcare Associations
19. Results-based agri-environmental payment schemes in Ireland
20. Mountain farming in Austria
21. Restoration projects of Veneto Agricoltura
22. GIScience

1. Widely-spread invasive alien tree species and their effects on plant biodiversity

Title: "Widely-spread invasive alien tree species and their effects on plant biodiversity"

Authors: Thomas Campagnaro, Giovanni Trentanovi, Simone Iacopino, Tommaso Sitzia

Invasive alien species are well-known threat to Natura 2000 sites. Many IAS are tree species of possible concern in Europe, such as black locust (*Robinia pseudoacacia*), tree-of-heaven (*Ailanthus altissima*), as well as black cherry (*Prunus serotina*), and silver wattle (*Acacia dealbata*). These tree species invade different landscapes, hills and piedmont areas, Alpine valleys, and riparian ecosystems, and are a threat to several habitat types, many of which important for biodiversity conservation. Their spread has been favored by human activities for several purposes as they can provide an array of goods and several ecosystem services. We present an overview of the invaded habitats, of the contrasting effects of invasion to plant biodiversity, and of the related management measures.

Poster presentation, possibly with additional posters

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2. Identifying meadow coenoses attributable to the Natura 2000 habitats 6510 and 6520 in South Tyrol (Italy)

An article about a methodology for identifying meadow coenoses attributable to the Natura 2000 habitats 6510 and 6520 in South Tyrol (Italy) will be presented.

Article

Ulrike Gamber

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3. Monitoring species and habitats of community interest in Italy

Handbook for monitoring species and habitats of community interest (Council Directive 92/43/EEC) in Italy: habitat types.

Publication:

<http://www.isprambiente.gov.it/it/pubblicazioni/manuali-e-linee-guida/manuali-per-il-monitoraggio-di-specie-e-habitat-di-interesse-comunitario-direttiva-92-43-cee-in-italia-habitat>

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4. Carpathians Unite

Poster presentation referring to the project "Carpathians Unite": The project is about open habitats protection in Carpathian Mountain by using traditional shepherds knowledge.

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5. RESCOM LIFE PROJECT

Showcasing the progress made on alpine habitat evaluation and monitoring in the RESECOM LIFE Project in Aragon, Spain.

Objectives of the RESCOM LIFE project include the assessment and monitoring the Conservation Status of EIC (plant species) and HIC (habitats) to accomplish the goals set out in articles 11 and 17 of the Habitats Directive. Furthermore, assessing the long term biodiversity effects of global change.

Daniel Goñi

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6. Tools of forest management and conservation in Natura 2000 in Bulgaria

Presented are various tools for management and conservation of forests in Natura 2000 network that have been developed and are under implementation in Bulgaria including:

- special management/conservation regimes adopted and enforced by the national legislation such as the Regulation on Forest Fellings and Regulation on forest inventory and planning;
- a methodology for assessing the index of old-growthness has been developed, fieldwork and surveys in selected areas were carried out and old-growth forests (OGFs) were identified and mapped on a national scale;
- 10% of the woodlands in Natura 2000 were declared as old-growth forests according an Order of the Bulgarian Ministry of Agriculture and Food from Nov 2016. Currently, this comprises an area of 108 000ha. **A map of old-growth forests in Bulgaria is also presented.**
- FSC Certification and National Standard for forest certification. FSC certified forests in Bulgaria are almost 35% of the forest territory of the country.
- Key guidelines and toolkits have been developed and applied: [Guidelines for assessing Favourable Conservation Status of NATURA 2000 species and habitat types in Bulgaria](#), the National Toolkit for identification and monitoring of High Conservation Value Forests, the Regimes for management of forest habitats in Natura 2000.

All this was achieved thanks to the fruitful collaboration between governmental institutions, scientific institutes and NGOs, including the Ministry of Agriculture and Food, Executive Forest Agency, Bulgarian Academy of Science, Association of Parks in Bulgaria, WWF Bulgaria, Bulgarian Biodiversity Foundation, Balkani Wildlife Society, Green Balkans, etc.

Poster presentation

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7. European deciduous forests & montane semi-natural grasslands

Using biodiversity data to define indicators of conservation status

Here we describe two projects: the first focused on European deciduous forests, the second on montane semi-natural grasslands.

The first project derives from a network of four universities and three research centers. It resulted in a comprehensive dataset (more than 350 sampling units) encompassing France, Italy and Hungary on six taxonomic groups and forest structure. The analyses that are being carried out on these data are aimed at testing potential indicators of overall forest biodiversity. Part of these data derive from the LIFE+ FAGUS (LIFE11/NAT/IT/135) for which dissemination material is available.

The second project introduced a new methodology to use historical vegetation relevés and databases to assess the degree of change to which semi-natural grassland habitats were subjected since the historical sampling (1966 to 1992). By revisiting the sampling sites along the Apennine chain we pointed out not only the degree to which different sites changed in composition, but also the environmental and management drivers of such change.

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8. Oppla

Presenting information about Oppla: a platform that combines a knowledge marketplace, an enquiry service and community in the field of nature based solutions for science, policy and practice.

The Oppla knowledge marketplace brings together the latest thinking on ecosystem services, natural capital and nature-based solutions. One can find guidance, software, data and other useful resources.

Furthermore, Oppla Community offers an easy-to-use system for networking with other members from around the world and Ask Oppla crowd-sourced enquiry service, where members of the Oppla community help to answer each other's questions.

Folders and information

Neil McIntosh

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9. FACE Biodiversity Manifesto

Poster and flyers presenting the FACE Biodiversity Manifesto (demonstrating the positive contribution of hunting on biodiversity with a special focus on Alpine regions).

Monia Anane

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10. Monitoring of Community Interest habitats & species in Slovak Republic

Two publications presenting the results of national monitoring of habitats and species of Community interest in the Slovak Republic with recent assessments and complex information related to obligations from Habitats directive prepared by expert nature protection organization - State nature conservancy of the Slovak Republic.

Highlights:

- complex monitoring of habitats and species on more than 10 000 monitoring plots and more than 16 000 field visits
- more than 300 national and international experts involved
- all habitats and species of Community interest according to Habitats directive covered by robust data set
- new IT system for automatic assessment developed

Janák, M., Černecký, J., Saxa, A., (eds.), 2015. Monitoring of animal species of Community interest in the Slovak Republic, results and assessment in the period of 2013 – 2015. Banská Bystrica: State Nature Conservancy of the Slovak Republic. 300 pp. ISBN 978-80-8184-022-7

ŠefferoVá Stanová, V., GalvánkOVá, J., Rizman, I. (eds.), 2015. Monitoring of plants and habitats of Community interest in the Slovak Republic, Results and assessment in the period of 2013 – 2015. Banská Bystrica: State Nature Conservancy of the Slovak Republic. 300 pp. ISBN 978-80-8184-023-4

Jan Cernecky

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11. INCDS Marin Dracea

INCDS “Marin Drácea” is certified as an institution part of the Research and Development System of National Importance and as a Excellence Centre at national level in the field of Forest Biology and Forest Management, by the national authority for research and development. It is licensed for forest management planning, ecological reconstruction and watershed management, forest risk assessment, forest cartography, geodesics and photogrammetry, seeds quality and conservation, pesticides testing on behalf of forest certifying purposes.

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12. ELO projects

A European multidisciplinary office for landowners and land managers. The ELO seeks to develop European solutions to the challenges which will face European decision-makers in the years to come, in particular now that the European Union has welcomed ten new Member States. At the same time the ELO, supported by its Secretariat in Brussels, is best placed to advise on draft European legislation which affects those who live and work in the countryside.

Information will be provided on various ongoing ELO projects.

Emmanuelle Mikosz

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13. Department of Biology and Geology, University of Almeria

The Department of Biology and Geology areas of expertise: botany, ecology, plant physiology, genetics, external geodynamics, microbiology, parasitology, animal production and zoology.

Poster

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14. LIFE Nature and biodiversity in Slovenia

Best practices of LIFE Nature and biodiversity in Slovenia.

Presentation of several LIFE projects in Slovenia mostly those working with species and habitats in the Alpine biogeographic region. In addition, information is provided on the Ministries project on capacity building for LIFE.

The materials presented are:

- 2 self-standing posters (SI Natura2000 Management, LIFE Capacity building)

Leaflets and layman's reports of projects:

- LIFE Artemis - dealing with invasive species in forests;
- 3 projects on large carnivores: Life Dinalp Bear, LIFE Slowolf, LIFE WolfAlps;
- Weatman - dealing with weatlands;
- LIFE to grasslands and SI Natura2000 Management.

Maja Cipot

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15. Nature conservation on military areas in Poland

Books - "Nature conservation on military areas in Poland"

Wojciech Mróz

Ecological consultancy, Poland

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16. The LIFE programme

Information about the LIFE programme and projects publications.

NEEMO is responsible for the monitoring of LIFE projects (LIFE Action grants) and of NGOs that receive funding from the LIFE Programme (LIFE Operational Grants). Furthermore, NEEMO deals with all the communication aspects of the LIFE programme.

A roll-up banner and publications

João Pedro Silva

Neemo - EU LIFE Programme, Belgium

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17. LIFE REDBOSQUES" (LIFE15 GIE/ES/000809)

The RedBosques project aims to improve the management of Spanish Mediterranean forests included in Natura 2000, facilitating access of practitioners to state-of-the art knowledge. The ultimate goal is that forest managers effectively include biodiversity conservation and climate change adaptation objectives in their daily practice.

Specifically, RedBosques seeks to:

- Outline baseline scenarios for assessing the conservation status of Mediterranean forests.
- Develop criteria and tools for the design and implementation of forestry management practices in Natura 2000 Mediterranean forests with objectives that regard biodiversity conservation and climate change adaptation.
- Transfer state-of- the-art knowledge to target audience and stakeholders.

Roll-up banner, some fact sheets about the project, other publications of the EUROPARC Spanish Section in English

Diego García Ventura

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18. Landcare Associations

Information about Landcare Associations. Landcare Associations work in both Natura 2000 and non-Natura 2000 sites, and they can be used as a model to implement Natura 2000.

Brochures about Landcare Associations

Marie Kaerlein

Landcare Germany

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19. Results-based agri-environmental payment schemes in Ireland

Details of and material relating to results-based agri-environmental payment schemes in Ireland will be presented by the National Parks and Wildlife Service. This will include descriptions of the Burren Programme, the AranLIFE project and a DG Environment funded RBAPS project in Ireland and Navarra (Spain).

Andy Bleasdale

National Parks and Wildlife Services Ireland

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20. Mountain farming in Austria

In order to keep mountain farming alive, it needs to be considered in its context. One-sided and impracticable nature conservation jeopardises mountain farming and degrades biodiversity in the Alps.

Information will be given about:

- Problems encountered in mountain farming and by farmers in the Austrian Alps
- The future of Alpine farmers
- A holistic approach to nature conservation

Developers of concepts and ideas should also be equipped with knowledge of how to implement these in practice. This is made possible by projects such as the Volunteer on a Farm project launched by Maschienring Tirol, an Austrian agricultural service and support company. For questions about volunteering on mountain farms, please get in touch with Viola Kirchmair on +43 5 9060700 or via e-mail Inof@freiwilligambauernhof.at.

Robert Ablinger

Landowners Austria

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21. Restoration projects of Veneto Agricoltura

Poster about restoration projects by Veneto Agricoltura.

Cristina Dalla Valle
Veneto Agricoltura

22. GIScience

Poster about GIScience Master Course

Federico Gianoli
GIScience Master Course