Seminar report

3rd Natura 2000 seminar for the Mediterranean region

4-7 May

Online

Consortium Information:
Wageningen Environmental Research, Wageningen Marine Research, Wageningen UR

In cooperation with:
Estonian University of Life Sciences
NatureBureau Ltd.
Regional Environmental Centre
Terra Ecogest
Mãe d'água

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Citation: Carlos Sunyer, Theo van der Sluis, Irene Bouwma, Jorge Capelo, Rui Rufino (2021). Seminar report 3rd Natura 2000 seminar for the Mediterranean Region. Biogeographical Process report.

Cover photo: Vegetation recovering after land abandonment, Quercus ilex with Mediterranean scrub in SAC/SPA Cuencas de los ríos Alberche y Cofio, Madrid, Spain. Picture: Carlos Sunyer.

Event:
More information on the Natura 2000 Biogeographic process
More information on the 3 Mediterranean seminar
Other relevant documents

Contents

1. Introduction

1.1. Context of the Natura 2000 seminar for the Mediterranean region

The Natura 2000 biogeographical process was launched in 2011 by the European Commission. The objective of the process is to promote information exchange, networking and cooperation on Natura 2000 related issues amongst Member States and stakeholders at biogeographical region level. The process involves regular seminars in each biogeographical region to discuss key conservation challenges and agree on a roadmap for cooperative action in the region(s) for the following years.

The Mediterranean biogeographical region stretches along the shore of the Mediterranean Sea. It is the second largest EU biogeographical region, accounting for 20.6% of the EU, and involves eight Member States: Portugal, Spain, France, Italy, Croatia, Greece, Malta and Cyprus.

With a flora of more than 25,000 species, more than half being unique to the region, the Mediterranean is recognised as one of the biodiversity hotspots in the world. This richness is explained by the fact that the region functioned as a refuge for biodiversity during the quaternary glaciations, in combination with a complicated orography and geographic position, making it a crossroads between three continents and two seas. The region has also been shaped by human activity for thousands of years, giving rise to a number of semi-natural habitats, some of which have an outstanding biodiversity.

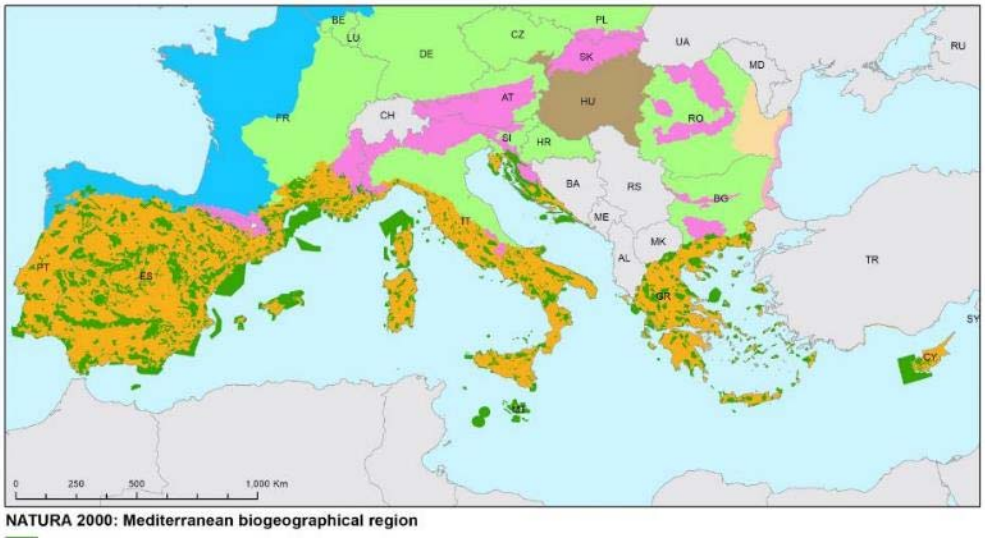


Figure 1: The Mediterranean Biogeographic region (source: EEA, April 2021)

The online seminar took place from the 4th to the 7th May, and was hosted by Calabria Region and the Sila National Park in Italy. 137 registered participants from 11 countries attended, in addition to the 11 people from the supporting team.

The seminar focused on knowledge sharing, with many high-quality presentations. Besides larger plenary sessions and presentations, it included 18 facilitated sub-group meetings, a knowledge market

and additional facilitated group discussions to develop the roadmap for cooperation in the Mediterranean region.

1.2. The four themes selected for the seminar

The seminar was organised around the discussion of four major themes, which were identified and designed in a meeting of the steering committee for the Natura 2000 biogeographical process in the Mediterranean region and pre-seminar expert consultations. These were developed in the input document for the seminar.

- Theme 1. *Defining and coordinating a Natura 2000 restoration agenda in the Mediterranean region.*
- Theme 2. *Defining conservation objectives at site level and monitoring impact of measures.*
- Theme 3. *Addressing land abandonment in the Mediterranean region.*
- Theme 4. *Building Capacity for Natura 2000 management.*

Themes 1 & 4 and themes 2 & 3 were scheduled as parallel sessions (Annex 1). Reports on the outcomes of the thematic group sessions were presented in the plenary session during the last day.

1.3. Reading guide

This introduction is followed by Chapter 2, a summary of the opening and plenary session (day 1). Chapter 3 presents the reports from the four thematic working groups, with the findings and recommendations as presented on the closing day. The plenary discussion of the conclusions, as well as the important issues which might require follow-up actions are presented in Chapter 4.

These actions are included in the roadmap that will be presented to the relevant groups (Steering Committee, NADEG[1]) and made available to the seminar participants and the general public.

Annexes 1 to 3 list the programme, the presentations of the Knowledge Market and participants lists. Annex 4 provides a summary of the seminar evaluation survey undertaken by participants.

The reading of this document should be complemented with that of the input document, where the themes addressed are developed. All presentations from the seminar are available online on the biogeographical process website.

[1] EU Expert Group on the Birds and Habitats Directive

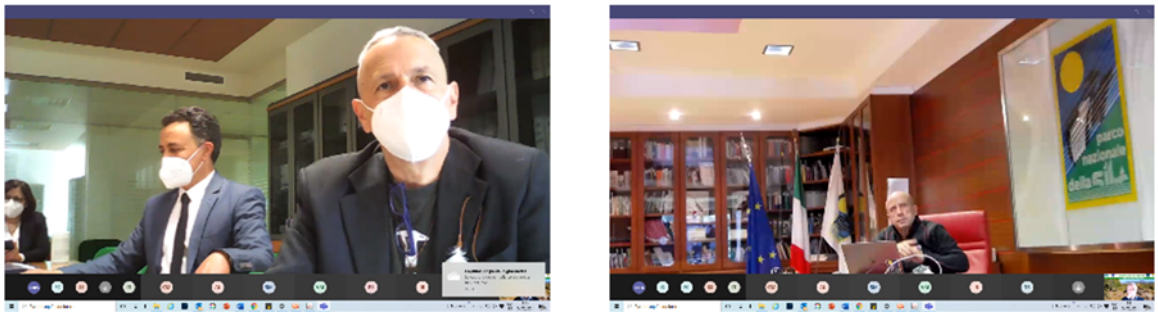


Figure 2: From Left to right: Sergio de Caprio and Francesco Curcio during the opening address.

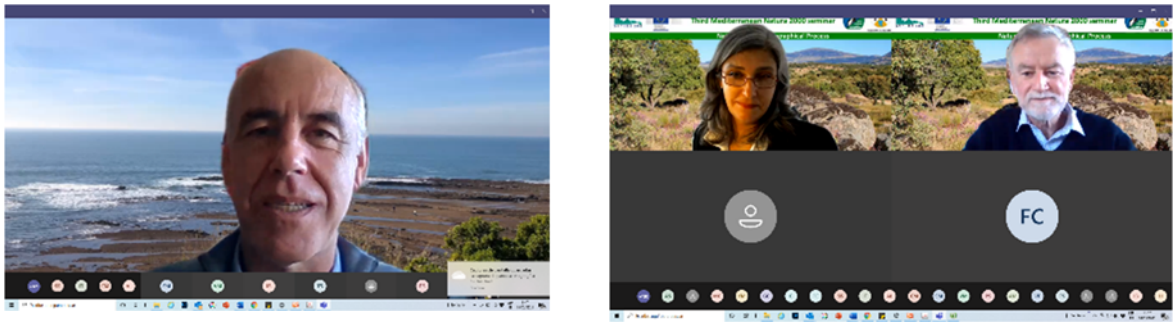


Figure 3: From Left to right: Humberto Delgado Rosa, Sophie Ouzet and Michael O'Brian.

2. Opening and plenary sessions

The seminar was opened by Sergio de Caprio, regional Counsellor of Environment of the Calabrian Region, who welcomed the guests and participants on behalf of the Region. He emphasised the importance of nature and ecosystem services for the development of Calabria, a region committed to relaunching a new development around the Mediterranean, based on the conservation of biodiversity and culture. This was followed by Francesco Curcio, President of Sila National Park in Calabria, who highlited the importance of the area as a biodiversity hotspot in the center of the Mediterranean, due to an extraordinary landscape, cultural resources and links to a historical pastoral tradition. This opening was closed by Antonio Maturani, General Director of Natural Heritage (PNA) at the Italian Ministry of Ecological Transition.

Humberto Delgado Rosa, Director for Natural Capital of the Directorate General Environment (DG ENV) of the European Commission, highlighted the importance of the new EU Biodiversity Strategy for 2030 and the European Green Deal for tackling environmental challenges. Also, that this seminar will instigate a discussion on aims and targets for years to come and provide opportunities for joint action and cooperation by Member States. This was followed by a short movie on the Biodiversity Strategy.

After the opening, Frank Vassen, from DG ENV of the European Commission, introduced the new EU Biodiversity Strategy for 2030 "Bringing back nature into our lives". The Strategy entails the development and strengthening of a coherent network of protected areas within the EU, which includes legal protection of a minimum of 30% of its land area, to form a Trans-European Nature

network. This target also includes an objective for 10% of land and sea under strict protection, including all remaining old-growth forests. The Commission will provide criteria and guidance for identifying and designating additional areas, including a definition of strict protection, as well as for appropriate management planning.

A second pillar of the Strategy is the nature restoration plan: no deterioration in conservation trends and status of all protected habitats and species by 2030, and a favourable conservation status for at least 30% of species and habitats (or a positive trend) by 2030. Furthermore, in 2021, the Commission will put forward a proposal for legally binding EU nature restoration targets, with the aim to restore degraded ecosystems.

This presentation was followed by a movie presenting the Natura 2000 network in Calabria, as well as some of the most outstanding species and habitats types.

Laura Patricia Gavilan, from ETC-BD[2], presented the situation of species and habitats in the Mediterranean region based on the Habitats Directive Article 17 reporting. She started by presenting the situation per Member State. In relation to the habitats, Laura highlighted that those showing a better conservation status and positive trends are rock, heath and scrub habitats. Those in the worst situations are dune and coastal habitats, which are threatened by urbanisation, mainly related to coastal tourism. This is followed by bogs, mires and fens, threatened by agriculture and modification of the water regime.

In relation to species, vascular plants, amphibians and reptiles are improving, whilst molluscs and fish are performing the worst. The main pressures include agriculture, forestry, urbanisation and modification of water regimes. It was highligted that there is still an important lack of information in relation to intertebrates and non-vascular plants.

Sophie Ouzet, from DG ENV of the European Commission, focused her presentation on the perspectives of the biogeographic process and emphasised the challenge of facilitating the uptake of the new Biodiversity Strategy.

Sophie Ouzet then gave the floor to Rafael Hidalgo, from the Spanish Ministry of for the Ecological Transition and the Demographic Challenge (MITECO). In the second Mediterranean seminar, held in Limassol (Cyprus) in 2017, the MITECO committed to advancing the roadmap on the harmonisation of procedures for the monitoring, evaluation and conservation of habitat types of Community Interest. Rafael Hidalgo gave a comprehensive summary of the five seminars promoted by Spain (Figure 4). He also announced that Spain has alocated a budget to continue advancing in this directon and, thus, to contribute to the development of the Mediterranean agenda and to the next seminar.

[2] European Topic Center on Biological Diversity

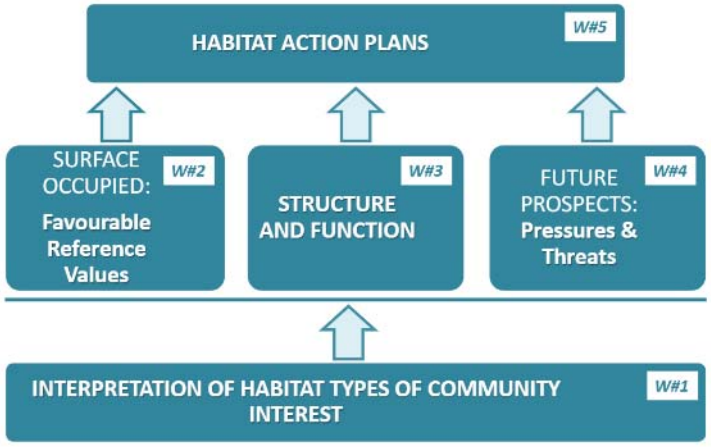


Figure 4: General framework of the five workshops organised by Spain on the harmonization of procedures, promoted by the Spanish Ministry of Ecological transition

3. Thematic sessions

3.1.1. Theme 1 – Defining and coordinating a Natura 2000 restoration agenda in the Mediterranean region.

Chair: Ioannis Tsiripidis (Professor of the School of Biology, Aristotle University of Thessaloniki, Greece); facilitator: Theo van der Sluis (Wageningen Research, The Netherlands).

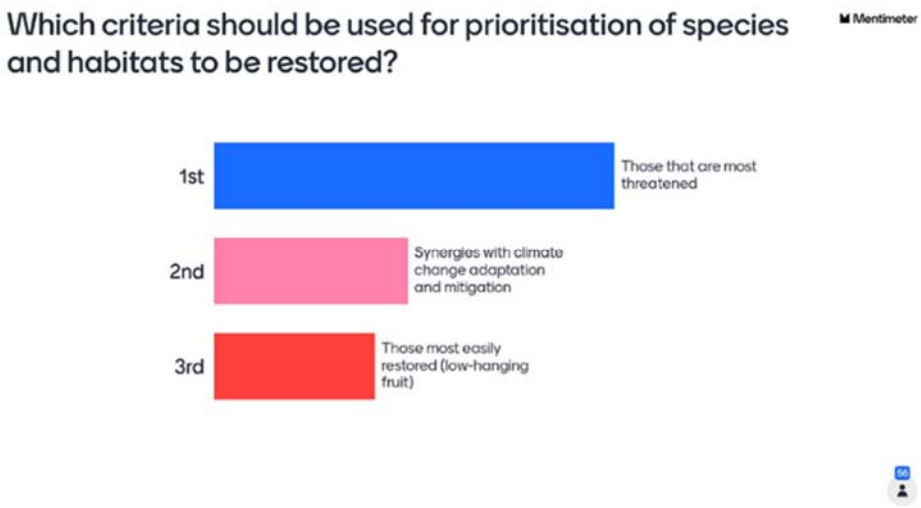
Objectives

- Identify priority actions for the restoration of degraded ecosystems in the Mediterranean region, in particular those with the most potential to capture and store carbon or to prevent and reduce the impact of natural disasters.
- Promote exchange of good practice for identifying priorities for restoration actions (including through the PAFs[3]) that target habitats and species in the Mediterranean region.
- Share experiences on best practice restoration measures undertaken in the Mediterranean region, including from LIFE projects, in view of ensuring upscaling and replicability.

Identified actions in this session are included in the revised roadmap. During the well-attended session, a poll was held asking for the most important criteria for restoration, with the most outstanding response being the level of threat for a habitat or species. Asked whether the countries or regions

[3] Prioritized Action Framework - a plan that each MS drafts to indicate major objectives for Natura 2000 and how they will use EU Funding (LIFE, CAP, Structural Funds) for Natura 2000 and green infrastructure

where participants originate from already have a restoration agenda, most responded that it is currently under development.



Highlights of the presentations

Zelmira Sipkova (ETC-BD) presented restoration priorities in the Mediterranean region. The aim of restoration is to reach a favourable conservation status for habitats and species. It is recommended to prioritise the most 'typical' Mediterranean habitats and associated species (e.g. Mediterranean coastal dunes, forests or sclerophyllous scrub). More than three quarters of the habitat types are in unfavourable status at EU biogeographical level, and more than half of the unfavourable habitats in these groups are further deteriorating. To identify species and habitats it is best to focus on the most threatened habitats and species. The Article 17 reporting data provides good insights into these. However, one should take into account the different parameters from the reporting (i.e. status and trends, habitat condition, favourable reference values, pressures and threats, conservation measures). In planning restoration one should also be specific on what it entails, particularly regarding parameters. Among the sources of information mentioned, in particular important are the Article 17 dashboards – national summaries.

Jordi Cortina (Society for Ecological Restoration-Europe) presented future research, policy and practice on ecosystem restoration. Ecosystem restoration is aimed at enhancing biodiversity and ecosystem functions and services by assisting and hastening natural recovery towards self-sustaining systems. It is important that there is a better documentation of ecological restoration projects. From the start, stakeholders should be involved in the restoration process. The use of multiple indicators, at appropriate scales, should be considered to monitor the effectiveness of the restoration measures. One of Jordi's recommendations was to design and implement standards of practice and certification schemes where possible. Finally, essential for restoration to be succesful is political willingness and funding.

Alessio Satta (MedWet) presented the protection, management and restoration of Mediterranean wetlands as nature-based solutions to address environmental and climate changes. MedWet stands for the Mediterranean Ramsar initiative and includes eight EU member states, as well as a number of IPA countries[4]. MedWet it is making a major effort to preserve and restore wetlands, with many synergies with the objectives of the biogeographical process. Mediterranean wetlands are among the most threatened ecosystems: 69% of wetland habitats are in an unfavourable conservation status and 30% have a declining state of conservation. MedWet is actively identifying priority areas to be restored and the criteria to be used. It is further disseminating good practices, and training of key decision makers, managers and practitioners. Cooperation and exchange of experiences is the core activity of MedWet, demonstrated by the organisation of training courses, carrying out cross-border projects and the exchange of good practices.

Aljoša Duplić (Institute for Environment and Nature, Croatia) presented the progress made on restoration in Croatia. Only part of the country is in the Mediterranean biogeographical region. He presented a number of examples for restoration, in particular on freshwater ecosystems. There have been pilot projects for dam removal, and the development of fish ladders to improve riverine habitats.

Discussion in breakout groups

Breakout groups consisted of approximately 5-12 participants. The discussion focussed on how to decide on priorities and implement restoration activities in the Mediterranean region.

The first question, how countries come from the prioritised action framework towards restoration action, gained limited responses as most of the participants were not sufficiently aware of the formulation and role of the PAFs, and the starting point is very different between countries. However, they agreed that a balance is required between a top-down and bottom-up approach, based on local initiatives. Asked whether the PAFs should be updated in the light of the Biodiversity Strategy for 2030, the majority of participants indicated their support.

To ensure good restoration actions it is important to include knowledgeable people. Here, both the social context and the ecological/technical knowledge should be incorporated. It is also important that (long-term) financing is ensured, since restoration and consecutive actions require a long-term commitment. Access to land is also an essential element: this requires collaboration with local stakeholders to obtain their long-term commitment, which ultimately will be decisive for the success of restoration measures.

There are synergies with LIFE projects and possibly other EU-funding and regional projects.

[4] Instrument for Pre-Accession Counties (IPA), includes EU candidate countries (Turkey, Albania, Montenegro, Serbia and the Republic of North Macedonia) and potential candidate countries in the Western Balkans (Bosnia and Herzegovina, Kosovo under UN Security Council Resolution 1244/99).

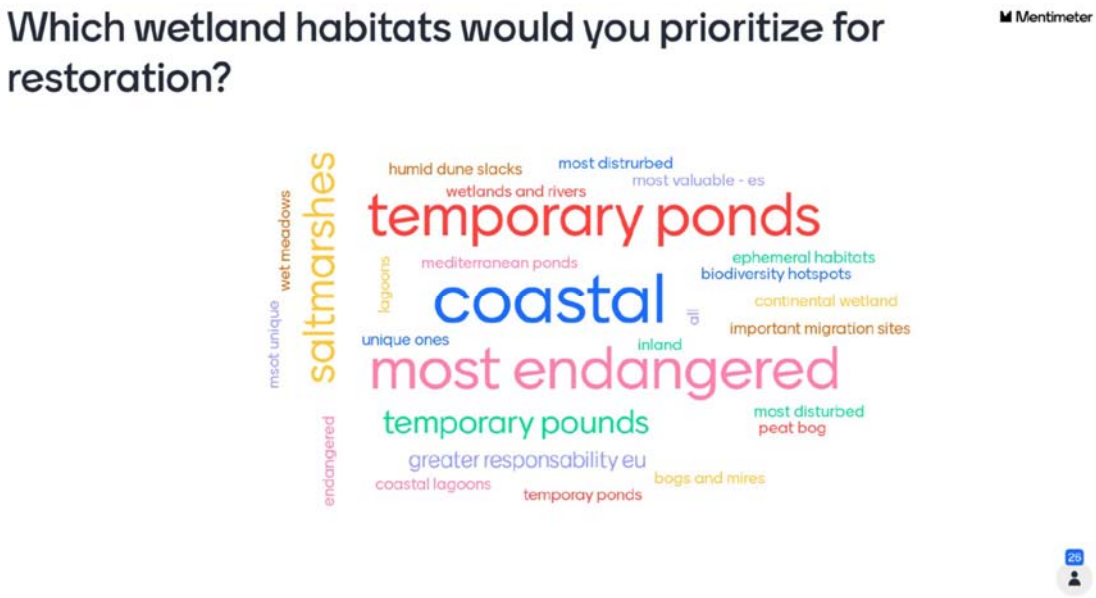
Among good examples of restoration actions, participants mentioned that quantified goals and methods for monitoring the results should be defined when preparing the restoration measures. These measures should address ecological processes and restore them where possible. This requires a good understanding of ecosystem functioning.

Active involvement of local communities and the general public is important for long-term restoration success. Therefore, communication with stakeholders is key, alongside sharing examples of successful restoration actions with local communities.

Possible joint actions for Member States can be:

- Development of common actions between countries at practitioner scale (e.g. volunteers from different neighbouring regions), to create common understanding.
- Development of joint projects for eradication-control of invasive species.
- Cooperation between EU or non-EU countries for transboundary ecosystems-habitats (e.g. lakes, rivers, coastal areas).
- Setting restoration priorities at the biogeographical region level.
- Information sharing.
- Make scientific knowledge better accessible for practitioners and policy makers.

Restoration projects that were mentioned as good examples often concerned rivers, wetlands, coastal dunes and other coastal areas.



Network meetings of experts and Member States ensure a good flow of information between Member States. Networking events organised under the umbrella of the biogeographical process can therefore be very instrumental.

Coordination of restoration actions within countries and beyond boundaries is essential: restoration should not be a sum of projects, better results can be achieved through coordinated activities and sharing common frameworks. A concerted plan of action is required to improve connectivity both within regions and across national boundaries where corridors exist or should be restored.

There can be challenges at administrative levels as administrative processes are sometimes slow. Once opportunities for restoration occur, often swift action is required, but public administrations tend to be rather slow in taking the necessary steps. This might require administrative routes to be sped up to facilitate practical action. Restoration requires both bottom-up and top-down approaches. Coordination and information sharing between administrative levels is therefore important.

Within and between countries the communication between science, conservation practice and the administrations need to improve (science-policy-practice interface). The use of common language within technical information exchanges will improve knowledge exchange and better uptake of information. Reports for practitioners should be available in English, making the information more easily shared across borders. A common database which hosts the deliverables of LIFE and other EU-funded restoration projects could also improve restoration activities and knowledge exchange and should include contact information for involved partners. The information concerning biodiversity and restoration needs to be accessible for all administrative levels involved in the restoration process. Information from projects funded by public funds should be open access. The round of workshops that Spain initiated has also resulted in better knowledge sharing.

3.1.2. Theme 2 – Defining conservation objectives at site level and monitoring the impact of measures

Chair: Carmelo Maria Musarella (Researcher of the Dpt. of Agraria, Mediterranea University of Reggio Calabria, Italy); Facilitator: Jorge Capelo (Mãe d'água, Portugal).

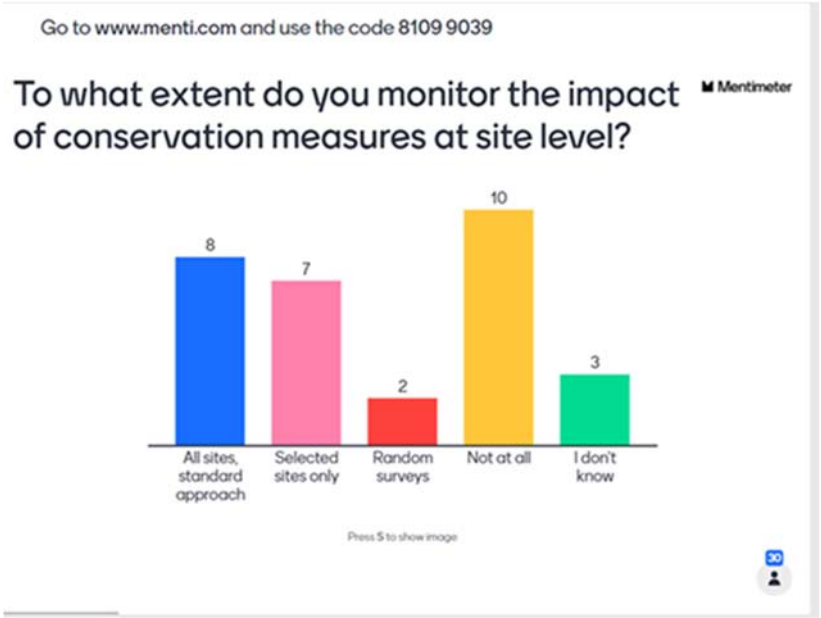
Objectives

- Expand on discussions held in the Spanish workshops[5].
- Share experiences so far at different scales (i.e. from site level to the regional level) and use practical examples of the establishment of conservation objectives, including best practices and challenges, with reference to the legal obligations set out in the Commission note on conservation objectives as background.
- Discuss commonalities in Mediterranean habitats conservation and monitoring objectives, to recommend cooperative actions to be shared and included in a new version of the roadmap.

[5] You could find more information on the seminars on the harmonization of procedures here.

An overview of the process across countries was obtained by asking all participants to reply to polls. The first question was: "at what level, in their own countries, conservation objectives were set - national, regional, local?" Most replies were that objectives at local level predominated. Moreover, lack of knowledge and the absence of data were identified by participants as the main constraints in the actual process.

Participants were also asked "to what extent results of conservation measures at site level are monitored". Half of the countries implement monitoring programmes of measures using standard national protocols; the other half reported not using a standard approach. Some have partial monitoring done in the scope of specific projects or research programmes. From discussion, it is clear that this also corresponds to distinct different regional protocols. Several countries did not implement any consistent monitoring program, and instead, base evaluations on indirect sources. Finally, when asked about the monitoring of the efficiency of measures, a poll among participants found that no systematic assessment of efficiency of monitoring seems to be in use, except for those few countries already with well-developed monitoring programmes.



Highlights of the presentations

Frank Vassen (EC, DG ENV) opened the session with a presentation on site-specific conservation objectives for Natura 2000. He highlighted that, between the declaration of a site as SAC/SPA and the application of conservation measures, the establishment of site specific conservation objectives is mandatory. To this end, it is important to evaluate the site´s contribution to the overall goal of achieving favourable conservation status at biogeographical level - either of the habitat itself or its component species. Establishng a site-level baseline is not only basic for identifying the appropiate

conservation priorities and measures, but also for the proper assessment of the potential impact of plans and projects.

Site-level conservation objectives should be site-specific, comprehensive, reflect the importance of the site at higher levels (national, regional, bioegraphical), and specific to critical habitats and species. To make comparisons and assessment (monitoring) possible, the latter should be quantifiable.

Frank Vassen concluded that:

- Given their key role in the protection and management of Natura 2000 sites, it is essential that site-specific conservation objectives are set, without delay, for all Natura 2000 sites; and that they are made publicly available.
- When setting site-specific conservation objectives, it is important to link them to the overall goal to reach favourable conservation status of habitats and species, including birds, at national (or national biogeographical) level.

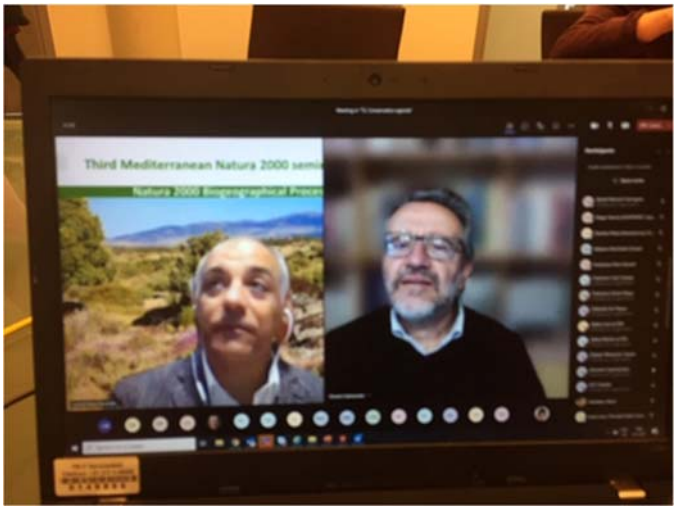


Figure 5: During the discussion, Carmelo Maria Musarella (left) with Giovani Spampinato (right)

Frank Vassen's presentation was followed by others on monitoring and the implementation of conservation objectives. **Piero Genovesi** (ISPRA, Italy) explained how standardized procedures for monitoring have been implemented in Italy, a high decentralised country with 21 administrative districts in charge of monitoring and enforcing conservation measures. To this end, a national monitoring plan is in place and ISPRA has produced a set of tools for assessing population trends and tracking the efficacy of conservation measures. He was followed by **Giovanni Spampinato** (Univ. Mediterranean Studies, Reggio Calabria, Italy) with a an example of how this monitoring takes place at regional level, focussing on forest habitats. In the same standardization line, it has also been necessary to establish a methodology for the definition of conservation objectives for achieving the favourable conservation status of habitats and species. This was the subject of the presentation of **Francesca Pani** (Support to the management of Natura 2000 sites, project Mettiamoci in RIGA, Italy).

Pedro Ivo Arriegas (ICNF, Portugal) completed this session presenting the methodology followed in mainland Portugal for the design of management plans for Natura 2000 sites.

These presentations may be taken as representative of national approaches, providing a state-of-the-art image of both conservation objectives and monitoring of measures. Some general conclusions may be drawn from them. First, that there are many differences in methodology, intensity of sampling, level of detail, and focus among countries in the Mediterranean region. Some differences are due to distinct scientific settings of the monitoring plan, but many arise from their own distinct institutional contexts. Approaches may vary between countries (and even between regions) as they are promoted by correspondent regional/national authorities. Secondly, the level of development of monitoring schemes also differs a great deal, with varying resources allocated to them by countries or regions. Schemes may vary from simple consultation of expert opinion to intense monitoring/sampling of a dense national plot network. Moreover, case studies presented suggest that countries are in distinct stages of the process. Presenters expressed the need to coordinate their own programmes with neighbouring countries, or within countries sharing the same habitat or species.

The last presentation was by **Paul Rouveyrol** (UMS Patrinat OFB/CNRS/MNHN, France), on the assessment of the ecological effectiveness of the conservation measures in the French Natura 2000 terrestrial network. Three scales of analysis were considered: biogeographical region, site level and plot level. The analysis followed several approaches, including modelling and comparisons over an exceptionally large heterogeneous network of sites.

The study concluded that:

- Natura 2000 sites are, in general, in better condition that outside the network.
- There is a positive effect of measures, but it is limited to curving the decline rather than reversing it.
- Only 20% of sites are in good condition.

The study also highlighted the lack of suitable data for assessing the role of protected areas. As a result, France will reinforce, with increased funding, the sampling network for evaluation. The expected outcomes are to assess the effectiveness of the most common measures, test protocols, and provide feedback to improve the management of the Natura 2000 network.

Discussions in breakout groups

Each day focused on a number of issues relating to a specific subtheme which the breakout groups discussed, triggered by a series of questions.

Subtheme: *Conservation objectives.*

What bottlenecks do you experience in setting conservation objectives?

- Lack of knowledge. For instance, on favourable reference values, knowledge of critical ecosystem functions, bioindicator species and expected response to change or disturbance.

Also, the setting of common grounds on these parameters so that comparisons at regional, national and biogeographic level could be made. An example is "what are indicator species (either common or equivalent) across the biogeographic level that could be used as bioindicators of habitat quality or dynamics?"

- Lack of material means to implement monitoring - either the funding or contracting trained personnel able to perform the assessment (project managers, trained botanists, ecologists, etc).
- Difficulties in communication or even resistance to comply, collaborate or just be favourable to conservation objectives. This includes stakeholders, the public (e.g. farmers, developers) and politicians - even those involved more or less directly in the planning of conservation policies. On the other side, there are difficulties in interpreting scientific discourse on monitoring (papers, sampling protocols), or an absence of practical guidance on complex sampling procedures.

Where can cooperation across borders help you? How do you initiate this?

- Working together at biogeographical level is a mandatory. Harmonisation of evaluation procedures.
- Setting common protocols and comparable monitoring parameters. Example: Favourable Reference Values for the same shared habitats.
- Get involved in common multinational projects (e.g. LIFE/Interreg)
- Setting a permanent communication platform to facilitate the goal of harmonisation. Some propose using already existing ones (GEOBON, EUROSITE).
- Some of the participants think that the proactive way to move harmonisation forwards is to agree on using common, already available, national protocols; namely those used with success in some countries (e.g. Spain, Italy, France, in part).
- Establishing a permanent network of regular specific workshops to share experiences is also mandatory.
- Setting permanent working groups specific to several habitat groups (e.g. establishing sets of common indicator species, FRV, common approach to threats, etc).

Subtheme: *Monitoring*

What are the difficulties you encounter to develop effective monitoring of measures?

- Incongruence or difficulties in obtaining consistent guidelines from different national and EU level entities involved in conservation.
- Absence of setting of conservation goals by the administration, or policies that are too vague and difficult to implement.

- All those cited for the first subtheme: absence of knowledge, absence of means (funding, personnel, communication among all involved in conservation; including the administration, public, stakeholders, farmers).

What (joint) actions can help you to develop the monitoring of the effectiveness of management measures?

- Promote harmonisation across countries in the biogeographical region. Primarily by achieving common grounds on monitoring methodology, protocols and comparable parameters for evaluation (FRV, bioindicators, etc.)
- Obtain the means to fill-in the knowledge gaps supporting monitoring and management action: funding, communication network, promoting harmonisation of procedures. The immediate production of a common manual with agreed, simple-to-implement measures is desirable.
- Find support in the strengthening of monitoring teams: funding, personnel, congruence in conservation objectives, either at national or EU / biogeographical level.
- Find the means to effective communication with the public, stakeholders and distinct entities involved, outside the Natura 2000 process. This means divulgation, communication campaigns, and promoting a proactive democratic mind set.

In brief, the general opinion from breakout groups is that there are specific difficulties in the Mediterranean region compared to other regions. First, the number of habitats and species for which site level objectives need to yet be set is high. Lack of knowledge and insufficient data are often major bottlenecks to setting objectives at site level. Some people suggested indicator species for habitats across the biogeographic region could serve as bioindicators of habitat quality, dynamics, or for structure and function. Still, there are technical difficulties in implementing such an agreed protocol spanning the whole of the biogeographical region – especially one that is simple to implement by site managers and technicians at local level.

Lastly, all participants emphasised that the lack of resources to implement monitoring is an obstacle to monitoring the impact of measures. Too often, no staff or funding is available for contracting trained personnel.

A consensual list of joint actions that Member States should seek as soon as possible is:

- Setting conservation objectives for site level that are consistent with priorities at the biogeographical level.
- Evaluate the contribution of local sites to regional, national, and biogeographic levels; and allow such information to be available at all times.
- Ensure long-term financing, especially of permanent monitoring networks.
- Ensure long-term contracting of well-trained personnel for tasks of transposing national and regional objectives and actions at site level, and implement monitoring protocols.

- Information sharing and producing knowledge on ecosystem function and responses to actions and threats.
- Setting of common ground between countries on bioindicator species of habitat state and tendencies, in the form of a database or manual.
- Setting of minimal shared requirements in designing national monitoring protocols.
- Intensification of collaboration with local stakeholders
- Development of common actions between countries at practitioner scale.
- Make scientific knowledge better accessible for practitioners and policy makers.

3.1.3. Theme 3 – Addressing land abandonment in the Mediterranean region.

Chair: Michael Vrahnakis and Yannis Kazoglou (Professors of the Dept. of Forestry, Wood Sciences & Design, University of Thessaly, Greece); Facilitator: Carlos Sunyer (Terra Ecogest, Spain)

Objectives

- Discuss the role of land abandonment for achieving the objectives of the EU Biodiversity Strategy for 2030.
- Identify possible rural abandonment management plans (e.g. prioritise areas for high nature value (HNV) farming and areas for abandonment in favour of biodiversity, rewilding objectives; management of scrub and forest fire prevention).
- Exchange knowledge and best practices of integrated approaches addressing the impact of land abandonment on Natura 2000 sites:
    - Use of CAP[6] and market instruments.
    - Stakeholder involvement (livestock farmers, markets, etc.).
- Identify opportunities for transboundary cooperation on integrated Natura 2000 management.

Highlights of the presentations

Carolina Perpiña (JRC, Italy) **and Stephen Mackenzie Bell** (Universitat Autònoma de Barcelona, Spain) made a joint first presentation. Carolina Perpiña introduced the JRC research results based on LUISA, a land use model conceived to contribute to territorial impact assessment and analysis of trends and policies. It is based on driving factors of land abandonment, alongside agro-economic and farm structural factors. The model showed that over 25% of EU agricultural land (50 million ha) is under moderate, high and very high risk of abandonment. The future projections show that by 2030, 5.6

[6] Common Agriculture Policy

million ha (3% of the total utilised agriculture area) will be abandoned, and a quarter of it (1,377,000 ha) will occur in mountainous areas (Figure 3).

The second part of the presentation reviewed the impact of land abandonment on soil health. Although in the Mediterranean region abandonment does not always guarantee soil recovery in all areas, the studies show that as a whole it does (Figure 6).

Teresa Pinto-Correia (University of Evora, Portugal), presented how CAP subsidies should be redesigned for the conservation of Montados/Dehesas. This is a semi-natural habitat (hab 6310) based on an agro-silvopastoral system, with a high biodiversity and ecosystem service provision. According to several studies it is in a slow decline, with an annual loss of 5,500 ha/year (1990-2006), continuing with an estimated loss of >9 000 ha/year.

Despite the existence of legal protection status and agri-environmental schemes encouraging its conservation, the coupled livestock payments (CAP Pillar I) lead to the intensification of livestock production, causing a major impact on the balance of the Montado. The solution should be to incentivise farmers to deliver environmental benefits, which would require results-based measures, in relation to a known conservation status.

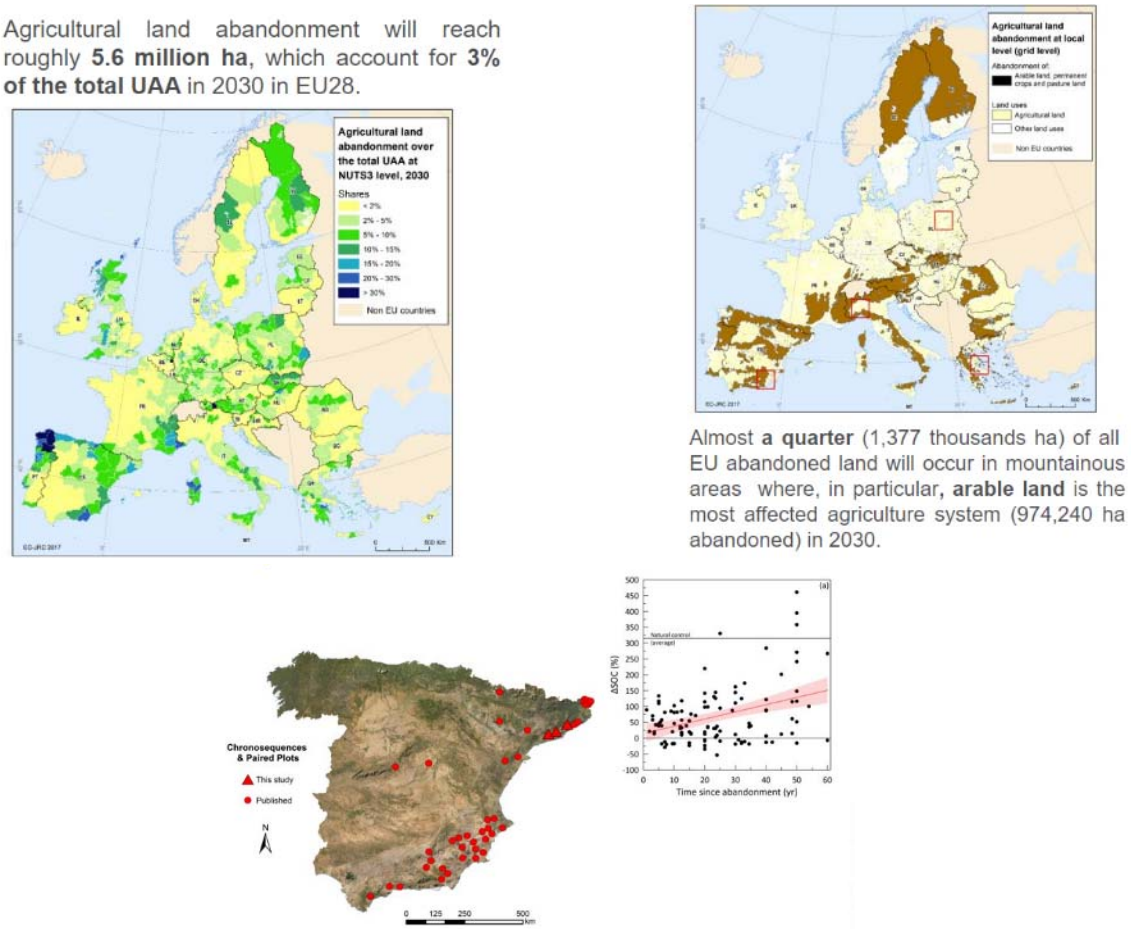


Figure 6: Top: Future projections from LUISA on land abandonment 2030. Bottom: Increment of soil organic carbon over time after land abandonment (Bell, et al., 2021)

Carlotta Magio (WWF-Italy). WWF Italy manages a network of over 100 nature reserves (oasi), protecting a wide range of habitats. Some of them were losing biodiversity due to the loss of the tradicional agricultural activities, and therefore one of objectives of the network was to restore their lost HNV farming systems.

For this aim, they looked for a market-based solution. They brought together farmers and other business from their nature reserves, and created Terre dell'Oasi. The mission is to produce, transform and market organic food products from WWF reseves and neighbouring areas. The products have to meet specific criteria, including being organic certified, from a protected area, and produced by farmers who undertake conservation work for biodiversity. Their production contributes to the 15.8% of organic farming in the country. At present they sell a wide range of products including wheat, pasta, olive oil, honey, tomato paste, sea salt, legumes and wine; which are sold online and in shops. The achieved results include the restoration of high nature value farming, biodiversity improvement, job creation, and revenues to invest in conservation work in the protected areas.

Veronica Cruz-Alonso (Harvard University, Graduate School of Desing, USA) began her presentation by showing how rural abandonment has led to a recovery of forest, with a 0.85% annual increase in the Mediterranenan region (1990-2010), a 79% of which from natural regeneration after land abandonment (Figure 7). This has led to the recovery of certain species (wolf, ungulates, bear, etc).

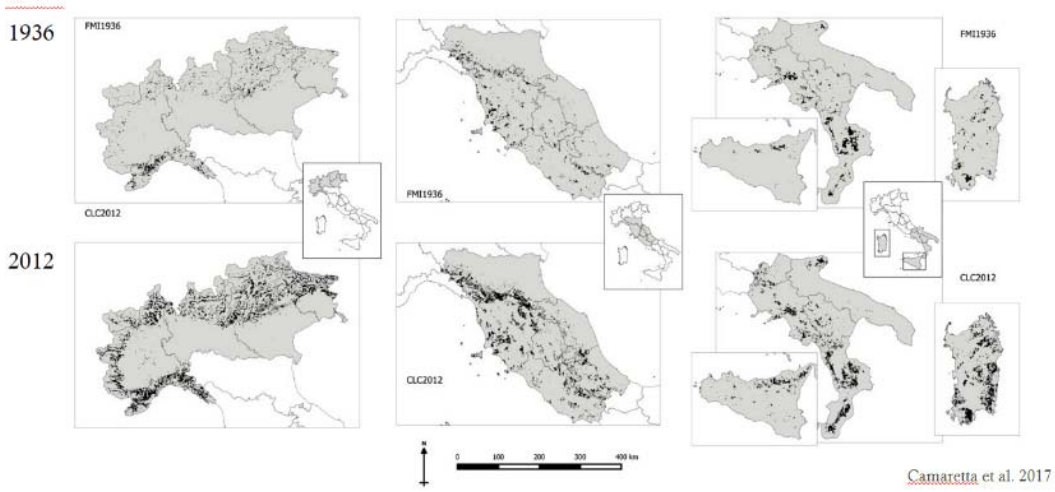


Figure 7: Forest restoration at landscape level in Italy (After Camaretta et al, 2017)

Research results show that, although (in most situations) naturally regenerated forest can provide similar services to planted forests at significantly lower costs, planted forests are still necessary in some situations. Aditionally, long-established managed forests are less affected by droughts than naturally regenerating, unmanaged forests.

Veronica Cruz-Alonso's message was:

- Naturally regenerating forests on previous agricultural lands can contribute to massively up-scaling efforts to restore degraded and lost ecosystems and combat climate change in an effective manner.

- Holistic land-use planning is essential to promote (or limit) natural forest expansion and allocate active restoration actions (planting/seeding) where needed, according to the objectives.
- We have several lessons to apply from past human-made afforestation in the Mediterranean Basin, but we are starting to understand the legacies of modern agricultural and forestry practices in planted and secondary forests - and their consequences in a context of climate change.

Giuseppe Bombino (Univ. Mediterranean Studies, Reggio Calabria, Italy) focused on one of the main risks arising from land abandoment, wild fires - a recurrent phenomenon in Mediterranean ecosystems. For example, 2017 was an *annus horribilis* in the region, with more than 213,000 ha of forest burned in Portugal and 140,000 ha in Italy, which affected 25,000 ha of SPA and 22,500 ha of SCI.

To address the situation in the Aspromonte (Calabria), a series of agreements were promoted with the associations of civil protection volunteers, with farmers, forest owners and stockbreeders, to increase awareness and develop an early fire warning network. For example, they created the figure of the eco-shepard, a mountain sentinel which recovers the ancient relationship between man and nature, giving professional and economic dignity to a figure often relegated to a marginal social role. This strategy has showed to be successful in reducing the number of fires and the burnt surface, with a cost two orders of magnitude less than the expenses in firefighting.

Pedro Prata (Rewilding Europe, Portugal) presented a best-practise example on how to manage land abandonment through rewilding. The project aims to rewild the Côa Valley, in Portugal, creating a large wildlife corridor to connect five Natura 2000 sites. It covers 120,000 ha (38% of the Côa river basin), of wich 10,000 ha are publicly owned, and 5,000 ha are private protected areas.

They applied a holistic approach for it: acquiring properties to privately protect as stepping stones; reintroducing the missing species and processes in the landscape; risk reduction (poaching, poisoning, fire); prevention of predator conflicts; supporting the development of nature based businesses; and raising awareness on nature.

Jóni Vieira (Montis, Portugal). His case study looked at how to manage abandoned lands to improve biodiversity in the north of Portugal. An area with high vegetation productivity, which supports the fast replacement of abandoned land by a dense scrub in areas with poor soils and almost no seed banks. The new scrubland is a monotonous habitat, with a reduced biodiversity, where the ecological succession is very low. Also, it is very flamable, thus with a low resilience to wild fires.

They based their management on volunteers, because despite being more expensive than professional workers, volunteer schemes provide citizen engagement and help raise awareness on land abandonment and biodiversity issues. To open spaces to increase biodiversity and foster tree growth,

they used prescribed burning to create a mosaic. The results show the natural regeneration of the seed bank, which gives place to tree growth and initiates the change towards a more diverse landscape.

Discussion in breakout groups

The causes behind rural abandonment are diverse and site-specific and, in any case, it takes place when the costs are greater than the benefits for farmers (this goes beyond economic issues). Because of this, the solutions are complex and site-specific, and must include a holistic approach which takes into account the driving forces that can shift the balance, making the way of life behind the activities profitable again.

Key policy tools include the improvement of farming conditions and life in rural communities. Although these have been widely implemented, backed by the European Structural and Investment Funds, this has been shown not to be enough. These tools need to go further by helping farmers to increase the net benefit of their activity. This applies not only to areas affected by abandonment, but also to the long-term maintenance of some habitats (grasslands, wetlands, etc.). Several examples were presented, with different approaches:

Reducing costs:

- Improve their relative position in the food chain. Examples were mentioned where NGOs become intermediates between producers and final consumers. For some products, internet sales are also doing well, but it was noted that it is a complex solution.
- Facilitate specific operations. E.g. in some remote areas of France, farmers face additional costs in transporting their livestock to remote abattoirs. To help them in reducing costs, mobile slaughterhouses are used.
- Bring together local stakeholders (e.g. Terre dell'Oasi).

Increasing value:

- Backing up their productions with specific labelling schemes, showing that they have been produced whilst contributing to nature conservation, to help involve consumers in the protection of nature. Several examples were mentioned (e.g. Terre dell'Oasi, LIFE Estepas de la Mancha). In this regard, the existence of a Natura 2000 certification scheme was claimed as essential, reinforcing the link of the Natura 2000 network with society.

How can these measures be applied at site level? Their implementation implies an effort that goes beyond money, as it requires avoiding business as usual (EU subsidies). Site managers could encourage the application of similar measures, but additional skills are needed. These should be included in the capacity building programmes in relation to the management of semi-natural habitats (e.g. grasslands, montados/dehesas, wetlands). In any case, the measures to prevent the abandonment of HNV farming

should be implemented as soon as possible, otherwise, it could be too late, and their restoration, if possible, will be more expensive.

On the second day, rural abandonment was addressed as an opportunity to restore nature and ecosystem services. The presentations showed that rural abandonment is a huge, silent process that will continue to affect millions of hectares of land in the coming years. One of the consequences is the spontaneous reforestation of millions of hectares. However, in many areas this process can take very long time due to several factors (e.g. deteriorated soil, unfavourable climatic conditions, poor seed banks), and it is also not free of risks, among which forest fires stand out. It was stressed that there is the need to manage this process to speed up forest recovery, enhance biodiversity and other ecosystem functions, and increase resilience to environmental imposed risks like drought and wildfires.

The opportunities to deal with land abandonment within the EU Biodiversity Strategy for 2030 were highlighted: habitat restoration, ecological corridors, protection of new sites, enhancement of ecosystem services (e.g. carbon storage, resilience towards climate change, safeguard of water balance). But also, it stands as a challenge for the conservation of certain habitat types and species (e.g. steppe birds and other agricultural related species).

To take advantage and manage this process in an environmentally friendly direction, it was proposed:

- To develop and implement Land Abandonment Management Plans that might determine abandoned areas with opportunities for rewilding and others abandoned areas where high nature value farming would be maintained.
- This should be supported with demonstrative examples, to be used as best examples of available options: rewilding, increase resilience of the new forests, risk management, conservation of grasslands, etc.
- The management measures should be eligible and included in the CAP provisions.
- Raise public awareness on the opportunities and risks of land abandonment processes, for which it is important that scientific results are vulgarised and disseminated.

Summarising, we should recognise the importance of the silent process of land abandonment and define how to improve biodiversity and habitat conditions in abandoned areas through active management. In addition, we need to expand knowledge on the processes of land abandonment, which must take a central place in integrated rural development policies and the environmental policy agenda. Dealing with land abandonment in an efficient way can be beneficial both for nature and people in many rural areas, especially protected ones where inhabitants remain active in high nature value farming. Whilst for areas where rewilding will take place, monitoring is needed to better understand the related processes both at the natural and the social levels.

3.1.4. Theme 4 – Building capacity for Natura 2000 management

Chair: Sabina Burrascano (Professor Dpt. Environmental Biology, Sapienza University of Rome, Italy); Facilitator: Irene Bouwma (Wageningen Research, The Netherlands).

Objectives

- Exchange knowledge on the gaps/needs to improve the capacities of the managers of Natura 2000.
- Share ideas and best practices on the development of learning communities and mechanisms, instruments and tools potentially successful for this purpose.

This session focused on various capacity building programmes and projects to share best practices on capacity building among organisations active in different Member States. Identified actions are included in the revised roadmap.

During the plenary, a poll was carried out to see which skills participants felt needed strengthening. The top-ranking competences were protected area policy, planning and projects, as well as communication and cooperation.

Highlights of the presentations

Neil McIntosh (EUROPARC Federation, The Netherlands) presented the capacity building programme put in place in the context of the LIFE e-Natura2000.edu project that started in 2018. Following an initial inventory of the competences Natura 2000 site managers need for their work, a practical training programme has been developed to strengthen the capacities of Natura 2000 managers. The

programme uses a variety of approaches to capacity building such as online platforms (e.g. Moodle), webinars, demonstration videos of best practices, filmed ”master class” tutorials, practical assignments, LIFEedu’s smartphone app, face to face workshops and summer schools.

Throughout the project, the focus is on enabling managers to gain new insights and skills, share experiences and apply their learning to benefit their Natura 2000 sites and protected areas. Due to Covid-19, the training shifted almost completely to online platforms. This required the project partners to adapt their approach, but at the same time also increased the number of participants joining the various trainings and courses offered. People interested in learning more about the project can visit the web site. Also, a new and expanded successor project (LIFE ENABLE) will start in the second half of 2021. This will be of interest to all Natura 2000 and protected area managers and will include specific courses for managers of forests and marine sites. Information will be available from September 2021 on www.europarc.org.

Figure 8: From right to left: Serena Correzzola, Sabina Burrascano and Neil McIntosh during the sessions

Mara Rihouet (Office Français de la Biodiversité, France) outlined the capacity building programme for Natura 2000 managers in France by the Natura 2000 Technical Resource centre. The programme programme aims to develop the skills and technical support for all involved in the implementation of Natura 2000. Based on an online need assessment, combined with the evaluation of trainees, a yearly programme was developed. In 2021 more than 50 certified training courses were offered on a wide range of issues. In addition to the training program, the centre also produces and distributes various publications and tools (newsletter, management guidance handbook, twitter, Natura 2000 award etc).

Sabina Burrascano (Sapienza University of Rome, Italy) presented the COST-action Bottoms-up which focusses on building capacity to assess the response of forest biodiversity to management. As biodiversity is complex, particularly in forests, its assessment should be based on multiple taxonomic groups. Based on already undertaken LIFE projects and research programmes, a standardised approach has been developed. The project started by synthesising the approaches used by 41

European multi-taxon projects to create a handbook for field sampling. In addition, training will also be organised in September of this year, and short scientific missions can be funded through the programme.

Maša Ljuština (Institute for Environment and Nature, Ministry of Economy and Sustainable Development, Croatia) presented the systematic approach taken towards capacity building for protected area and Natura 2000 managers in Croatia. Although the programme does not solely focus on Natura 2000 sites, the programme is important, as all Natura 2000 and protected areas are managed by the same authorities with a system of governance by the government. The nature protection strategy and action plan both have a goal to strengthen the capacities of nature protection systems, with a specific goal to strengthen the technical knowledge and skills for effective implementation of nature protection (goal 3.2). The programme consists of a wide range of activities such as expert meetings, and an internal portal for information exchange. The education programme is competence based, the courses take 2-3 days, and often more experienced staff act as trainers. In the period from 2011–2017, 74 training sessions were organised and over 1,300 people were trained.

Serena Corezzola (D.R.E.AM., Italy) presented the LIFE GoProFor project which focuses on capacity building for European foresters. The project aims to improve the cooperation between actors from Natura 2000 management and forest sectors by developing technical tools and by exchanging good practices through training and networking events, with the ultimate aim of developing a common lexicon and improving the use of rural development measures under the CAP. An example is the programme run in Tuscany, where, in a joint regional lab, staff from the authority in charge of Natura 2000 management and the Environmental and Forest Departments are trained. The project develops a best practice community and develops training systems with both practical and experiential elements (not only e-learning) for all of the people who are involved in the various aspects of forest and Natura 2000 management (governance, planning, intervention executions, control).

Discussion in breakout groups

Breakout groups consisted of approximately 4-8 participants. The groups discussed the various ways to improve competences for Natura 2000 such as live exchange, internet-exchange platforms, training multiple different audiences (e.g. students, politicians), interdisciplinarity (e.g. train foresters on conservation and vice versa).

Several participants underlined the importance of setting up intersectoral networks and communities, as this would facilitate the integration of biodiversity protection in other sectors. Also, the rapid development of online learning due to the Covid-19 pandemic and its benefits (e.g. more participants, equal opportunities) were discussed. However, it was also acknowledged that face-to-face training and practical training in the field remain important.

A variety of challenges and areas for future work for capacity building were identified, such as:

- Standardise/harmonise approaches at regional level, i.e. consensus on needs and ways paves the road to a clear communication.
- Cross-scale capacity building (how to ensure that national programmes address regional needs and vice versa).
- Long-term programmes needed for capacity building, based on the incorporation of capacity building in institutions through regular time and funding dedicated to it.
- Blended training mode (online does not always work and is not for everyone) helps adaption to new tools.
- It is important to work and communicate with other sectors (mainstreaming), and joint training programmes might assist in this as people can learn each other's views.

Two issues were suggested for further discussion in plenary. These were:

- How to disseminate know how and lessons learnt in capacity building for Natura 2000 site management across biogeographical regions?
- How do we ensure that institutions include capacity building for skills and competences other than scientific ones required for the management of Natura 2000 sites in their strategies?

4. Knowledge Market

As a preamble to the knowledge market, **Chiara Spotorno** (NEEMO) provided an overview of the LIFE projects in the Mediterranean biogeographical region. Since LIFE was launched in 1992, more than 300 LIFE-NAT projects have been funded in the Mediterranean region. At present there are 150 LIFE-NAT projects running across the EU, of which 30 are the Mediterranean region.

In April 2021, the European Parliament officially approved the Multiannual Financial Framework of LIFE 2021-2027, with a total budget of €5.4 billion, 60% more than in the previous period. Of this, €3.5 will go to environmental activities, including LIFE-NAT, and the rest to climate action.

The key achievements of the LIFE programme referred by Chiara Spotorno were:

- the crucial role in the designation of marine and terrestrial Natura 2000 sites,
- the purchase of thousands of hectares of Europe's most rare and endangered habitat types,
- the recovery of endangered bird species populations; namely birds of prey,
- the added value to transnational conservation approaches,
- the support of practical measures to prevent and control invasive alien species,
- the support to the transition towards a more sustainable agriculture, forestry and fisheries,
- the help towards a long-overdue restoration.

Furthermore, LIFE has contributed to the reported improved conservation status of EU protected species and habitats. Chiara highlighted some projects that have contributed significantly towards improving the conservation status of some species. She also suggested that a project designed to

restore specific habitats may also contribute to the restoration of ecosystem services, to biodiversity protection, to the development of green infrastructures and nature-based solutions and will promote a more sustainable agriculture or help designing broader management plans.

After this introductory presentation on LIFE, **Rui Rufino** (Mãe d'água, Portugal) introduced the Knowledge Market and provided some guidance to the participants. All LIFE projects approved between 2014 and 2019 were invited to participate and approximately half of those gave a positive reply. Therefore, the Knowledge Market had a total of 34 presentations that were split into four sessions, each divided in two rounds. The sessions were associated to Themes 1, 2 and 4 of the seminar; and one of the sessions was devoted to free themes (see programme at annex 2).

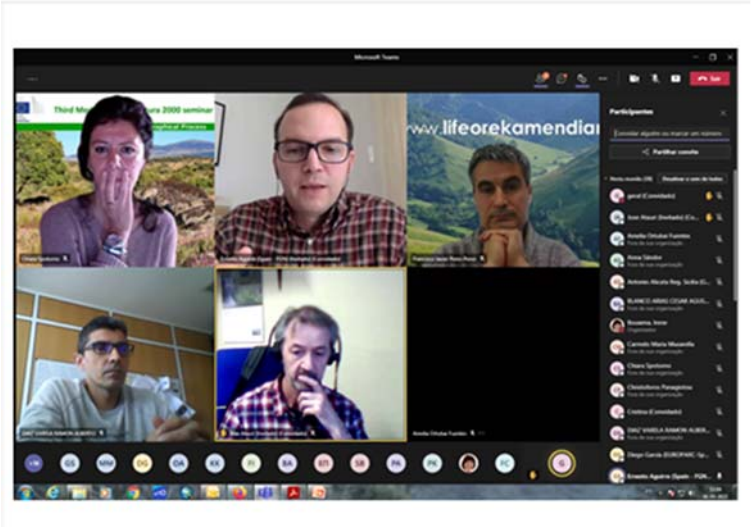


Figure 9: One of the sessions of the knowledge market.

Altogether, the project presentations covered a wide range of subjects providing an overview of what is underway in terms of conservation in the Mediterranean region, including:

- Conservation of habitats and species, both fauna and flora
- Habitat management and restoration
- Promotion of sustainable agriculture and forestry
- Developing new methodologies at all levels
- Implementing stakeholder networks
- Identifying financial solutions
- Looking for solutions to human-animal interactions
- Looking for governance solutions
- Involving citizens in conservation monitoring
- Looking for solutions to reduce mortality of protected species
- Protecting key species such as pollinators
- Promoting connectivity

The effort by many of the projects to get stakeholders actively involved in the objectives of the projects was particularly relevant, as well as the quality of the information gathered by several projects. More than 100 people attended the knowledge market opening session, and an average of 20-30 people followed each session.

5. Concluding plenary session and following steps

On the final day, a film by Region Calabria on its astonishing landscapes and forests was shown just after the four reports on the thematic sessions.

5.1. Further elaboration of actions

The four chairs of the thematic sessions reported back on the outcome of discussions and each of them suggested two topics to be further elaborated on between participants with a view to planning for practical action:

- Topics linked to theme 1 on restoration:

1. How can we develop a coordinated biogeographical region level approach for the restoration of Mediterranean habitats and species that are widely distributed across the region?

All participants see the need for a coordinated effort to define a restoration agenda for the Mediterranean region. To this end, a steering group composed of representatives from all Member States should coordinate action and define criteria for the selection of habitats and species of a particular ecosystem type. Based on the selection, actions should be defined for restoration. The steering group would work across levels, from site to biogeographical level, define the sites and actions, coordinate activities and ensure good flow of information between Member States.

2. How can we cooperate to ensure funds are aimed at cross-border restoration projects?

To ensure such projects are funded, cooperation and coordination between national and regional levels have to be improved, and environmental, tourism, agricultural and other sectors need to be better integrated.

- Topics linked to theme 2 on conservation objectives:

3. How can we develop a biogeographical region level approach towards implementing coordinated conservation objectives for Mediterranean habitats and species that are widely distributed across the region?

Suggestions will be incorporated among priorities under the Natura 2000 biogeographical process and followed up in the cooperative work that the Spanish Ministry for the Ecological Transition and the Demographic Challenge intends to further develop.

4. How can we secure resources to set up monitoring systems where the results of measures are only expected to materialise in the long (or unknown) term?

It was proposed to develop a separate long-term funding tool (at EU or national level) to allocate funds for the monitoring of measures, and to review and consider the use of citizens science for monitoring.

- Topics linked to theme 3 on land abandonment:

5. How to ensure political support for the maintenance, restoration or development of biodiversity in areas or regions subject to land abandonment?

It was proposed to support the development of specific action plans at regional level in order to manage the process of land abandonment, with a view to conserve existing agricultural areas and rewild others in a more controlled manner.

6. How to ensure a good dissemination of technical knowledge and lessons learnt about the management and restoration of abandoned areas (either through rewilding or active management) in the Mediterranean region?

Several strategies were suggested such as involving the media to increase awareness of this silent process, developing layman reports for the general public, an internet forum with best practices; as well as communication strategies that target local and regional politicians.

- Topics linked to theme 4 on capacity building:

7. How to disseminate know how and lessons learnt in capacity building for Natura 2000 site management across biogeographical regions?

Participants recognised the added-value of field exchanges in this respect and suggested specific funding should be applied for (e.g. under the Erasmus and LIFE programmes) to develop such opportunities. They dismissed the prospect of setting up a new internet exchange platform and instead supported options allowing for better access to existing experience (cross-linking, or a page with links to past and ongoing programmes and projects).

8. How do we ensure that institutions include capacity building for skills and competencies other than the scientific ones required for the management of Natura 2000 sites in their strategies?

It is key to draw lessons from organisations that have already developed strategies and projects that have established best practice. It was noted that accessing the exemplary experience gathered under LIFE on capacity building is far from easy, and improving the search engine of the LIFE project database in this respect would help with scaling up efforts. Evaluating long-term results of capacity building initiatives and demonstrating the long-term added value of enhanced capacity for the efficient use of resources and the achievement of actual conservation targets are crucial to ensure sufficient and long-term allocation of resources to develop this type of skills. In certain contexts, an official recognition of the profession of Natura 2000 site managers might ease the leverage of funding for capacity building.

5.2. Closing remarks

Nicola Notaro, Head of the Nature Protection Unit in DG ENV, concluded the seminar with perspectives for the Natura 2000 biogeographical process. The process will both keep a focus on the exchange of experiences and the development of cooperative action, and it will also become a forum for Member States to discuss their pledges for delivering on the EU Biodiversity Strategy for 2030. This strategic discussion will provide coherence on restoration targets and protected area targets at a biogeographical level.

Nicola finally gave a final comment of thanks to participants, speakers, chairs and the organising team and, in particular, to Sila National park and the Calabria Region for their support of the new online meeting format and the preparation of the movies.

Maurizio Battegazzore, Director of Division III - Biodiversity, Flora and Fauna, CITES within General Direction for Natural Heritage of the Italian Ministry of the Ecological Transition, thanked all participants for their attendance. He underlined that the Mediterranean region is rich in nature, particularly due to the high number of endemic species, but that the region has an important challenge ahead to implement the EU Biodiversity Strategy - not only for nature but also for people in the region and for the preservation of cultural traditions.

All presentations from the Seminar are available on the Natura 2000 biogeographical process webpage or at the Working together for Natura 2000 wiki.

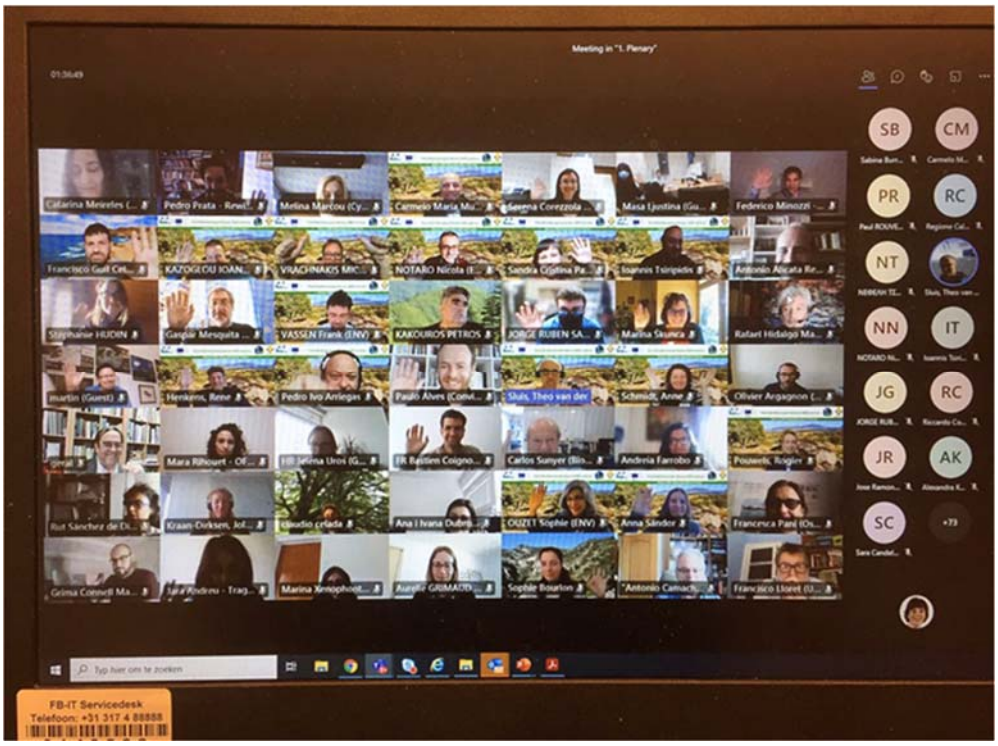


Figure 10: Group picture at the closing session

6. Additional information: development of the roadmap

The roadmap of the Mediterranean region comprise a series of actions which would address the need for knowledge exchange on the key issues already identified. For some of these actions, the roadmap identifies possible lead bodies and a target timetable. In some cases a lead has been offered, in others a lead will be proposed by the European Commission through the biogeographical process, and in others there are suggested lead bodies.

The roadmap acts as an “aide-mémoire” to put on record the key issues that have been discussed by practitioners over the last decade, and as a stimulus for new activities that could be included in, e.g. LIFE projects, cooperation between research bodies, or in funding through Member State conservation bodies.

The roadmap has been developed for the Mediterranean biogeographic region and the biogeographic process led by the European Commission. The Habitats Directive requires Member States within each biogeographic region to work together to achieve favourable conservation status at the biogeographic level. However, the ambition of a European Network is to share experience across all biogeographic regions. Moreover, through LIFE projects there is a ‘family’ of European projects where networking, transfer of knowledge, replication of success and sharing of good practice is built into project design. These projects are encouraged to use available resources from the Natura 2000 platform and actively participate in the Natura 2000 network events, and sometimes the biogeographical seminars.

ANNEXES

Annex 1 – Programme of the seminar

Monday 3 May 2021

Time	Test Session	
11:00-13:00	Testing of MS-TEAMS for participants;	Organisers

Tuesday 4 May 2021

Plenary session (Chair: Sophie Ouzet, DG ENV)		
Time	**Session, topics and speakers**	**Chair/Speaker**
9:00-9:15	Opening and welcome Introduction round of main speakers, and supporting team	Micheal O'Briain, Deputy Head of the Nature Protection Unit, DG ENV
9:15-9:40	Opening address • Calabria Region • Sila National Park • Ministry of Ecological Transition of Italy • European Commission	• Sergio De Caprio, regional Counsellor of Environment of Calabria • Francesco Curcio, President of Sila National Park • Antonio Maturani, General Director of Natural Heritage at the Italian Ministry of Ecological Transition • Humberto Delgado Rosa, Director for Natural Capital, DG ENV
9:40-10:00	The EU's biodiversity strategy for 2030 and the multi-annual financial framework 2021-2027 The use of EU funds for the protection of biodiversity in Calabria	• Frank Vassen, DG ENV • Maurizio Nicolai, EU Funds Management Authority Region Calabria
10:00-10:15	Video, Natura 2000 in Calabria	• Maria Prigoliti, Environmental Protection Department - Calabria Region
10:15-10:30	The situation of species and habitats in the Mediterranean region based on the Habitats Directive Article 17 reporting	• Laura Patricia Gavilán, ETC-BD

Plenary session (Chair: Micheal O'Briain, Deputy Head of the Nature Protection Unit, DG ENV)		
Time	**Session, topics and speakers**	**Chair/Speaker**
10:30-10:50	Perspectives for the Natura 2000 biogeographical process. Harmonisation of procedures for monitoring, assessment and conservation of Habitats of Community Interest.	• Sophie Ouzet, DG ENV • Rafael Hidalgo, Spanish Ministry of Ecological Transition and Demographic Challenge
10:50-11:00	Explanation of the organisation of parallel thematic sessions.	Organisers
11:00-11:15	**Coffee break** **Opening online channels** for participants to test access to thematic sessions 1 and 4.	

Tuesday 4 May 2021 (continued)

Parallel thematic sessions		
Time	**Session, topics and speakers**	**Session, topics and speakers**
11:00 - 13.00	**Theme 1: Defining and coordinating a Natura 2000 restoration agenda in the Mediterranean region.** How to decide on priorities and implement restoration activities in the Mediterranean region? Chair: Ioannis Tsiripidis Facilitator: Theo van der Sluis Presenters: • Zelmira Sipkova-Gaudillat (ETC-BD): Restoration priorities in the Mediterranean region. • Jordi Cortina (Society for Ecological Restoration): Tools to support habitat restoration in Europe. Breakout sessions 1	**Theme 4. Building capacity for Natura 2000 management** How to improve the Natura 2000 management through capacity building? Chair: Sabina Burrascano Facilitator: Irene Bouwma Presenters: • Mara Rihouet (Office Français de la Biodiversité, OFB) • Neil McIntosh (Europarc Federation): New approaches in competence-based capacity building for the management of Natura 2000 Breakout sessions 1

Wednesday 5 May 2021

Parallel thematic sessions		
Time	**Sessions, topics and speakers**	**Session, topics and speakers**
09:00-11:00	**Theme 2: Defining conservation objectives at site level and monitoring impact of measures.** How to establish conservation objectives and monitor the impact of measures at site level? Chair: Carmelo Maria Musarella Facilitator: Jorge Capelo Presenters: • Frank Vassen (DG ENV): Introduction on conservation objectives. • Francesca Pani (Mettiamoci in RIGA project): Definition of conservation objectives for achieving the favorable conservation status of habitats and directive species in Italy. • Pedro Ivo Arriegas (ICNF): Management plans for Natura 2000 sites (Habitats Directive): the process in mainland Portugal. Breakout sessions 1	**Theme 3. Addressing land abandonment in the Mediterranean region.** How to manage land abandonment for addressing EU nature conservation objectives? Chairs: Michael Vrahnakis / Yannis Kazoglou Facilitator: Carlos Sunyer Presenters: • Carolina Perpiña (JRC) & Stephen Mackenzie Bell (University of Barcelona): Agricultural land abandonment in the Mediterranean region: trends, trajectories, and the implications for soil health. • Teresa Pinto-Correia (Univ. Evora): Supporting HNV montados, using result-based payments. • Carlotta Maggio (WWF – Italy): Presentation: Conserving High Natural Value Farmlands in WWF protected areas. • Directive): the process in mainland Portugal. Breakout sessions 1
11:00-11:15	Coffee break	

Time	Sessions, topics and speakers	Session, topics and speakers
11:15- 13:00	**Theme 1 [continued]: Defining and coordinating a Natura 2000 restoration agenda in the Mediterranean region.** How to decide on priorities and implement restoration activities in the Mediterranean region? Chair: Ioannis Tsiripidis Facilitator: Theo van der Sluis Presenters: • Alessio Satta (MedWet): Protection, management and restoration of Mediterranean wetlands as Nature-based solutions to address environmental and climate changes. • Aljoša Duplić (Institute for Environment and Nature): Restoration priorities in Croatia. Breakout sessions 2	**Theme 4 [continued]: Building capacity for Natura 2000 management.** How to improve the Natura 2000 management through capacity building? Chair: Sabina Burrascano Facilitator: Irene Bouwma Presenters: • Sabina Burrascano (Univ. Roma Sapienza): Introduction, COSTS Action Bottoms-up, building capacity for Natura 2000 foresters. • Serena Corezzola (LIFE GoProFor): Capacity building for European foresters. Breakout sessions 2

Thursday 6 May 2021

Parallel thematic sessions		
Time	**Session, topics and speakers**	**Session, topics and speakers**
09.00 - 10.30	**Theme 2 [continued]. Defining conservation objectives at site level and monitoring impact of measures** How to establish conservation objectives and monitor the impact of measures at site level? Chair: Carmelo Maria Musarella Facilitator: Jorge Capelo Presenters: • Piero Genovesi (ISPRA): Standardized procedures for monitoring and reporting in Italy. • Giovanni Spampinato (Univ. Mediterranean Studies Reggio Calabria): Monitoring of habitats in Calabria. • Paul Rouveyrol (UMS Patrinat OFB/CNRS/MNHN): Assessing the efficiency of conservation measures in Natura 2000 sites. Breakout sessions 2	**Theme 3 [continued]: Addressing land abandonment in the Mediterranean region.** How to manage land abandonment for addressing EU nature conservation objectives? Chair: Michael Vrahnakis / Yannis Kazoglou Facilitator: Carlos Sunyer Presenters: • Veronica Cruz-Alonso (Harvard University, Graduate School of Design): Restoring forests after land abandonment. • Giuseppe Bombino (Univ. Mediterranean Studies Reggio Calabria): Measures for mitigation of fires. • Pedro Prata (Rewilding Europe): Solutions: rewilding the Greater Côa Valley. • Jóni Vieira (Montis): Giving nature a hand. Breakout sessions 2
10:30-10:45	Coffee break	

Plenary session (Chair: Sophie Ouzet, DG ENV)		
Time	**Session, topics and speakers**	**Chair/Speaker**
10:45- 10:55	The LIFE projects in the Mediterranean biogeographical region	Chiara Spotorno (NEEMO)
10:55 – 11:00	Introduction on the organisation of the knowledge market	Rui Rufino (Mae d'Agua)
11:00- 13:00	**Knowledge market**: parallel sessions organised around the themes of the seminar.	

Friday 7 May September 2021

Plenary session (Chair: Nicola Notaro, Head of the Nature Protection Unit, DG ENV)		
Time	**Session, topics and speakers**	**Speaker/Chair**
09:00 – 9:50	Closing session: feedback on the discussions and actions defined during the four parallel thematic sessions.	Chairs from the 4 sessions
09:50 – 10:00	Introduction to carousel rounds	Theo van der Sluis (WUR)
10:00-10:30	Planning for action – Carousel Round I	Organisers
10:30-10:45	Coffee break	
10:45- 11:15	Planning for Action – Carrousel Round II and III	Organisers
11:15 – 11:45	Report back – Carousel, perspectives for next steps for the Natura 2000 biogeographical process and the road map for cooperation in the Mediterranean region	Carousel reporters
11:45 – 12:00	Video highlights from the Mediterranean seminar	Kristina Wood (Nature Bureau)
12:00- 13:00	Conclusions and closure of the seminar	Nicola Notaro (Head of the Nature protection Unit, DGENV) Maurizio Battegazzore (Dir. Division III Biodiversity, flora and fauna, Italian Ministry of Ecological Transition)

Annex 2 – Programme of the knowledge market[7]

Table & Round	Theme	Time	Title	Presenter
T1.R1	1	11.00 - 11.45	LIFE BACCATA. Conservation and restoration of Mediterranean *Taxus baccata* woods (9580*) in the Cantabrian Mountains (Northern Spain)	Javier Ferreiro, IBADER – Universidade de Santiago de Compostela
T1.R1	1	11.00 - 11.45	LIFE Paludicola. Mediterranean wetlands restoration which favours the migration of the Aquatic Warbler (*Acrocephalus paludicola*) in the Iberian Peninsula	Eugenio de las Heras Martín, Fundación Global Nature
T1.R1	1	11.00 - 11.45	LIFE Cañadas. Restoration of drove roads to enhance biodiversity and connectivity of Natura 2000 sites in Spain	José A. González, Ecology Department. Universidad Autónoma de Madrid
T1.R1	1	11.00 - 11.45	LIFE PRIMED. Restoration, management and valorisation of priority habitats of Mediterranean coastal areas	Vito Emanuele Cambria, Project Manager
T1.R2	1	12.00 - 13.00	LIFE GRECABAT. Greek Caves and Bats: Management Actions and Change of Attitude	Georgios Papamichail, ATEPE Ecosystem Management Ltd
T1.R2	1	12.00 - 13.00	LIFE CalMarSi. Restoring and improving biodiversity in coastal habitats: reintroduction of *Calendula maritima* Guss. (Sicily, Italy)	Giuseppe Garfì, CNR – Institute of Biosciences and BioResources, Palermo
T1.R2	1	12.00 - 13.00	ROC-POP LIFE. Promoting biodiversity enhancement by Restoration of *Cystoseira* Populations	Saul Ciriaco, WWF Area Marina Protetta di Miramare
T1.R2	1	12.00 - 13.00	LIFE Ilhas Barreira. Conserving the Barrier Islands in Algarve (south Portugal) to protect priority species and habitats	Joana Andrade (project coordinator), SPEA/BirdLife partner
T2.R1	2	11.00 - 11.45	LIFE RedBosques. Identification and protection of old growth forests in the Mediterranean Region	José Antonio Atauri, FUNGOBE / EUROPARC-Spain
T2.R1	2	11.00 - 11.45	LIFE Steppe Farming. Sustainable farming in SPAs of Castilla la Mancha for Steppe bird's conservation	Ernesto Aguirre, Fundación Global Nature
T2.R1	2	11.00 - 11.45	LIFE Oreka Mendian. Conservation and management of Grassland Habitats in the Basque Country	Javier Pérez, HAZI Foundation
T2.R1	2	11.00 - 11.45	LIFE in Common Land. Conservation and Rural Development in the Uplands of NW Spain	Ramón Alberto Díaz Varela, University of Santiago de Compostela
T2.R2	2	12.00 - 13.00	Corsican Nuthatch. A better taking account of the Corsican	Office Nationat des Forêts
T2.R2	2	12.00 - 13.00	LIFE Lagoon Refresh. Coastal lagoon habitat (1150*) and species recovery in Venice Lagoon by increasing the freshwater input and restoring the salt gradient	Rossella Boscolo Brusà, ISPRA - Institute for Environmental Protection and Research
T2.R2	2	12.00 - 13.00	LIFE FALKON. fostering climate-change resilience in the northern populations of Lesser Kestrel	Michelangelo Morganti, CNR-IRSA National Research Council of Italy – Water Research Institute
T2.R2	2	12.00 - 13.00	The Leisler's bat in Corsica. Current state of knowledge and prospects	Kate Derrick, Groupe Chiroptères Corse (Corsican Bat Group)
T2.R2		12.00 - 13.00	Video - Ciclovia of the parks in Calabria: example of sustainable tourism in areas of naturalistic interest	Giovanni Aramini Dr. Maria Prigoliti, Regione Calabria
T3.R1	4	11.00 - 11.45	LIFE ARCPROM. Improving human-bear coexistence in 4 National Parks of South Europe	Spyros Psaroudas, Project Manager
T3.R1	4	11.00 - 11.45	Amphibian conservation and habitat restoration: example of replicability of a LIFE project for halting the decline of the Apennine yellow-bellied toad in a Natura2000 site in southern Italy	Ilaria Bernabò, Regione Calabria

[7] Access to the presentations

T3.R1	4	11.00 - 11.45	Implementation of a habitat and species monitoring project in the Calabria Region	Maria Prigoliti, Regione Calabria
T3.R1	4	11.00 - 11.45	Forestlife. Information and governance tools for forest conservation and restoration in Natura 2000 sites in Greece	Petros Kakouros, project coordinator, Greek Biotope/Wetland Centre
T3.R2	Free Topic	12.00 - 13.00	LIFE Oso Courel. Living in Natura 2000 and living with bears in two small and endangered subpopulations	Carolina Rueda, Fundación Oso Pardo (FOP)
T3.R2	Free Topic	12.00 - 13.00	Dinara back to LIFE. Management planning and restoration of Dinara dry grasslands to save biodiversity and support sustainable development	Tomislav Hudina, project leader / Zdravko Budimir, project coordinator
T3.R2	Free Topic	12.00 - 13.00	LIFE Net pro Net. Network of volunteers for IBA and Natura 2000 monitoring, network of volunteers for IBA and Natura 2000 monitoring	Giovanni Soldato, Lipu – BirdLife Italy
T3.R2	Free Topic	12.00 - 13.00	The LIFE SAFE-CROSSING. Actions to reduce the impact of linear infrastructures on protected species	Annette Mertens, Agristudio S.r.l.
T4.R1	Free Topic	11.00 - 11.45	LIFE WolFLux. Decreasing socio-ecological barriers to connectivity for wolves south of the Douro River	Pedro Prata, Rewilding Portugal
T4.R1	Free Topic	11.00 - 11.45	LIFE Brenta 2030. integrated efforts for the conservation of the strongly modified Brenta river in northeast Italy	Simone Iacopino, Università degli Studi di Padova
T4.R1	Free Topic	11.00 - 11.45	LIFE-Salinas. Conservation actions in salt marshes and recovery of coastal dunes Project (Murcia-Spain)	Gustavo Ballesteros Pelegrín, Salinera Española
T4.R1	Free Topic	11.00 - 11.45	LIFE LANNER. Urgent conservation actions for Lanner* falcon (*Falco biarmicus feldeggii*)	Stefano Picchi, project manager, Vico Lake Nature Reserve
T2.R2	2	12.00 - 13.00	LIFE VISON, presentation and first outcomes	Ingrid Marchand, LPO France
T4.R2	Free Topic	12.00 - 13.00	LIFE SEPOSSO. Good governance and best practices for an effective and sustainable restoration of *Posidonia oceanica* meadows	Barbara La Porta and Tiziano Bacci, ISPRA "Istituto Superiore per la Protezione e la Ricerca Ambientale"
T4.R2	Free Topic	12.00 - 13.00	LIFE 4 POLLINATORS - Involving people to protect wild bees and other pollinators in the Mediterranean	Marta Galloni, Università di Bologna

Annex 3 – List of Participants[8].

Sort by country & last name

Fist Name	Second Name	Organisation	Country
John	Condon	ClientEarth	Belgium
Sabrina	Dietz	FACE	Belgium
Sofie	Ruysschaert	Birdlife Europe and Central Asia	Belgium
Maja	Vasilijevic	NEEMO	Belgium
Tatjana	Ćaćić	Institute for Environment and Nature, Ministry of Economy and Sustainable Development	Croatia
Aljoša	Duplić	Institute for Environment and Nature, Ministry of Economy and Sustainable Development	Croatia
Karla	Fabrio Čubrić	Ministry of Economy and Sustainable Development	Croatia
Irena	Juric	"Priroda" (Public institution)	Croatia
Marijana	Kapa	Ministry of Economy and Sustainable Development	Croatia
Masa	Ljustina	Institute for Environment and Nature, Ministry of Economy and Sustainable Development	Croatia
Jelena	Uroš	Ministry of economy and sustainable development	Croatia
Vasiliki	Anastasi	BirdLife Cyprus	Cyprus
Martin	Hellicar	BirdLife Cyprus	Cyprus
Konstantinos	Iosif	Department of Forests	Cyprus
Melina	Marcou	Department of Fisheries and Marine Research	Cyprus
Christoforos	Panagiotou	Terra Cypria-the Cyprus Conservation Foundation	Cyprus
Lefkios	Sergides	Terra Cypria the Cyprus Conservation Foundation	Cyprus
Marina	Xenophontos	Department of Environment	Cyprus
Despo	Zavrou	Department of Environment	Cyprus
Simona	Bacchereti	CINEA LIFE Unit, European Commission	EU
Sylvia	Barova	CINEA LIFE Unit, European Commission	EU
Annemarie	Bastrup-Birk	European Environment Agency	EU
Aurélien	Carré	European Environment Agency	EU
Marco	Cipriani	DG Environment, European Commission	EU
Jeremie	Crespin	DG Environment, European Commission	EU
Anna	Cheilari	DG Environment, European Commission	EU
Humberto	Delgado Rosa	DG Environment, European Commission	EU
Spyridon	Flevaris	DG Environment, European Commission	EU
Zelmira	Gaudillat	ETC on Biological Diversity	EU
Laura	Gavilan	ETC on Biological Diversity	EU
Mette	Lund	European Environment Agency	EU
Nicola	Notaro	DG Environment, European Commission	EU
Micheál	O'Briain	DG Environment, European Commission	EU
Manuela	Osmi	CINEA, European Commission	EU
Sophie	Ouzet	DG Environment, European Commission	EU
Luisa	Samarelli	DG Environment, European Commission	EU
Thysia	Tchekouteff	DG Environment, European Commission	EU
Frank	Vassen	DG Environment, European Commission	EU
Eleni	Tryfon	European Environment Agency	EU
Olivier	Argagnon	Conservatoire Botanique National Méditerranéen de Porquerolles	France
Sophie	Bourlon	Parc Naturel Régional du Luberon	France
Bastien	Coignon	Ministère de la Transition Ecologique	France
Kate	Derrick	Groupe Chiroptères Corse	France
Laurent	Germain	Office Francais de la Biodiversité / French Biodiversity Agency	France

[8] Due to the privacy policy, eight people have been excluded at their own free will.

Aurelie	Grimaud	Ministère de la Transition Ecologique/DGALN/DEB/ET5	France
Sandra	Guy	Office National des Forêts	France
Laetitia	Hugot	Conservatoire Botanique de Corse	France
Isabelle	Mandon	Direction régionale de l'environnement, de l'aménagement et du lodgement	France
Mara	Rihouet	Office francais de la biodiversité / French Biodiversity Agency	France
Paul	Rouveyrol	UMS PatriNat (OFB/MNHN/CNRS)	France
Fabrice	Torre	Direction régionale de l'environnement, de l'aménagement et du lodgement	France
Bruna	Campos	EuroNatur Foundation	Germany
Neil	McIntosh	EUROPARC Federation	Germany
Federico	Minozzi	EUROPARC	Germany
Alexandra	Kavvadia	Ministry of Energy and Environment	Greece
Yannis	Kazoglou	University of Thessaly	Greece
Panos	Kordopatis	Hellenic Ornithological Society/ BirdLife Greece	Greece
Katerina	Koutsovoulou	Green Fund	Greece
Yorgos	Melissourgos	WWF Greece	Greece
Evangelos	Paravas	iSea	Greece
Dimitra	Petza	National Environment and Climate Change Agency - NECCA	Greece
Ioannis	Tsiripidis	Aristotle University of Thessaloniki	Greece
Michael	Vrahnakis	Dept. of Forestry, Wood Sciences & Design, University of Thessaly	Greece
Annamaria	Alessio	SIla National Park	Italy
Ilaria	Bernabò	Regione Calabria Department Environment and Territory	Italy
Liliana	Bernardo	Dipartimento DIBEST - University of Calabria	Italy
Agostino	Brusco	Regional natural reserves of "Lago di Tarsia - Foce del fiume Crati"	Italy
Sabina	Burrascano	Sapienza University of Rome	Italy
Rosy	Cannata	SIla National Park	Italy
Barbara	Carelli	SIla National Park	Italy
Luciana	Carotenuto	Regione Lazio (Italy) - Directorate for Natural Capital and Protected Areas	Italy
Claudio	Celada	Lipu-BirdLife Italy	Italy
Domenico	Cerminara	Ente Parco Nazionale della Sila	Italy
Serena	Ciabò	Abruzzo Region	Italy
Riccardo	Copiz	Sogesid spa - Ministry of Ecological Transition	Italy
Serena	Corezzola	D.R.E.AM. ITALIA	Italy
Gabriele	de Filippo	Istituto di Gestione della Fauna	Italy
Giorgia	Gaibani	Lipu-BirdLife Italy	Italy
Carmen	Gangale	Museo di Storia Naturale ed Orto Botanico - Università della Calabria	Italy
Piero	Genovesi	ISPRA	Italy
Valentina L. A.	Laface	Mediterranean University of Reggio Calabria	Italy
Simona	Lo Bianco	FAI - Fondo Ambiente Italiano	Italy
Antonella	Logiurato	Basilicata Region	Italy
Giuseppe	Luzzi	Ente Parco Nazionale della Sila	Italy
Carlotta	Maggio	WWF Italy	Italy
Vittoria	Marchiano	Parco Nazionale del Pollino	Italy
Carmelo Maria	Musarella	Università Mediterranea di Reggio Calabria	Italy
Giorgio	Occhipinti	Regional administration - Environment	Italy
Vito	Orlando	Ufficio Parchi Biodiversità, Tutela della Natura	Italy
Fabiana	Panchetti	Sogesid Spa - MiTE	Italy
Francesca	Pani	Mettiamoci in RIGA Project, Sogesid spa	Italy
Maria	Prigoliti	Environmental Protection Department - Calabria Region	Italy
Antonia	Prosperati	Ente Parco Nazionale della Sila	Italy
Enrica	Riera	Sila National Park	Italy
Annalisa	Santangelo	Department of Biology. University of Naples	Italy
Giovanni	Spampinato	Mediterranean University of Reggio Calabria	Italy

Chiara	Spotorno	NEEMO-Timesis	Italy
Sandro	Strumia	DiSTABiF Univ.della Campania L.Vanvitelli	Italy
Sandro	Tripepi	Calabria University	Italy
Marta	Curmi	Environment & Resources Authority	Malta
Lara	Galea	Environment & Resources Authority	Malta
Matthew	Grima Connell	Environment & Resources Authority	Malta
Stephen	Saliba	ERA Malta	Malta
Marina	Škunca	Eurosite	Netherlands
Carlos	Aguiar	Terra Maronesa, Comunidade Prática para o Desenvolvimento Sustentável	Portugal
Paulo	Alves	Floradata	Portugal
Pedro Ivo	Arriegas	ICNF-Instituto da Conservação da Natureza e das Florestas	Portugal
Andreia	Farrobo	ICNF-Instituto da Conservação da Natureza e das Florestas	Portugal
Catarina	Meireles	University of Évora	Portugal
Teresa	Pinto-Correia	MED - University of Évora	Portugal
Jóni	Vieira	MONTIS	Portugal
Alessio	Satta	MedWet	Slovak Republic
Jara	Andreu	Tragsatec	Spain
Stephen	Bell	Institute of Env. Science & Technology, Univ. Autònoma Barcelona	Spain
Javier	Cabello	University of Almería	Spain
Antonio	Camacho	University of Valencia	Spain
Sara	Candela	Tragsatec	Spain
Jordi	Cortina Segarra	University of Alicante	Spain
Verónica	Cruz Alonso	Harvard University	Spain
Soledad	Gallego	ClientEarth	Spain
Diego	García Ventura	Fundación Fernando González Bernáldez/EUROPARC-Spain	Spain
Francisco	Guiñ	Ministry for the Ecological Transition and the Demographic Challenge	Spain
Francisco	Lloret	CREAF-Universitat Autonoma Barcelona	Spain
Daniel	Morant	University of Valencia	Spain
Concha	Olmeda	ATECMA	Spain
José Ramón	Picatoste Ruggeroni	Spanish Ministry of Ecological Transition and Demographic Challenge	Spain
Rut	Sánchez de Dios	University Complutense of Madrid	Spain
Jorge R.	Sánchez-González	SIBIC/Universitat de Lleida	Spain

Team members

First Name	Last Name	Organisation	Country
Irene	Bouwma	Wageningen Research	Netherlands
Jorge	Capelo	Mae d'Agua	Portugal
Rene	Henkens	Wageningen Research	Netherlands
Katia	Hueso	Terra Ecogest	Spain
Jolanda	Kraan	Wageningen Research	Netherlands
Sandra	Mesquita	Mae d'Agua	Portugal
Rogier	Pouwels	Wageningen Research	Netherlands
Rui	Rufino	Mae d'Agua	Portugal
Anna	Sándor	Ceeweb	Hungary
Anne	Schmidt	Wageningen Research	Netherlands
Carlos	Sunyer	Terra Ecogest	Spain
Theo	Van der Sluis	Wageningen Research	Netherlands

Annex 4 – Seminar evaluation (summary)

During the last plenary session, an evaluation survey was carried out which was answered by 52 participants (response rate 38% of the total attendants). In the evaluation the delegates could indicate a score from 1-5 for various parts of the seminar. In the table below the average scores are given:

Issue	Average score (best score 5/5)
How did you value the seminar?	
Content of presentations	4,3
Organisation of the seminar	4,7
Quality of the discussions	4,4
What is your opinion on the breakout groups?	
We could change experiences	4,3
We could frame joint actions	3,2
An opportunity for networking	3,7
In provided new insights	4,2

Participants were also asked to provide an open feedback on what could be better and how can we improve? 39 answers were received, some of them including different issues, which have been grouped under the following topics:

Issue	Number of people reporting it
Only face to face can be better	13
Breakout groups - more time for discussion - more concrete and structured - have the questions before	12
Background information - bibliography, links to websites and projects - earlier dissemination of the programme - list of participants/organisations	6
Content - Reduce time for presentations vs breakout groups - More practical and success examples - More targeted presentations	5
Enlarge participation to externals - Site managers - More officials from Ministry of Environment and Agriculture - Journalists and other people	5
Common approaches - Time for coordination of common approaches - Formulate concrete actions (Road map)	4
Free chat vs platform for questions	2
More work on harmonisation and other basic issues	2
More communication between MS	1