



NATURA 2000 Management in European State Forests



MANAGING STATE
FORESTS RESPONSIBLY

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Kremstal, Austria (photo: Franz Kovacs)

EXECUTIVE SUMMARY

Member States of Natura 2000 are responsible for the implementation of both the Birds Directive and the Habitats Directive at national level through the enforcement of their national laws. This can result in legal and organisational consequences to State Forest Management Organisations (SFMOs), who are obliged to follow national law. SFMOs

are not only responsible for a high percentage of forests within the EU but also manage a higher than average percentage of Natura 2000 sites. This booklet gives those involved in the day-to-day workings of Natura 2000 the chance to have their say.

While SFMOs regard Natura 2000 as an inherent part of their managerial functions, it is important to note that environmental protection is just one of the many responsibilities of SFMOs. Other equally important functions are the sustainable management of the entrusted property, the provision of recreational facilities, and supplying the domestic and European timber industry.

We address the legislative and European context of Natura 2000. We believe in the importance of aligning different opinions and we are grateful that the European Commission has expressed its readiness to voice its own perspective. A questionnaire study of 26 EUSTAFOR SFMOs showed a good level of involvement, particularly in the early phase of implementation. The European Commission's proposed next steps clearly show the importance of involving forest managers with local responsibility in future implementation.

However, the EU legal framework contains several undefined terms, many of which have been outlined by court decisions. It makes Natura 2000 an increasingly restrictive system which could discourage Member States and citizens from implementing Natura 2000. This booklet gives an overview of SFMO-related Natura 2000 activities, as well as other nature conservation measures and activities, including a focus on costs and funding.

We discuss the issue of balancing forest management with nature conservation when establishing management plans. We then use case studies to demonstrate the various experiences and types of activity of SFMOs in Natura 2000 habitat and species management. A key factor for best practices management is the availability of competent local staff, which enabled the development of knowledge and skills in environmental protection and sustainable forest management long before Natura 2000.

However, active implementation of Natura 2000 by SFMOs is likely to progress at different rates, one for state-owned land and another for privately-owned land, regardless of which types of habitats and species require protection. As some of the case studies show, this makes it necessary from the point of view of forest managers to develop equal, coherent and legally enforceable conditions on a European, but more importantly on a national, level.

Twenty years on from the publication of the Habitats Directive, favourable conservation status for habitats and species is still not completely achieved. But it is still too early to come to a reliable conclusion of success or failure. Even the EU report of 2007 that was used for the scoping document on Natura 2000 and forests (EU-Commission 2012) contains some predictions and estimations, not just scientifically measured data. In particular, methods used to gather data on habitats and species need further development. It is expected that the EU report in 2013 will deliver more reliable data. However, realistically, we cannot expect reliable data on the conservation status of habitats and species before the next EU report is published sometime in 2019.

There is still a long way to go. SFMOs, with their 300 years of experience in sustainable forest management and forest inventory, have much to contribute to Natura 2000 and to help the network become a success story.

1. INTRODUCTION



Forest landscape, Bosnia and Herzegovina
(photo: ŠGD Hercegbosanske Šume)

State Forest Management Organisations (SFMOs) are organisational bodies that are responsible for a range of objectives concerning the management of natural resources, mainly forests.

The organisations under the umbrella of the European State Forest Association (EUSTAFOR) manage approximately $\frac{1}{3}$ of the total forested area of the European Union.

Management of this forested area involves fulfilling a range of economic, ecological and social objectives as well as ensuring active forest management that generates multiple benefits. Each management decision needs careful consideration with a full cost-benefit analysis.

Restrictive forest acts are in place to guarantee the sustainable use of timber and forest ecosystems which are designed to maintain these natural resources for the long term in order to meet the expectations and needs of all those who benefit from forests and their management.

Thus a critical decision needs to be made: Should forests be left without any human intervention or should they be managed in order to deliver the above mentioned benefits?

The common view is that the active use of forests benefits both the owner and society. Therefore, when following an integrative approach, SFMOs are well-positioned to combine economic, protective and recreational benefits within their active forest management programs.

Consequently, how the political, legislative and administrative frameworks are set up is important to SFMOs, as well as whether they are equipped to achieve a range of objectives.

Often the perception of policy development processes strongly influences the organisations' and sector's approach to any of these processes.

There is no common forest and forestry management policy within the European Union. Therefore, all forestry-related policies (such as the renewable

energy policy, climate change, nature conservation, competition, etc.) may directly influence individuals and organisations.

Policies can be operated in isolation, without requiring any contribution to the development of policy frameworks. Such was the case for the Natura 2000 process, which was strongly objected to by forest owners and forest managers (both public and private). Foresters had already met the nature conservation objectives, the implementation of measures, the management of High Conservation Value areas, the protection of endangered species and habitats before Natura 2000 was ever launched.

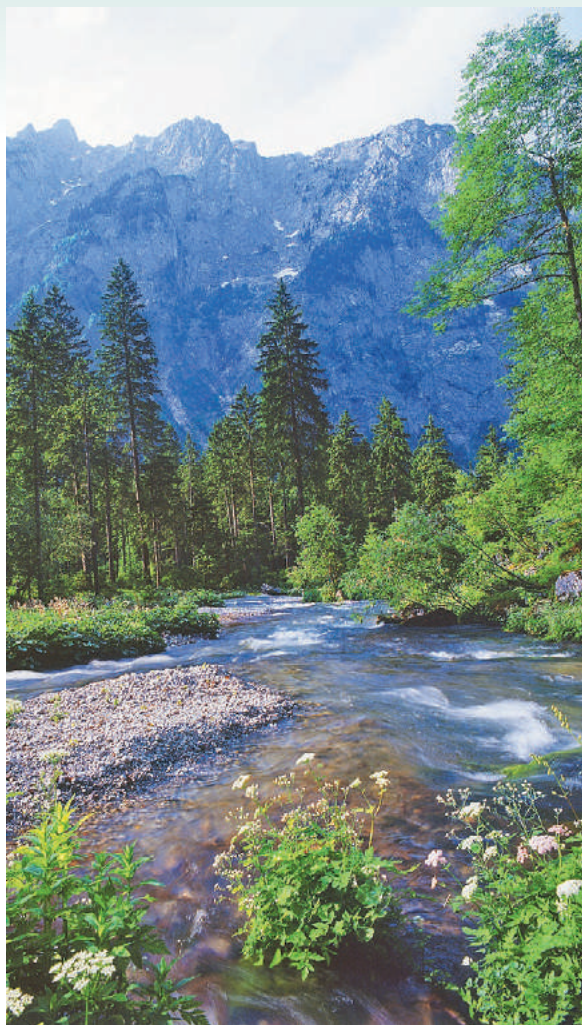
There is, however, evidence that the Natura 2000 process was used by different interest groups to criticize any human influence on forest ecosystems in general and, more specifically, active forest management, including profiting from the sale of timber. Conflicts resulting from misunderstandings and the lack of integration of professional forest owners and forest managers during the development and implementation process of the Natura 2000 network are hard to overcome.

We therefore welcome recent initiatives by the European Commission to share experiences and expectations.

With SFMOs focusing on Natura 2000, EUSTAFOR launched a working group to discuss issues which are relevant to EUSTAFOR member organisations.

As a result, it is our pleasure to provide this booklet which offers a comprehensive insight into the complex issues and approaches of organisations like ours in dealing with Natura 2000. We hope it will form a valuable contribution to the European Commission's initiatives.

The conclusions clearly show that European State Forest Management Organisations contribute, to a large extent, to the achievement of nature conservation objectives and that, as relevant players who make these measures happen, their integration into policy development initiatives is crucial to ensuring a successful outcome.



Bluntau, Austria (photo: F. Pritz)

With this booklet, we are pleased to contribute to a better understanding and prospective development in the field of Natura 2000 and forest management.

EUSTAFOR welcomes your comments and feedback.

2. THE EUROPEAN CONTEXT – FORESTS AND NATURA 2000



François Kremer
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The EU nature conservation policy and Natura 2000

The Natura 2000 network of protected areas is at the core of the EU nature and biodiversity policy.

It was established by the 1992 Habitats Directive and it includes both Special Protection Areas designated under the 1979 Birds Directive and Special Areas of Conservation designated under the Habitats Directive. More than 26 000 sites have been selected by the Member States in order to ensure the long-term survival of Europe's most valuable and threatened species and habitats (some 200 habitat types and 700 species of EU interest and 180 of the most threatened bird species). Today, Natura 2000 is the key element of the EU strategy aimed at reversing biodiversity loss in the EU by 2020.

But Natura 2000 is not a network of conventional protected areas or nature reserves in which human activities are restricted or even excluded. In Natura 2000 sites, human activities are usually recognized as acceptable. The Natura 2000 network is a basic tool of sustainable development. This means that human activities are allowed in and around Natura 2000 sites as long as they safeguard the habitats

and species of community interest for which the site has been designated. Natura 2000 sites have been selected especially because they are of particular importance for the conservation of certain threatened species and habitats. According to the Habitats Directive, Member States must take appropriate measures on Natura 2000 sites to avoid deterioration of protected habitats and disturbance of protected species. They must also establish conservation measures that correspond to the ecological requirements of the species and habitat types present on the sites.

Forests and other wooded land represent around 50% of the area of Natura 2000 sites and around 23% of the total forest resource in the EU is within Natura 2000 sites. Forestry is an important socio-economic factor in Natura 2000 areas. The designation of a forest as a Natura 2000 site means that the management of that forest must avoid deterioration of protected habitats and disturbance of protected species. It should also contribute to proactive measures, where necessary, to restore a favourable conservation status of these habitats and species.

In practice, this may mean, for example, that an *Asperulo-Fagetum* beech forest present on the site cannot be transformed into conifer stands or replanted with species that are not characteristic for this habitat type. Another example could be the need to restore a forest habitat, such as an alluvial forest with *Alnus glutinosa* and *Fraxinus excelsior*, where this has deteriorated. In certain cases, other measures may be required such as allowing for an increased proportion of deadwood in order to improve ecological conditions for protected species or avoiding harvesting during the reproductive periods of birds.

According to the latest EU-wide assessment of the conservation status of habitats and species of EU interest, forest habitat types generally have a better conservation status than non-forest habitats. Nevertheless, several forest habitat types and forest species remain in an

unfavourable conservation status in some parts of the EU. This means that, compared with many other human activities, European forestry has the merit of having contributed to safeguarding a relatively rich biodiversity. Since the 1990s, European forestry has been actively developing and applying sustainable forest management criteria that specifically include the conservation of biodiversity. The Natura 2000 network provides an excellent framework for the forestry sector to contribute as an active partner towards halting the decline of biodiversity in the EU by 2020 and restoring it where necessary, in line with the EU Biodiversity Strategy.

Next steps from the European Commission's point of view

After a long period of site selection and designation, Natura 2000 has now entered the phase of active management, including the designation of sites of community importance as special conservation areas at national level and the establishment of site-specific management instruments, involving wide public consultation. The management instruments not only offer information on site-specific conservation objectives but they are also the ideal framework for agreeing on conservation measures and for defining joint working between sectors. They represent a framework for clarifying financial aspects such as compensation payments for loss of income and the overall budgeting of conservation measures. They also allow for the monitoring and periodic review of conservation measures.

The European Commission promotes an open dialogue between all parties involved in Natura 2000 in order to establish true cooperation and collaboration. Natura 2000 is not just relevant for national nature conservation authorities or NGOs. It is equally relevant for land and forest owners, farmers, foresters, local authorities and other parties, such as the tourism sector or the hunting community. It is essential that these parties are involved or at least consulted in the establishment and implementation of Natura 2000 management instruments.

It is important to develop a mutual understanding and dialogue between nature conservationists and forest owners. In the past, these two communities have spent too much time and energy arguing about their respective priorities and interests, rather than exploring common interests and potential synergies.

The European Commission has recently undertaken a renewed effort to bring together the respective parties to discuss their views on forest management. The aim is to improve mutual understanding, explore ways of improving joint working in the future and develop a model of cooperation and integration between nature conservation and sustainable land use for all Natura 2000 forests. An initial stakeholder workshop was held in December 2012 in Brussels. It was jointly organised by the Nature Unit of the Directorate-General for Environment and the Forestry Unit of the Directorate-General for Agriculture. The workshop started with a round table discussion on issues at stake, followed by the presentation of a number of illustrative case studies on the relationship between Natura 2000 and forestry. The Commission also circulated a discussion paper to major stakeholder organisations and it received a large number of highly valuable comments. A second workshop was held in Brussels in May 2013. Finally, in autumn 2013, a restricted working group will be held with members from nature and forest authorities and stakeholder organisations. This group will assist the Commission in drafting a new document on Natura 2000 and forests, explaining the provisions of the Nature Directives and providing recommendations for and examples of best forest management practices in Natura 2000. The document will be developed using a bottom-up approach working closely with the relevant sectors and authorities. The final document will reflect a consensual view of the forestry and nature conservation communities on Natura 2000 and forests. This work is expected to be finished by mid-2014¹.

Balancing the subsidiary principles of EU directives with its enforcement objectives

It is the Member States' responsibility to take appropriate measures to prevent the deterioration of Natura 2000 sites and to establish proactive conservation measures where necessary. It is the Commission's role to make sure that the Member States fulfil their legal obligations by calling them to order or even taking them to court if necessary.

¹ EU, Natura 2000 and Forests (2015): <https://ec.europa.eu/environment/nature/natura2000/management/docs/Final%20Guide%20N2000%20%20Forests%20Part%20I-II-Annexes.pdf>

The Commission also plays an important role in co-financing conservation measures in Natura 2000 and in facilitating cooperation between Member States. To support this, the Commission is producing sector-specific guidance on the implementation of the Birds and Habitats Directives.

In 2011, the Commission launched a new cooperation process between Member States at the level of biogeographical regions in order to make Natura 2000 management more coherent. This initiative aims to maximise the EU's added value to the Natura 2000 network and its contribution to achieving EU biodiversity targets. During this process, forest habitats have been selected as a priority for joint working between Member States in the Boreal, Alpine and Mediterranean biogeographical regions. Forest habitats are also likely to become a priority in the remaining biogeographical regions. It is essential that the forest sector and related stakeholder organisations actively participate in meetings and networking as part of this new process.

Working with nature in Natura 2000

During the early phases of project design, existing Commission guidance on the implementation of the Habitats Directive insists on the integration of nature conservation objectives with economic development objectives. Planning new projects should involve more than just preventing the deterioration of biodiversity or repairing unavoidable damage. It should apply the principles of 'working with nature'². Plans and projects should be designed in a way that, wherever possible, they contribute not only passively but pro-actively to achieving nature conservation objectives. This might require some special efforts for large infrastructure projects in sensitive ecosystems. But for forests one should expect 'working with nature' to be a fundamental sustainable forest management practice.

Europe's forests have been shaped by man for centuries and many forest management practices are compatible with Natura 2000 goals. Sylvicultural science has constantly evolved while being founded on an ecosystem approach. Even though one has



Limestone Alp (photo: F. Pritz)

to recognise that sustainable production does not necessarily always match the conservation objectives of Natura 2000 sites, sylvicultural science has been a pioneer in developing and applying principles of the sustainable and multifunctional use of a natural resource. Therefore, the forestry sector is a most welcome partner when it comes to actively managing Natura 2000 sites and helping to achieve the EU's biodiversity targets.

² It was PIANC, the World Association for Waterborne Transport Infrastructure that, in 2008, first promoted the concept of "Working with Nature" in a position paper (See: <http://www.pianc.org>).

3. NATURA 2000 MANAGEMENT IN EUROPEAN STATE FORESTS

Overview of SFMO activities to build the Natura 2000 network

The aim of the Natura 2000 network is to ensure the long-term and continuous survival of Europe's most valuable and threatened species and habitats. It consists of two types of areas designated by Member States: **Special Areas of Conservation (SAC)**, which are based on the Habitats Directive, and **Special Protection Areas (SPA)**, designated on the basis of the Birds Directive.

Designated areas are divided along nine biogeographical regions in the EU, each of them with its own characteristic blend of vegetation, climate and geology. They also apply to marine ecosystems. Working at the biogeographical level makes it easier to conserve species and habitat types under similar natural conditions across a group of countries, irrespective of political and administrative boundaries.

The network is not, like others, a system of strict nature reserves where all human activities are excluded, even if some areas are highly protected. Nature reserves are included, however, most of the land is likely to continue to be managed by its owner, albeit with an emphasis on ecological issues within a framework of sustainable site development. The establishment of the Natura 2000 network also fulfils the European Union's obligation as a party to the UN Convention on Biological Diversity.

SFMOs place importance on integrating Natura 2000 objectives into their management practices and play a key role in the actions that are implemented in order to enhance the conservation status of habitats and species.

Figure 1 presents the proportion of private and state forest ownership in the European Union.



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Surface data on state forests and Natura 2000 in Member States

The figures in Table 1 show the level of responsibility SFMOs have towards forests and Natura 2000 in terms of managed area. Natura 2000 constitutes a significant share of SFMO-managed forests, ranging from 3% to 50%, with most SFMOs at around 35%.

Each country has chosen a different model for selecting Natura 2000 sites. While in Poland most of the Natura 2000 sites in forests were selected from public forests, Sweden has chosen Natura 2000 sites that were already formally protected areas or became new formally protected areas such as nature reserves or national parks. The more selective Swedish model reduces the cases where Natura 2000 affects forestry, but most European countries have chosen a more integrated model of balancing forestry and Natura 2000 aspects within the same forest area.

SFMOs manage a wide range of Natura 2000 habitats and species

Land managed by SFMOs covers a wide range of natural habitats listed by the Habitats Directive. SFMOs are not only responsible for the management of all kinds of forest habitats found in their biogeographical region, but also for:

- coastal habitats, including dunes
- freshwater habitats
- grasslands
- caves
- heath and scrubs
- mires (fens and bogs)
- rocky habitats.

This variety of habitats houses an even more diverse range of species, meaning that foresters are also in charge of a great number of species from the Birds Directive (such as woodpeckers, eagles and kites) and from the Habitats Directive (such as plants and mosses, bats and other mammals, beetles, reptiles and amphibians, but also fish and butterflies).

Figure 1 Forests under public and private ownership (%), 2010

Source: EU Commission: "Rural Development in the EU, Statistical and Economic Information Report 2012"



SFMOs integrate Natura 2000 issues into everyday forest management...

For several years now, SFMOs have been addressing many biodiversity issues in their multifunctional forest management. This has made it easier for SFMOs to incorporate the concerns of Natura 2000 into everyday forest management. Taking into account Natura 2000 conservation objectives, forestry can generally be carried out without any significant impact on Natura 2000 species and habitats.

A variety of measures can be implemented depending on the location and site conditions. These include:

- allowing the predomination of natural regeneration
- leaving habitat trees and deadwood undisturbed

- leaving old tree clusters undisturbed
- taking into account the needs of high-demand species.

Italy serves as an excellent example for the latter measure, where areas and work schedules have been defined that respect the ecological sensitivity of Tetraonidae.

Additionally, in several countries, special guidelines concerning Natura 2000 are defined for SFMOs (Lower Saxony, Latvia, Slovakia).

However, it must be noted that in some countries there is still no agreement on how to include the management of Natura 2000 sites into forest management.

Table 1 Level of management responsibilities of selected European SFMOs

Source: Data supplied by EUSTAFOR members.

	Country area (thousand ha)			Natura 2000 areas (thousand ha)			State* forest area (thousand ha)		
	Total	Forest	%	Total	Affected forest land	%	Total	Thereof N2K	%
Austria	8.388	3.920	47	1.232	530	43	523	222	42
Baden-Württemberg (Germany)	3.575	1.395	39	631	372	59	329	115	35
Bavaria (Germany)	7.055	2.471	35	797	449	56	805	243	30
Estonia	4.523	2.205	49	720	355	49	827	227	27
Finland	33.843	25.688	76	5.000	4.600	90	9.200	4.600	50
France	54.396	16.100	29	6.900	2.691	39	4.660	1.401	30
Latvia	6.459	3.675	57	750	435	58	1.595	235	15
Mecklenburg-Vorpommern (Germany)	2.300	540	21	670	222	33	191	78	41
Niedersachsen (Germany)	4.765	1.160	25	500	170	34	340	85	25
Poland	31.189	9.121	29	6.078	2.978	49	7.072	2.850	40
Romania	23.839	6515	27,3	5.573	2.606	47	3.285	1.369	42
Scotland	7.710	1.392	18	1.924	69	4	463	19	4
Slovakia	4 903	2 007	40,9	1.445	1.166	80	918	446	49
Slovenia	2.027	1.186	59	730	511	70	244	97	40
Sweden	41.031	28.605	70	6.767			3.132	92	3

*The term "state" refers to public (forest-)land under the management of a EUSTAFOR member.

...and implement specific actions to improve the conservation status of species and habitats

SFMOs are also involved in projects aimed at the restoration of habitats or species or at maintaining their conservation status. These projects can be initiated and funded by SFMOs themselves but, usually, they are carried out under EU initiatives and financial mechanisms (LIFE, INTERREG, Cohesion Fund etc.) which are sometimes co-funded by governments. On this basis, SFMOs are involved (either as project managers or as partners) in several European projects, including:

- conservation and restoration of Rhineland habitats (France)
- implementation of the Mire Habitat Management Plan (Latvia)
- Capercaillie conservation (Scotland)
- intentional burning at the Natura 2000 site Åtmyrberget (35 000 ha) to promote fire-adapted beetles (Sweden).

We can also cite the example of England where the Forestry Commission carries out a range of actions such as: removing invasive exotic species (rhododendron); re-establishing native forests, marshlands and heathlands in plantations; reinstating bogs and fens; reinstating natural watercourses; reinstating traditional forest management systems (including grazing, coppicing and high forests); managing public recreation; raising the awareness of their staff and the public; training their staff.

In some countries, such as France and Germany, contracts are drawn up with stakeholders in order to carry out specific measures designed to enhance the conservation status of habitats and species through, for example, the conservation of old trees and open habitats and the creation, or conservation, of forest ponds.

It is also important to note the implementation of Natura 2000 monitoring. SFMOs are often involved in species inventories and the mapping of habitats, both of which are needed for nature conservation planning.

Finally, SFMOs firmly promote the implementation of Natura 2000 management planning in community and private forests by providing information, advice and support.

How to go even further and make greater improvements?

SFMOs have found bureaucracy to be a problem with the Natura 2000 programme. Some administrative procedures could be simplified at both national and European levels. A large number of conservation activities are carried out thanks to various EU financial mechanisms. However, these mechanisms can at times be bureaucratic. There is a need for more transparency towards forest owners and forest managers when making decisions about Natura 2000 funding. By involving them as soon as possible in the process, their effectiveness in implementing measures can be improved. Another area for improvement identified by SFMOs is for those involved in EU financial mechanisms to improve their knowledge about biodiversity in order to be able to assess applications more effectively.

Nevertheless, it is important to highlight the key good practise that is implemented in most countries: The incorporation of nature conservation objectives in forest management plans. This guarantees the compatibility of Natura 2000 and multifunctional forestry in a sustainable forest management framework.



Restoration of wooded meadows, Latvia (photo: Ieva Rove)

Excursus: Other SFMO nature conservation measures and activities

Nature protection is one of the main objectives of SFMOs' forest management concepts and has been so for several decades. Various activities, such as scientific collaboration, active management measures, and special projects, demonstrate the proactive approach of SFMOs towards preserving and enhancing biodiversity, rare habitats and species, and the natural beauty of landscapes. Each SFMO has chosen its own way of looking after the forests it is responsible for.

LÖWE-Program in Lower Saxony, Germany

The LÖWE Program was among the first of the long-term ecological development concepts for state forests. LÖWE is an acronym from the *German Langfristige Ökologische Waldentwicklung* and means lion. It was set up by the state government of Lower Saxony in 1991 and provides 13 guiding principles for natural forestry operations. LÖWE silviculture is constantly subject to a balancing process between the multifunctional demands of forests and the interaction of natural climatic, biological and local conditions. This is just one example of the underlying principles of SFMO forestry. The LÖWE principles are not restricted to specific protected woodlands or protected areas. They are implemented across the whole of Lower Saxony's state forests.

The French way

Most SFMOs address biodiversity issues within their everyday forest management. The French *Office national des forêts* (ONF) does this by taking environmental issues into account when drawing up their forest management plans and throughout the felling process. Specific felling and forestry working rules have been defined in national bills in order to achieve this aim. For example: ONF implements several measures for the conservation of old trees and deadwood; in order to limit soil settling, harvesting tracks are set up through the stands.

Moreover, ONF has a network of 6 naturalists among its staff who are specialists in the following fields: birds, insects, habitats and flora, mammals, herpetology and mycology. Their aim is to develop

knowledge about our natural heritage and to favour biodiversity considerations in forest management.

Ecoforests in Latvia – one step further towards integrated management

Nature conservation forms an important part of the strategic and tactical planning of land managed by the joint-stock company *Latvijas valsts meži* (LVM). Since LVM was established in 1999, great attention has been given to maintaining natural assets and, since 2010, further steps towards integrated management have been taken. New protected areas, so-called ecoforests important for their high biological diversity, have been established in the land areas managed by LVM. In these ecoforests, additional voluntary measures to maintain rare species and habitats have been developed. The development and management of ecoforests are among the first steps in the Baltic region to ensure the conservation status of rare species and habitats outside of the Natura 2000 network and to develop a basis for the further development of green infrastructure and connectivity. Since 2011, special management plans and monitoring programmes of Natura 2000 species and habitats have been carried out to ensure long-term surveillance of the natural assets of ecoforests.

AuT-concept in Baden-Württemberg, Germany

Another example of an SFMO initiative to enhance biodiversity is the *Alt- und Totholz* (AuT) concept of Baden-Württemberg. Specialists from the SFMO ForstBW and experts in species ecology have collaborated closely to develop a concept that takes into account ecological, social and economic objectives – such as the enhancement of habitat structures and habitats of saprophytic species – while avoiding damage from forest visitors and forest workers. Safeguarding the conservation and undisturbed ageing of old trees leads to a further improvement of key ecological structures. By forming groups of present and future habitat trees, dead and destabilized (possibly collapsing) trees are locally concentrated and easier to recognise as dangerous zones. As an integral part of state forest management, the AuT concept aims to improve biodiversity over the whole area of state forests, not restrict it to the Natura 2000 network or other conservation areas.

4. COSTS AND FUNDING



Christian Boele-Keimer
Lower Saxony State Forests

The Natura 2000 network is the largest and most important nature conservation project within the EU. It covers 75 million hectares (17,5%) of the EU terrestrial landscape. The financing of Natura 2000 is based on Article 8 of the Habitats Directive. The Member States have primary responsibility for the financing of Natura 2000. The Habitats Directive links delivery of necessary conservation measures to the provision of the EU co-financing. The EU Commission has published a booklet on financing Natura 2000³ that shows the various funding possibilities at EU level.

Considering the importance of Natura 2000 and the benefits to species and habitats, the costs for developing and implementing measures, as well as unforeseen costs, cannot be ignored. But it is difficult to give a complete and factual overview of the costs to Member States and at EU level.

According to an impact study by the EU Commission in 2008⁴, the annual costs for the EU-27 are estimated to reach 5,8 billion euros. This amount covers costs for the establishment and management of Natura 2000 sites as well as for protection measures and efficiency control. Also included are costs for environmental education. Averaged over the terrestrial land area of Natura 2000, the total investment

needs amount to EUR 63 per hectare per year. Unfortunately, the impact study does not give an overview of unforeseen costs (for example, a reduction in timber production in state or private forests). In addition, the total administrative and other organisational costs, not only to the government but also to forest owners and forest managers, have not yet been taken into account.

In 2011, an EU Commission Staff Working Paper on Natura 2000 financing was published. Since 2004, Natura 2000 funding has been integrated into EU funding for different policy sectors (CAP Pillar 2). The EU Commission declares that, even with the complete scoping out of all existing funding possibilities, only 20% of the estimated annual costs for Natura 2000 can be covered. One reason identified by the EU Commission is the lack of management plans, which are needed in order to develop necessary conservation measures. What is needed is increased funding, together with new funding instruments, as well as a measure of the socioeconomic advantages of Natura 2000. The Commission expects, particularly through improvements to management plans and subsequent improvements to habitats, that sizeable funding from Pillar 1 (for agriculture) may be switched to financing Natura 2000.

Forestry and forest landowners feel that the existing funding arrangements for Natura 2000 could be better developed. This is primarily due to the nature of forests themselves. Sustainable forest management is based on very long-term planning, sometimes as far forward as one or two hundred years. It is difficult to develop long-lasting funding instruments over such an extensive period, to cover annual costs which are related to all the agricultural and environmental measures. The consequences of some measures will become known in fifty or more years (for example, the neglect of special conifer trees in protected areas). Natura 2000 costs for forests arise from several different functions:

- administration and management of Natura 2000 sites
- management plans and monitoring of habitats and species
- special projects and measures
- unforeseen reduction of timber harvest now and in the future.

Best practice examples in this booklet are proof that a multitude of reasonable and partially EU co-financed projects have been set up by SFMOs in recent years. SFMOs look after large Natura 2000 sites and have the expertise and the financial capacity to initiate projects, even if EU funding is necessary to refinance any projects at a later date. Funding for Natura 2000 projects for private forest owners is more difficult. But, for both SFMOs and private forest owners, improved funding of Natura 2000 and its associated costs is necessary if Natura 2000 is to progress.

A widespread German impact study⁵ from 2012 concluded that the average annual costs for private and state forest management organisations reached EUR 40 per hectare. This impact study took into account the costs for habitat trees, poor quality or reduction in timber harvest, higher harvesting costs and the disposal of conifer trees. In 2006, the European Court criticized the announcement of “orderly forestry”, a German best practice in forest management. Since then, restrictions on forestry in Natura 2000 sites have increased and have led to higher costs.

Accordingly, some German federal states have introduced, or plan to introduce, compensation to private forest owners of between EUR 50 and 100 per

hectare per year. As yet, SFMOs do not receive any compensation despite being subject to restrictions comparable to those of private forests.

A significant improvement to Natura 2000 financing and funding instruments could be achieved by the introduction of an independent EU nature funding scheme. This would mean that existing competition with other EU funding (for example, EU agricultural funding) could be avoided. Financial contribution at EU level for the Natura 2000 network could stimulate national funding and highlight the importance of this nature conservation strategy. It is recommended that any nature funding programme should cover co-financing of the administration and management of Natura 2000 sites, management planning, monitoring, the development of a measure of expenditure and unexpected costs.

The EU funding strategy relating to SFMOs is inconsistent. SFMOs should be able to benefit as much from Natura 2000 forestry environmental measures as public landowners benefit from agricultural environmental measures. SFMOs manage a high percentage of Natura 2000 sites and protect a wide range of Natura 2000 species and habitats. SFMOs have well-trained staff and specialists in nature and species conservation. They operate efficiently and cost effectively which allows them to continue to be a key enabler for Natura 2000. But to use these strengths fully, SFMOs need to be able to benefit from Natura 2000 funding. This would allow SFMOs to make a significant improvement to the conservation status of habitats and species, thereby contributing to the overall success of Natura 2000.

³ European Commission. (2004/7/15). Financing Natura 2000. <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52004DC0431&from=EN>

⁴ Institute for European Environmental Policy. (2010/10/06). Costs and Socio-Economic Benefits associated with the Natura 2000 Network http://ec.europa.eu/environment/nature/natura2000/financing/docs/natura2000_costs_benefits.pdf

⁵ Wippel, B. et al. (2013/01). Project FFH-Impact: Implementing the Habitats Directive in German forests. https://literatur.thuenen.de/digbib_extern/dn052208.pdf

5. MANAGEMENT PLANS – BALANCING NATURE CONSERVATION AND FOREST MANAGEMENT



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“Planning is the tool for thinking about and creating the future”⁶

Stability, competence and communication-based management form the backbone of an organisation’s successful sustainable long-term performance. This performance can only be ecologically and economically sustainable in the long term if it is based on ecological principles which are acknowledged by its management, and if there is available natural capital. This applies to State Forest Management Organisations (SMFOs). Thus, SMFOs conduct their planning and daily operations using an integrative approach, implemented as multifunctional forest management, rather than a more isolated approach. One of the benefits of integrated management is that social and cultural aspects are also taken into account.

Scientific and realistic planning is crucial for successful management. Management plans, therefore, need to incorporate a wide range of initiatives necessary to reach their objectives. Any such initiatives should complement the operational work. So, from a multifunctional forest management point of view, Natura 2000 is one of many elements to be included in the management of organisational objectives and must be aligned with all parts of the existing organisational management and planning systems. This demonstrates how European value-based forest management is able to integrate conservation measures as part of its natural resource management.

⁶ Carlos Matus (1931-1998) – a promoter of Situational Strategic Planning (Matus, C. (1983). *Elementos de planificación estratégica, política y plan en situaciones de conflicto.*)

Importance of forest management plans for Natura2000 sites

Forest management plans have a long history in Europe. They were originally used to guarantee the sustainable use of timber. While management practices can differ between EU Member States, the large number of Natura 2000 sites that have been developed on state forest managed land is clear proof of the effectiveness of existing management. These Natura 2000 sites are the “jewels in the crown” of the European Union’s nature conservation network. They have been developed, maintained and conserved as a result of decades of responsible management and protection by state forest management organisations.

A large amount of terrestrial Natura 2000 sites are on land managed by state forests. As shown in Table 1 (page 11), there is a significant positive correlation between the effectiveness of various state forest organisations’ planning systems and their beneficial effects on nature.

As pointed out by the European Commission (Chapter 2), the Natura 2000 network plays an active role within the European Union. The network’s existing systems are based on a common heritage and have been adapted in different ways, with traditional management being carried out alongside non-interventionist measures. This system requires shared, integrated management, which takes into account a broad variety of regional aspects and traditional management methods.

State forest managers are an integral part of the system and should, therefore, be taken into institutional consideration if the ambitions of Natura 2000 are to be implemented successfully.

In order to achieve the objectives of Natura 2000, its targets must be clearly stated. Moreover, double standards or contradictory demands on the forest sector should be avoided (for example, guaranteeing nature conservation while simultaneously aiming to increase the amount of harvested timber).

Contradictory socio-economic requests place a great deal of pressure on forest ecosystems and the forest sector as a whole.

If objectives are not well thought through or balanced, there is a risk of dividing forest activities. Is the aim to set aside huge areas under non-intervention regimes and to dedicate other areas to intensified timber production?

Preservation and conservation of rare species and habitats, as well as sites of community importance, is possible in line with maintaining communities of typical species, habitats and landscapes. Successful implementation of Natura 2000 objectives is possible through forest management planning within Natura 2000 sites as well as looking at wider scale planning systems at local, regional and natural range level.

Nature conservation versus forest management – contradiction or opportunity?

Forest management plans can incorporate nature conservation requirements. Conversely, a Natura 2000 site management plan can include requirements for specific forest conservation and management measures. Within Europe, there are different ways of incorporating nature conservation activities and methods into forest management plans and of structuring these plans accordingly.

Nevertheless, a forest management plan also includes strategic and operational sections and covers many other aspects, ranging from economic (such as timber production) to recreational, nature conservation and protection (especially in the mountainous and high mountainous regions of Europe).

Nature conservation has evolved significantly in recent times. Over the last few decades, scientific and ecological needs have increasingly become based on the turnover and dynamics of nature conservation, taking into account various management activities. Additionally, the meaning of “management measure” has broadened and now covers:

- a non-intervention or wilderness approach where surveillance of certain conditions is important
- management to maintain the natural environment in a specific condition
- restoration management
- disturbance management
- infrastructure management.

When planning Natura 2000 sites, one must remember the different qualities of natural capital.

- One must be cautious of single-species management, even if it is an “umbrella” species.
- A complex approach at the level of a habitat or an ecosystem is more suitable and naturally takes into account the multifunctional aspects of a site.

By analysing the ecological needs of Natura 2000 species and habitats and traditional forestry in specific countries, it is possible to define and qualify certain categories of relationships:

- **Win-win** management aligns nature conservation and forestry interests. The main players are disturbance-dependent species and habitats as well as ecosystems developed in line with long-term extensive traditional management (for example, disturbance replication in boreal forests using traditional forestry).
- **Neutral** management balances timber production with the maintenance of specific types of natural capital.
- **Win-lose** management occurs where it is not possible to combine traditional forestry with the conservation of specific types of natural capital. Common examples are species and habitats that are sensitive to disturbance (for example, swampy forests which are sensitive to any structural or functional change).

The interrelationship between society and nature in the EU has been pieced together from various regional, geographic, cultural and other traditional aspects, forming a variety of management concepts and operational activities. Currently, approximately 4% of EU forests are managed under a non-intervention or wilderness regime. Mostly, however, nature conservation is being carried out alongside forestry.

In state-managed forests, an average of 50% of nature conservation measures within Natura 2000 areas are based on legal requirements, while the remaining 50% of nature conservation measures are additional and voluntary, planned and implemented by individual SFMOs. SFMOs in Sweden and Latvia, for example, voluntarily protect huge areas. It is, therefore, important to emphasise that, in areas managed by SFMOs, organisational nature conservation activities do exist outside of the Natura 2000 network.

High-quality planning and implementation are complex challenges

Protection and conservation become possible through:

- recognition
- understanding
- knowledge
- respect.

A professional approach is needed for dealing with everyday work, which includes solving many complex challenges, ensuring high-quality area planning, implementing planned activities, as well as monitoring the activities carried out.

Guaranteeing long-term sustainable forest management is part of an SFMOs' objectives. They aim to conserve and manage forest ecosystems, including the management of Natura 2000 sites, in a professional and effective way. Through decades of applying sustainable forest management methods, EUSTAFOR member organisations have built up a strong competence in nature conservation.

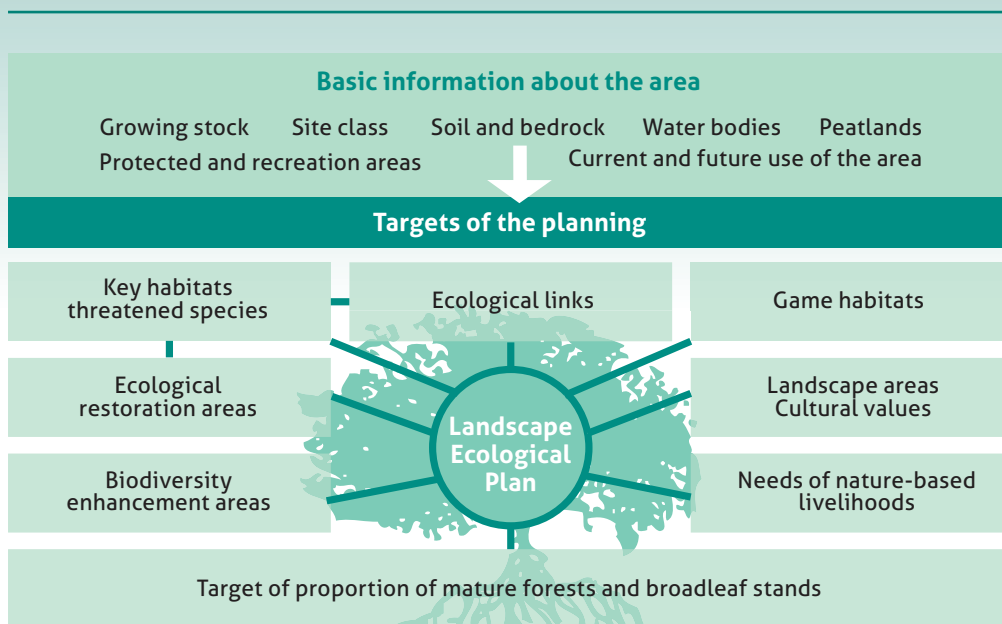
SFMOs are able to guarantee behavioural continuity when implementing long-term policy objectives such as Natura 2000, while at the same time maintaining performance levels and achieving targets. This is absolutely necessary when acting as an active partner in the implementation of Natura 2000 policy targets. This requires the ability to plan, manage, implement, monitor and control. It also requires specialised staff, the ability to develop high quality and scientifically based management measures, and having the appropriate tools in place to implement these measures. The case studies in this booklet show that SFMOs, with their professionalism and experience, can demonstrate how they apply proactive, successful and practical concepts for the protection of habitats and species in their day-to-day management.

SFMOs encourage day-to-day feedback online rather than relying on paper records for planning, management and surveillance. To avoid excessive bureaucracy and administrative pressures, SFMOs use existing administrative systems, staff, offices and equipment to minimise the excessive use of resources.

SFMOs provide practical management and monitoring to address shared Natura 2000 challenges. However, there is room to improve trust, cooperation and communication between all actors involved in the Natura 2000 system, based on the elements of multilateral respect and competence. In general, forest management plans can be compared to landscape ecological plans (Figure 2).

The well-functioning concept of multifunctional and sustainable forest management is a central element of nature conservation in Natura 2000. This concept has enabled the continual integration of multiple forest ecosystem functions, biodiversity conservation, water

Figure 2. Principles of landscape ecological planning in forests (after Karvonen, 2000).



management, soil protection, recreational space, the production of wood and non-wood products, and clean air. Sustainable forest management contributes to biodiversity in forest ecosystems. The responsible use of natural resources such as timber, hunting and fishing accompanies a favourable conservation status and, depending on their ecological needs, is sometimes essential for the maintenance of special habitats and species.

With a combined resource of more than 100 000 people, SFMOs are able to offer a wide range of expertise, as well as practical examples and applied solutions when managing Natura 2000 sites at different levels.

Monitoring systems

Why monitoring and reporting?

Article 17 of the Habitats Directive (Commission's DG Environment, 2012) requires Member States to provide regular reports on the progress of their implementation. As the main focus of the Directive is on maintaining or restoring a favourable conservation status for habitat types and species of community interest, the monitoring and reporting under the Directive also has the same focus. More precisely, the monitoring of conservation status is an obligation arising from Article 11 of the Habitats Directive for

all Annex I habitats and Annex II, IV and V species of community interest. Consequently, this provision is not restricted to Natura 2000 sites. Data need to be collected both within and outside the Natura 2000 network to achieve a full appreciation of the conservation status. The main results of this monitoring must be reported to the Commission every six years according to Article 17.

Monitoring and reporting in accordance with EU rules are not goals in and of themselves. Regardless of the EU legal framework, monitoring and reporting are necessary to assess and maintain the effectiveness of implemented management measures.

Same task – different solutions

Member States are developing and implementing methodologies and instruments to fulfil their monitoring obligation. Unsurprisingly, Member States' solutions for this task differ profoundly. First, authorities differ in their organisational structures. Second, SFMOs have different tasks and responsibilities concerning forest nature conservation matters. Third, Member States and SFMOs have varying experience and traditions in monitoring habitats, species and ecological constraints. Whereas some Member States have been mapping and monitoring forest habitats and certain species for many years, others have not. Also, there are different



Multifunctional forest management includes conservation of deadwood (photo: ÖBF / Franz Kovacs)

approaches toward forest nature conservation depending on aspects such as: population density and multifunctional forestry, the practice of intensive plantation forestry, the tradition of close-to-nature forest management; or the question of ownership structure.

Identifying opportunities for and making use of collaboration

In nine out of thirteen Member States⁷, monitoring methodologies were developed more or less without the formal participation of forest administration bodies or SFMOs, and usually under the responsibility of the Ministry for Nature Conservation. However, in some Member States (Austria, Germany) monitoring instruments concerning forest habitats and species were developed with fairly close collaboration between conservationists and forestry experts. This is worth noting because collaboration in the early stages of development and implementation offers the chance of identifying and benefitting from the involvement of different organisational scopes and approaches. Existing and proven forest monitoring instruments (e.g. forest inventories, long-term species or habitat mapping) can be profitably integrated into the new monitoring system. Furthermore, monitoring should be considered as a management instrument. Forest managers can use the monitoring

⁷ In this sample, 16 SFMOs from 13 Member States provided information about their monitoring systems.

of species and habitats under the Habitats Directive to inform the adjustment and improvement of their management performance.

While under Article 17 conservation status is assessed across the whole of a biogeographic region within a Member State, the term 'Conservation Status' was also used by the former Natura 2000 Standard Data Form for describing the condition of each habitat type and species present on an individual site.

Some Member States (e.g. Austria, Germany, United Kingdom, France) have developed methods for the evaluation of features (habitat types or species) at site scale, often using an indicator-based assessment. This is an elementary part of monitoring under Article 17 (Evans D., Arvela M., 2011). Furthermore, this bottom-up approach ensures the commonality of monitoring and prioritisation. If action is needed in order to maintain or restore the favourable status of a certain species or habitat on a biogeographical level, conservation measures can be implemented on those individual sites where improvements are most necessary and effective.

Prerequisites for optimum solutions

As some good examples show, monitoring under Article 17 can be much more than simply accumulating huge amounts of data. The involvement of SFMOs in developing and conducting the monitoring of habitats and species very often leads to managerial and economic synergies, creates a better understanding between the cooperating partners, and ensures any necessary actions are taken promptly.

However, monitoring habitats and species, in particular, is expensive and time-consuming. The participation in or takeover of this task by SFMOs or other landowners must be fully compensated monetarily. Another crucial precondition for saving resources and achieving successful solutions is a sufficient degree of freedom for the Member States to fulfil Natura 2000 requirements individually according to their specific conditions. Specifications which are too narrow prevent relevant and innovative solutions.

The responsible forest manager is, of course, experienced and interested in monitoring managed land. This issue has wider implications than simply fulfilling the legal requirements of the EU. The results of monitoring reveal the balance that has been achieved between nature conservation and forestry as a result of effective forest management planning.

6. CASES OF BEST PRACTICE – SFMOS ENABLE NATURA 2000

Experiences and best practice examples from EUSTAFOR member organisations

Management planning and common experiences

Country: Austria

Activity: Elaboration of an interdisciplinary forest management strategy for the protection of important European-wide occurrences of bugs and bats according to Annex II of the Habitats Directive in the Natura 2000 region Kamp-Kremstal.

Key words: Bats, beetles, habitat trees and deadwood in managed forests, examples for management planning.

Contact: Österreichische Bundesforste AG, Roland Kautz, Roland.Kautz@bundesforste.at

Natura 2000 area “Kamp – Kremstal”

This project, which follows a previous biodiversity project, accommodates the most significant occurrences of bugs inhabiting deadwood xylobionta in Austria. The region contains the most significant refuges of the generally highly-endangered xylobiontic fauna throughout central Europe. Thus, the appearance of at least four species of bugs according to the Habitats Directive could be confirmed. The “Kremstal” is known for being one of the habitats with the densest population of bats throughout Austria, with 82% (22 out of 27) occurring species having been detected there.

Forest management strategy

The project’s objective is the successful conservation as well as the sustainable protection of these populations of bats and xylobionta which are significant on a central European scale. The challenge is to extend the currently rather modest knowledge about the spread of these species. In order to provide efficient protection, adequate action is needed to reflect the national significance and the level to which

they are endangered. The major task is to develop feasible ways of protection and maintenance by creating an adequate management strategy.

The project should satisfy the requirements for the implementation of the aforementioned measures. The procedure entails gathering information about the local forest ecosystems and protective goods, selecting forests to be investigated, exploring habitats required by the target species as well as registering their occurrences (nest trees, feeding marks, GPS localisation) using fruit traps, ultrasonic detectors, batcorders, Japan webs as well as examples of wood and brooding, and their analysis. Finally, the forest management strategy should be integrated into current forest management operations which include the development of a checklist of measures for the conservation of the Habitats Directive’s forest ecosystems and protective goods in the day-to-day life of the forest.

Mature forests and deadwood

Old and dead trees provide valuable habitats and the basis for fascinating biodiversity. Dying trees become an irreplaceable habitat source or deadwood for diverse, though endangered, symbioses. Deadwood is populated by a range of insects, of which bugs are the most diverse group. Habitation of deadwood and hollow trees constitutes a crucial contribution to the conservation of the local biodiversity in flora and fauna for ÖBf AG.

The reviewed and updated Forest Management Strategy now covers a variety of subjects such as bugs that populate deadwood, investigation and conservation of their habitat, as well as consideration of the protection of all types of endangered bugs and bats.

Country: Austria

Activity: Management strategy of Natura 2000 region Bluntautal – preparation.

Key words: Examples for management planning.

Contact: Österreichische Bundesforste AG, Roland Kautz, Roland.Kautz@bundesforste.at

Background

The Bluntautal region is used intensively for agriculture, forestry, fishing, recreation and tourism. Extensive surveys have been carried out in the Natura 2000 area to look in more detail at the consequences of these factors to the landscape. Several actions have since been recommended based on the survey results. In general, it was considered that action was needed in forest communities (artificially created spruce forests in forests which are potentially rich in deciduous wood) and cultivation of grassland and marshland. Suggestions for action have been developed and have already been discussed with ÖBf AG.

Starting position

The objective of the management structure's preparation for the Natura 2000 area (ÖBf manages 100 hectares) is to develop a foundation for ensuring and developing a favourable conservation status. The following aspects were investigated and elaborated accordingly: gathering data; registration of conditions concerning land utilization, habitat types, small inshore waters and amphibians, *Rosalia alpina*,

Cypridium calceolus and *Cottus gobio*; professional analysis and evaluation; objectives and action planning.

The results of the preparation of the management strategy will form the basis for ensuring or restoring favourable conservation through an adapted management strategy for the region.

ÖBf AG activities

ÖBf AG has defined conservation actions such as the conversion from spruce forests to mixed stands, rich in deciduous wood, and the reinforcing of riverbanks on the Upper Bluntausee. Reforested former pastures are being reforested to support butterfly fauna in transitional areas. Furthermore, a request was made to permanently cease using certain areas and for deadwood protection measures to be taken in areas populated by the *Rosalia alpina*. The decision about which measures should be carried out within the next few years will be the subject of further discussions with the federal state government of Salzburg (Department of Conservation Law and Funding).

What are the objectives of future similar projects?

Future projects should aim for landowners to actively participate in the planning process in order to check the feasibility of suggested actions prior to the commencement of the actual project. They could also suggest other potentially beneficial measures.

Such planning will provide important information for the various interested parties and enable interdisciplinary and technically well-founded actions. The differing perspectives of the various disciplines will need to be carefully integrated and consolidated, thereby enhancing expertise and addressing any concerns of the landowner at an early stage. Implementation-oriented planning of measures is possible and will eventually also guarantee a project's success at the planning level.



Natura 2000 site Bluntautal River (photo: W. Simlinger)

Country: Baden-Württemberg (Germany)

Activity: Natura 2000 management planning in Baden-Württemberg – participative and cooperative.

Key words: Stake holders, participation, forest management planning.

Contact: ForstBW, Nicole Schmalfuß, Nicole.Schmalfuss@rpf.bwl.de

Since 1989, rare forest habitats (all Annex I habitats) in Baden-Württemberg have been mapped and protected by the forest research institute of Baden-Württemberg. Since then, these habitats have formed the basis for ForstBW's forest management planning and their protection has been implemented regularly in forest management plans and maps. With slight adjustments, these approved proceedings could be maintained for the Natura 2000 management plan's mapping and protecting.

The District Nature Conservation Authority is in charge of establishing Natura 2000 management plans. In forests within Special Areas of Conservation (SACs) and Special Protection Areas (SPAs), they cooperate closely with ForstBW. For each SAC/SPA, management planning starts with a formal process to provide information and an official start date. Landowners and other stakeholders are informed about the objectives and process of Natura 2000 management planning and invited to participate and discuss.

After the official start date, habitats and species are mapped and assessed and, if necessary for their conservation/restoration or improvement, suitable management measures are described. Information gathered from rare forest habitat mapping is incorporated and the inventory of forest habitat structures is added to the inventory for periodical forest management planning. Thus, resources and time can be saved through multiple synergies. Forest management planning takes into account the specific protection objectives of the SAC forest module, thereby ensuring that forest management measures do not contradict protection objectives. Furthermore, active improvement of Annex I habitats and species can be achieved without having to develop extra implementation tools.

The resulting draft management plan is presented formally to stakeholders, offering them the opportunity to discuss the proposed protection measures. Although

there is no "democratic" voting on the plan, the formal participation process highly enhances their acceptance by landowners and managers.

The same process for incorporating rare forest habitat mapping and forest inventory into Natura 2000 management planning is used for incorporating Natura 2000 protection objectives and management measures into forest planning. After the Natura 2000 management plan enters into force, very specific measures are implemented for the management of rare Annex II species that fundamentally differ from close-to-nature silviculture by revising the forest management plan.

Country: Czech Republic

Activity: Rules for conservation measures of forest habitats in SACs in the Czech Republic.

Key words: Examples for management planning.

Contact: Lesy Ceske republiky, Jiri Stonawski, Stonawski@lesy.cz

"Rules for Conservation Measures of Forest Habitats in Special Areas of Conservation in the Czech Republic", approved by the Ministry of the Environment of the Czech Republic in 2006, serve as a basis for "summaries of recommended measures to ensure the favourable status of the subjects of protection" and also for the "protected area management plans" in the Czech Republic. The rules are considered sufficient for the care of particular forest stands in Special Areas of Conservation (SACs) in the Czech Republic if they are



Old and deadwood concept (photo: Juergen Bluemle, ForstBW)

not simultaneously the subject of stricter protection under national legislation and/or protection of Natura 2000 non-forest habitats or species, which require different management methods.

The first part summarises generally accepted principles of care at SAC level and stand-specific measures representing forest habitats of community interest that are the subject of protection in the specific SAC.

The second part describes in detail all types of forest habitats of community interest in the Czech Republic. It summarizes characteristics of particular types of forest habitat as well as those of specific types of measures. In both parts, crucial measures necessary for maintaining the current status of habitats as well as for their improvement are recommended.

The priorities of care for forest habitats subject to the protection of designated SACs in the Czech Republic can be summarized as follows:

- Preserve acreage of all habitats subject to protection under SACs and preserve the natural biodiversity across the whole range of habitats.
- Maintain the overall range of natural tree species (including subspecies or ecotypes) and not increase the overall representation of non-indigenous species unless otherwise specified. Exclude artificial regeneration of non-native species (especially invasive species) or hybrids capable of causing adverse changes in the gene pools of populations of native tree species (e. g. *Populus x canadensis* in the natural habitats of indigenous *Populus nigra*). Individual specimens of these species or hybrids should preferably be removed during forest thinning and logging.
- Conserve and promote the vitality of individuals of rare native species. Pay attention to the conservation of previously important but diminishing species (such as fir, native species of elm, black poplar, etc.) in their natural habitats.
- Prefer the natural regeneration of all native tree species if there is sufficient representation of trees that are in a favourable condition.
- Maintain and/or promote the diversified age and spatial structure of the forest, if possible with respect to the species composition of forest habitats.
- Outside existing game reserves, encourage game stocks which enable the growth of all native tree species.

Country: Ireland

Activity: Natura 2000 provides access to funding.

Key words: EU-LIFE, restoration of habitats.

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In 1998, the management board of Coillte decided to pursue FSC certification. As part of the preparation for certification, Coillte commissioned ecological surveys of its estate, with the aim of identifying habitats of special ecological value. These surveys, as well as consultation with National Parks and Wildlife Service (NPWS) staff, revealed that there were Annex I habitats present on the Coillte estate that had been planted with production forests but that could be restored to a good, natural condition.

Coillte pursued funding to restore its best Annex I habitats under the EU LIFE-Nature programme. Since 2002, Coillte has successfully completed 3 major habitat restoration projects, with a fourth currently in progress. In total, over 3 000 hectares of Annex I habitats on the Coillte estate have been restored, with funding of over EUR 6 million provided by LIFE-Nature. The restored Annex I habitats are raised bog, blanket bog and various woodland habitats (alluvial woodland, yew woodland, woodland on limestone pavement and bog woodland).

Coillte took the lead on this work – Coillte staff wrote the project applications, managed the projects and supervised the implementation of all the habitat restoration work on the ground. A project ecologist was contracted for each project to carry out vegetation monitoring and advise on the special ecological features of each project site. Some of the practical restoration work was contracted out to forestry contractors. For each project, NPWS and the Forest Service were represented in the project

management group and there was an advisory panel which involved a wider group of experts.

Some of the Annex I habitats restored in these projects were brought to light by foresters and ecologists working for Coillte – they were not known to NPWS before Coillte's surveys. The best example of this is 98 hectares of alluvial woodland that was discovered near Durrow, Co. Laois. The site had been planted with Norway spruce but had always been wet and prone to flooding, with vigorous regeneration of

a wide range of native trees and shrubs. The spruce plantation was removed, and this excellent site is now recognised as one of the largest areas of native alluvial woodland in Ireland. NPWS supported Coillte's projects by committing to designate these "new" habitats as SACs and co-funding Coillte's current (fourth) LIFE project.

Coillte received an award from the Member States of the European Union for being among the top 6 "Best of Best" LIFE-Nature projects assessed in 2010 for its work on the company's third LIFE-funded project "Restoring Priority Woodland Habitats in Ireland". This enhances the credibility of Coillte's FSC Certification and benefits the Coillte brand. For further information, please see the project websites:
www.woodlandrestoration.ie,
www.irishbogrestorationproject.ie,
www.raisedbogrestoration.ie.

Country: Latvia

Activity: Protected landscape area, Natura 2000 site "Ziemeļgauja".

Key words: Natural River – Gauja, *Osmoderma eremita*, *Crex crex*, wooded and flooded meadows.

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Background

The project focused on the middle section of the river Gauja in Latvia. The total Ziemeļgauja project area consisted of more than 140 km of extensive river valley in an area of about 19 000 hectares. Due to the light sedimentary rocks, many bends have formed in the river as well as oxbow lakes and meandering floodplains. In this area, 17 habitat types listed in the Habitats Directive can be found (of which seven are priority), including grasslands, wooded meadows, western taiga, *Tilio acerion* forests, alluvial forests, and bog woodland. The area is equally important for many (at least 45) Natura 2000 species, such as 250-350 pairs of corncrake (*Crex crex*) and the rare hermit beetle *Osmoderma eremita*. Due to specific geomorphologic circumstances, water flow and regular floods, natural succession is still taking place in some parts of the riverbanks. Forests and meadows – more than half of them semi-natural – are characterised by very high biological diversity.

Objectives

The aim of the project was to assign the most appropriate national protection status to the project area and create the basis for including the site in the Natura 2000 network. A complete survey of the area's conservation values was carried out. Based on inventory results, management and zoning plans would be produced for the whole territory in close collaboration with the key stakeholders. Draft regulations would be prepared for the assignment of legal protection status to the area and a management body would be set up to secure its long-term administration and control. Practical on-site actions would include the restoration and active management of around 350 hectares of grasslands for the corncrake and the management and restoration of around 300 ha of priority forests. In addition, micro-reserves would be set up for forests of particularly high conservation value.

Results

The main achievement of the project was the drawing up of the management plan and the new individual regulations on the protection and use of the project area. These documents created the basis for the sustainable long-term management and conservation of this site, thus ensuring favourable conservation status for habitats and species of EU importance.

More than 300 hectares of grassland habitats – including such priority habitat types as species-rich *Nardus* grasslands on siliceous substrates, Fennoscandian lowland species-rich dry to mesic grasslands, and Fennoscandian wooded meadows –



Natural River Gauja (photo: Latvijas Valsts Meži)

have been restored and nearly 500 hectares have been maintained by grazing, mostly using agri-environment schemes. The project activities have significantly facilitated the elaboration, improvement and use of agri-environment schemes for the maintenance of biologically valuable grasslands in the project area.

Also, within the scope of the project, around 380 hectares of forest habitats – including priority forest habitat, Western taiga, forest stands with old oaks (as a habitat for *Osmoderma eremita*) and *Tetrao urogallus* lek sites – have been successfully managed and restored. Additionally, the project ensured the establishment of 84 micro-reserves with a total area of around 240 hectares necessary for the effective strict protection of forest habitats in the project area. Initial monitoring results have shown that these management actions have been effective.

Project dissemination activities markedly raised general public awareness about the importance of the conservation of the areas and their unique value, as well as the profile of the Natura 2000 network. The project played an important role in demonstrating nature-friendly habitat management.

Country: England (United Kingdom)

Activity: Forestry Commission England and Natura 2000; experience over the past 15 years.

Key words: Funding, EU LIFE.

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Forestry Commission England (FCE) is the managing agency for state forests across England (253 653 hectares). Within the forest estate, 36 653 hectares are designated as SAC and 49 316 hectares are designated as SPA – in total some 45 000 hectares in Natura 2000 sites without overlapping.

Management of the designated forests and other land is closely integrated with Natura 2000 management objectives. While local difficulties may be encountered in achieving such effective integration of management objectives, FCE experience in its relations with Natural England, the government agency dealing with the designation and management of Natura 2000 sites in England, has been largely positive and in many cases very fruitful.

Over the past fifteen years, FCE has been engaged in a number of LIFE projects (New Forest LIFE; The

Border Mires; Limestone Pavements; New Forests (wetlands); Ravine Woodlands) that have both secured considerable resources from the EU to deliver favourable conservation status and led to consultation exercises and the creation of agreed management plans that have allowed management operations to proceed smoothly and without undue constraint or delay. The nature of these projects has been wide, ranging from the removal of exotic invasive plants to the restoration of river and stream systems.

In total, these projects have realized some EUR 10,3 million of additional funding that has been available for work across the FCE Natura 2000 sites under our management. In each case, the LIFE program provided essential experience, established the costs of management and the costs of effective techniques for recovery, improvement or management of wild habitats within the Natura 2000 sites. This experience and the establishment of known and understood costs for a wide range of operations has been the basis for future work undertaken with UK national funding for the management of designated land. In this respect, the role of Natura 2000 sites in benchmarking the costs of state land management for nature conservation across the wider estate has been very important.

While FCE has welcomed and embraced the designation of parts of its forest estate as Natura 2000 sites, there remain serious challenges, particularly in securing the EU LIFE funding made available to support their management. These are summed up below:

Funding: Access to UK-matched funding to secure EU support is limited (thus limiting the benefit that can be secured from designation).

Staff inputs: Staff time and costs and the equipping and training of staff are not eligible costs that can be put against project costs when applying for LIFE or other EU funding. This both limits the extent of matched funding and limits opportunities to raise the skills and experience of forest management staff via the LIFE program.

Land and land management: Land acquisition, ongoing management costs and the need for new markets to support delivery also present challenges.

All the options above could make a considerable contribution to the costs of managing and enhancing the existing Natura 2000 network if it were easier to secure funding for the actions listed above. Forestry Commission England is proud to act as stewards of a

number of key Natura 2000 sites across the country and to continue with the management of them to secure a future for wild nature and its enjoyment by people. In doing so it has, to date, secured significant funding from the EU to spend on their restoration and enhancement. There are, however, obstacles to securing the funding made available to state forest departments from the EU LIFE funds which need to be addressed if the benefit of managing Natura 2000 sites on behalf of the national governments is to be fully realized.

Country: Slovenia

Activity: Conservation status and potential threats to Natura 2000 forest habitats in Slovenia.

Key words: Biodiversity, favourable conservation status, habitat type, forest management planning, monitoring, indicators.

Contact: Farmland and Forest Fund of the Republic of Slovenia, Janez Polanc, Janez.Polanc@gov.si

The Slovenian Forestry Institute and the Slovenian Forest Service (KUTNAR, MATIJASIC, PISEK 2011) have tested the possible use of selected forest stand-based indicators for evaluating the conservation status across Natura 2000 forest habitats in Slovenia. The potential threats to habitat types were identified. The conservation status of the forest habitat types of EU community interest (Habitats Directive 1992, Natura 2000) was evaluated. This evaluation used the existing forest management system and two levels of ICP Forests monitoring as sources of data on criteria such as the size of the habitat, tree composition, developmental phase and stand regeneration, growing stock and increment, deadwood, and the level of naturalness of the habitat.

In total, Natura 2000 forest habitats in Slovenia represent almost one-third of all forest areas. The prevailing forest habitat types are Illyrian *Fagus sylvatica* forests, Luzulo-Fagetum beech forests and Illyrian oak-hornbeam forests. Considering the direct influence of human activities and potential effects of climate change, the floodplain and lowland forests of alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior*, riparian mixed forests of *Quercus robur* and other broadleaves, as well as Illyrian oak-hornbeam forests, are among the most threatened forest habitat types. Taking into account the small area of this habitat type and the set of different threats, the

priority habitat types of Tilio-Acerion forests of slopes, screes and ravines, (sub-) Mediterranean pine forests and bog woodland are also endangered.

Despite the large number of factors threatening Slovenian forests, the high level of parameters investigated indicates the favourable conservation status of forest habitat types. However, the additional focus on the EU priority habitat types and on rare habitat types at a national level has been suggested to improve the existing forest management planning system. It has also been recommended that additional forest-relevant indicators specific to particular habitat types should be incorporated into the system.

Habitat types and forest management

Country: Finland

Activity: Boreal forest restoration in the METSO program in Finland.

Key words: Controlled burning, white-backed woodpecker, saproxylic beetle.

Contact: Metsähallitus, Jussi Päivinen, Jussi.Paivinen@metsa.fi

The Forest Biodiversity Program 2002-2016 (METSO-program) is a large conservation program developed in collaboration with a large number of stakeholders representing forestry and the



Controlled burning in boreal forests (photo: Markku Nironen)

environment. The program has been approved by the Finnish government and is managed by the Ministry of Environment and the Ministry of Agriculture and Forestry. Several organisations participate in the implementation of various activities. The program aims to halt the ongoing decline in the biodiversity of forest habitats and species and to establish stable favourable trends in Finland's forest ecosystems, especially in Southern Finland. The key objective of the program is to ensure that Finnish forests continue to provide suitable habitats for red-listed and declining species.

National parks and other strictly protected areas form the core of Natura 2000 areas in Finland. These areas are mostly managed by Metsähallitus, the national organisation responsible for state-owned areas in Finland. One of the various duties of Metsähallitus is to implement several components of the National Forest Biodiversity Program.

There are many formerly managed commercial forests in several protected areas in Finland. The ecological condition of these areas can be improved by different restoration methods. Effective fire control in Finland has prevented almost all wild forest fires that were previously an integral part of boreal forest dynamics. Similarly, forest management has not aided the development of deadwood in commercial forests. Therefore, the most important methods of forest restoration in Finland are controlled burning, adding to the volume of dead and decaying wood, and diversification of forest structure by making small openings in coniferous forests in order to create space for saplings of deciduous trees.

Since 2003, 16 000 hectares of former commercial forests have been restored in total. The positive effects of restoration activities on forest biodiversity are evident. Herb-rich forest restoration has positively affected the population of the white-backed woodpecker (*Dendrocopos leucotos*), which is a critically endangered bird species in Finland and also considered an umbrella species. Controlled burning has also significantly increased the diversity of threatened saproxylic beetle and polypore species in restored sites. Increasing the volume of deadwood has had an immediate positive effect on the number of saproxylic beetles and nationally rare beetle species. The more deadwood that has been created, the greater the increase of species richness. These results are based on extensive studies that have been carried out with intensive cooperation with universities and research institutes in order to monitor the effects of restoration on target habitats and species.

The restoration model developed in protected areas has also created interest outside of the protected areas. Prescribed burning is encouraged, particularly in commercial state-owned forests, because of its effects on biodiversity and it has been included in the forest certification criteria.

In future, restoration activities in Natura 2000 areas will be focused on herb-rich forests, which are important habitats for many red-listed species in Finland. In Finnish boreal forests, both controlled and prescribed burning will be continued over larger areas than previous years.



The Lauter river (photo: Pascal Holveck, ONF)

Country: France

Activity: Lauter-Donon LIFE project.

Key words: Habitat quality of western Capercaillie, hydrological functioning, peat bogs, wetlands.

Contact: Office national des forêts, Catherine Biache, catherine.biache@onf.fr and Julien Prinnet, julien.prinnet@onf.fr

The Lauter-Donon LIFE project deals with forest protection in the central Vosges mountains and in the Lauter valley. Four Natura 2000 sites in the Alsace region are involved (3 SACs and 1 SPA). They are located in two different areas in the Lauter valley and on the Vosges mountain peaks. The project aims to balance ecological conservation with human activities.

The project consists of 3 main parts:

- studies: research into habitats and species, definition of optimum management rules (including forest management measures),
- actions: land control, actions in order to improve the conservation status of the most outstanding habitats (such as wetlands) and species management,
- communication: raising awareness of local authorities and the general public.

Project coordinator: Office national des forêts

Partners: Niederlauterbach Commune, Salmbach Commune, City of Wissembourg, General Council of Lower Rhine, Conservatory of the Sites of Alsace

Total budget: 845 429 euros

Financing: Europe, General Council of Lower Rhine, Conservatory of the Sites of Alsace, regional delegation of the Environment Ministry, Water Agency, Communes, Office national des forêts

Duration: 2006-2012

Main achievements and results

Several activities have been carried out so far, for example:

- a study concerning the habitat quality of Western Capercaillie (*Tetrao urogallus*) in the Vosges mountains,
- hydromorphological mapping and a description of municipal forests belonging to Niederlauterbach Commune, Salmbach Commune, and the City of Wissembourg,
- management plans drawn up for several peat bogs,
- restoration actions of the hydrological functioning of the hydrographical intra-forest net,
- restoration of wetlands,
- marking of specific forest biotopes (marks put on trees in order to draw the attention of stakeholders),
- land control.

There are several outstanding actions which will be carried out by the end of the project, such as communication actions.

Positive impacts

The project has provided knowledge which was necessary for the development of the Natura 2000 management plan (DOCOB).

It has also been very valuable for the understanding and cooperation of local stakeholders in Natura 2000. In fact, communes are really involved in the project and in Natura 2000 more generally.

Country: France

Activity: Wetlands restoration.

Key words: Wetlands.

Contact: Office national des forêts,
Anne-Claire Dick, anne-claire.dick@onf.fr

Project coordinator: Office national des forêts

Steering Committee President: Jacques Lalo, representative of the intermunicipal syndicate in charge of the site "Les Saisies"

Partners: University of Savoie, University of Grenoble, Nature Group of Faverges

Presentation of the Natura 2000 site "Les Saisies"

peat bog and lake: This site comprises, over 300 hectares, a great complexity of elementary peat bog habitats, spruce habitats, *Ericacea* heath, lawns and humid meadows. The University of Marseille carried out carbon-14 dating on peats that revealed 8 000 years of vegetation history. Moreover, 290 plant



Wetlands restoration (photo: Maurice Pantaloni, ONF)

species, 316 fungus species and 287 animal species – including wolf, lynx and 11 dragonfly species – are present on the site.

Wetlands restoration: Thanks to aerial photography showing that trees and heath were developing to the detriment of open wetlands, it was decided to undertake restoration actions. These started in 1998 and included the extraction of small spruces, juniper trees, *Ericacea* species and rhododendrons. Big spruces were also removed to another zone.

Re-instating ponds: 64 ponds were also dug in order to recreate open water areas that would provide a habitat for dragonflies, frogs (*Rana temporaria*), toads (*Bufo bufo*), newts (*Triturus alpestris*) and lizards (*Lacerta vivipara*).

Financing: A Natura 2000 contract was signed in 2004 to fund a part of these actions.

Results: Dragonfly populations have increased dramatically in the last few years and 4 new species have been observed on the site.

Country: Lower Saxony (Germany)

Activity: Renaturation of bog woodlands in the Solling forests.

Key words: Habitat type 91D0, sphagnum species, bogs and fens.

Contact: Lower Saxony State Forests, Christian Boele-Keimer, Christian.Boele-Keimer@nlf.niedersachsen.de

In former times, bog woodland represented a typical ecosystem within larger forests in Northern Germany. However, bog woodlands have been affected by human intervention more than other ecosystems and what is left today is mostly endangered and ineffective. Due to its importance for the climate and for various species, there is a strong need for action. Therefore, if funding is available, the Lower Saxony state forests have set themselves the target, within their multifunctional and sustainable forest management (LÖWE-Programm), to restore the water balance in drained bog woodlands. Several renaturation projects were successfully implemented during the last years in Niedersächsische Landesforsten (NLF).

In order to guarantee the efficient use of funding, precise selection and management planning was necessary. The “Decision Support System for the

Protection of Bog Woodlands” (DSS-WAMOS) was developed and used by NLF with funding from the German Environment Foundation.

In 2007, the NLF specialist on forest ecology, Henning Städtler, developed the idea of renaturing two bogs and bog woodlands in the Solling forest in the low mountain range of Lower Saxony. The so-called “Teichwiesen” is located within the Natura 2000 site “Ilme”. The Teichwiesen can be described as a complex of different fen and bog types. Today, the bog is up to two metres deep in some parts. In 2008, the spruce on large parts of the Teichwiesen project area (15 hectares) was removed. The main drainage line was filled with sawdust and covered with earth (“Zuger method”). The project led to a rapid change in the landscape. In order to explain the intensive felling, NLF erected information panels. Since 2008, regular monitoring of the bog and the species inhabiting it has been carried out by NLF.

In “Heidelbeerbruch” (project area 50 hectares) the spruce was heavily thinned rather than felled. A more intensive felling would have affected the characteristic landscape and endangered the stability of the bordering forests. The main drainage lines were also filled with sawdust. The “Heidelbeerbruch” is in a far worse condition than the “Teichweisen”. The bog is less deep and a dense drainage line network still exists. Nevertheless, renaturation has encouraged positive development. Birch, as well as many other typical species, have spread. Damp soil can now be observed along the former main drainage lines. However, several further potential measures are still planned for the project area.



Renaturation of bog woodlands (photo: Henning Städtler)

Therefore, NLF financed a study on the further renaturation potential within the Solling bogs and fens (KÜCHLER 2011). The study shows the high potential not only in the existing bogs and fens but also in currently managed forest stands.

It would have been impossible to finance the two projects solely with funding from NLF. Luckily, strong financial partners were found and practical measures were supported by local environmental organisations. Future work will depend on whether NLF can find partners or funding possibilities. From NLF's point of view, the initial priority is to gather knowledge on bog renaturation and then use this knowledge to develop effective and efficient methods.

Country: Lower Saxony (Germany)

Activity: Decision guidance for the management of oak habitat types within Natura 2000 sites of the Lower Saxony State Forests (NLF).

Key words: Oak habitat types 9160, 9170, 9190.

Contact: Lower Saxony State Forests,
Christian Boele-Keimer,
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NLF's Natura 2000 sites include a high percentage of oak forests, particularly in the North German Lowlands. On most sites, oak is less competitive than beech which, together with its average age being greater, makes it quite challenging to protect and continuously rejuvenate oak. Since oaks are not able to disseminate over long distances, it is necessary to rejuvenate oak in situ. Therefore, NLF and the technical authority for nature protection have developed a method to ensure the favourable preservation of oak habitat types, according to the Habitats Directive which addresses characteristic species of fauna and flora.

Quercus robur and *Quercus petraea* require a lot of light and have a low tolerance for canopy cover. From the second vegetation period at the latest, any restricted solar radiation leads to low competitive capability against shade-tolerant trees within the rejuvenation. A constant single tree harvest over a long period will aid the shade-tolerant trees while wide shelterwood systems or clear-cutting will aid the oak. Taking the rejuvenation strategy of the oak into account, NLF preferred different approaches to rejuvenate oak habitat types.

Sub-Atlantic and medio-European oak or oak hornbeam forests of the *Carpinion betuli* (1960):

This habitat type usually contains a high percentage of shadow tolerant trees with a high competitive capability and which fructify earlier than oak. Even after moderate thinning, many oak stands are fully rejuvenated long before the oak reaches its exploitable size of 70 to 80 cm in diameter at breast height. This makes natural rejuvenation of the oak impossible. Therefore, the canopy cover should be retained for as long as possible. If a rejuvenation exercise is planned, the oaks should not undergo single tree cutting, but rather small clear cuttings of 0,5 to 1,0 hectares. A few vital trees need to be left to enable species protection in the stand. If the area of habitat type is small, or of higher importance for nature protection, the size of the small clear cut should be reduced.

***Galio-Carpinetum* oak-hornbeam forests (9170):**

Most of the present stands of the habitat type 9170 are of anthropogenic origin. They have usually replaced rich beech habitat types (9130, 9150). *Galio-Carpineti* are highly important for species protection. For this reason, a rejuvenation – if necessary – should be limited to an area of a maximum of 0,5 hectares.

Old acidophilous oak woods with *Quercus robur* on sandy plains (9190):

The vegetation of this habitat type is usually poor. If shadow tolerant trees do not yet exist within the rejuvenation stratum, there is still a chance for natural rejuvenation of the oak. The first step in a mast year is for all shadow tolerant trees of the main stratum to be removed over an area of 0,5 to 1,0 hectares. After the mast year, the second step is to



Oak habitat in Lower Saxony (photo: NLF)

reduce the canopy cover of oak by 30-50%. Then the area needs to be fenced. If the mast was successful, the remaining shelter must be felled with the exception of habitat trees. If the natural rejuvenation fails, the fenced area will be used for planting with oak. In oak stands of small economic worth, this strategy should be reduced to moderate single tree harvesting in order to protect the current conservation status. Former pastoral forests should be used and rejuvenated in the traditional way.

Species protection: Old oak forests are of high importance for endangered species. Before cutting an old oak, the forester and woodworker must check any holes in the tree for woodpeckers, bats and beetles. In NLF, every management measure carried out on old oak stands must be discussed with the forest ecology forester, a specialist located in each forest division.

Country: Slovak Republic

Activity: Conflict between Natura 2000 and orderly forest management.

Key words: Spruce forests, bark beetle, forest protection.

Contact: Lesy Slovenskej Republiky, Frantisek Kral, F.Kral@lesy.sk

These days, the most serious problem affecting Slovakian forestry is the considerable mortality of spruce forests. One of the primary reasons for this was the 2002 change in Slovak legislation when EU directives concerning nature and landscape protection were incorporated into the new law.

The new method of implementation allowed the State Administration Authorities for the Protection of the Environment, as well as the State Nature Conservancy of the Slovak Republic (ŠOP SR), and NGOs, to have a say in the decision-making process about the scope and quality of restoration of windbreaks that came down in the storms of November 2004 (5,4 million m³ of damaged wood).

The State Administration Authorities for the Protection of the Environment, under pressure from ŠOP SR and NGOs, has not enabled companies to manage the forests according to Natura 2000 guidelines. This prevented the continued rehabilitation of spruce damage and subsequent protective and defensive measures against bark beetles. It allowed the bark

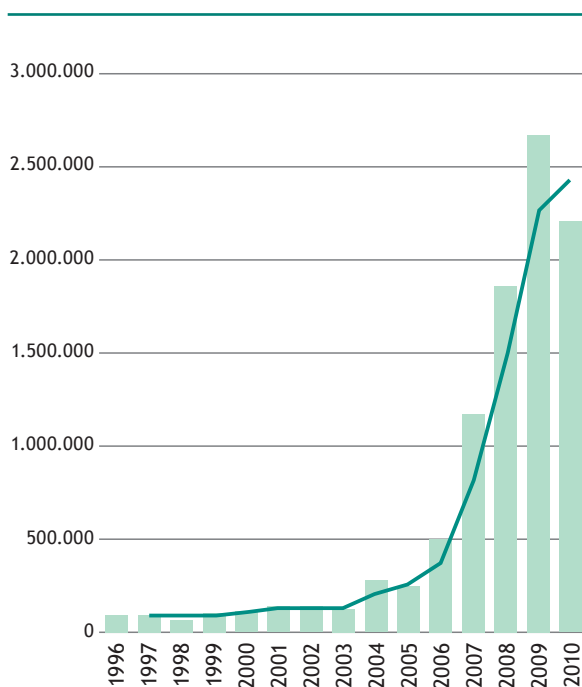
beetle population to increase to critical levels, leading to the mass defoliation of spruce forests in the Slovak Republic.

The Bystrá valley is also in a critical state. It is managed by LESY SR. It is a state-owned area of around 1 555 hectares, mostly covered by forest. The area is part of the SPA Nízke Tatry (Low Tatras), the SUEV 0302 Ďumbierske Nízke Tatry and SKUEV 0310 Kráľovohoľské Nízke Tatry. According to the forecast, 85% of the area must contain Natura 2000 habitat types (9410 32%, 9130 23%, 4070 17%, 9110 9%).

In November 2004, 13 900 m³ of windbreaks (mainly spruce) came down. In 2005, the State Administration Authorities for the Protection of the Environment applied Natura 2000 guidelines and banned the harvesting of 6 332 m³, mainly on the ridges. This site has very poor access via forest roads, therefore it was accessed by air (helicopter). In March 2005, an application was made for the approval from the State Administration Authorities for the Protection of the Environment for the construction of a forest road 12 kilometres long. In May 2006 the Slovak Republic's Ministry of Environment decided not to approve the application, due to potential damage to habitats and species of European importance. From 2007, the

Figure 3: Reported bark-beetle outbreaks in LESY SR State Enterprise forests

Source: LESY SR, State Enterprise, 2011



volume of windbreaks was expanded which led to a further 17 500 m³ of bark beetle damage. As set out by the Nature Protection Act, in 2007, it was not necessary to seek approval for dealing with pest outbreaks in habitats of European Importance. Therefore, in August 2007, a second application was made to the State Administration Authorities for the Protection of the Environment for the construction of six forest roads with a length of 15,02 kilometres. It wasn't until March 2009 (1,5 years later), that the SR Ministry of Environment refused the application, again based on Natura 2000 guidelines. By 2010, the bark beetle outbreak had spread to critical proportions (about 250 000 m³) and there was widespread mortality of spruce forests in this area. In March 2011, LESY SR, again applied for permission to build 12 forest roads with a length of 23,16 kilometres to enable outbreak management. In November 2011, the Ministry of Environment informed LESY SR that the construction of forest roads is subject to Environmental Impact Assessments (EIA). However, the same rules have not been applied across the wider area.

It is also interesting to see how the opinions and statements of ŠOP SR developed. At first, they refused an application for the construction of forest roads. The second application was approved, and then the third was refused. Overall, the various negotiations have had a negative effect on the non-governmental organisations (FSC Slovakia, SOS, BirdLife Slovakia). It also appears that all parties involved had other interests.

Finally, Figure 3 demonstrates how LESY SR, a state forest management enterprise, was dealing adequately with extensive windbreaks in 1996, before the implementation of the European Directives in 2006.

Country: Sweden

Activity: Lake Mälaren Inner archipelago – restoration and management (LIFE07 NAT/S/000902 LIFE+ MIA).

Key words: Habitat types; 9010, 9020, 9050, 9070, 6410, 6270, and 6530.

Contact: Sveaskog, Helena Dehlin, Helena.Dehlin@sveaskog.se

Sveaskog is part of an extensive nature conservation project in mid-Sweden, the Lake Mälaren Inner Archipelago LIFE-Nature project. The project is a collaboration between Sveaskog, Upplandsstiftelsen

and the County Administrative Boards of Västmanland, Uppsala and Södermanland. Additional co-financiers are the Swedish Environmental Protection Agency, the city of Västerås and the municipalities of Enköping, Håbo and Köping. The project includes 42 Natura 2000 sites in the Mälaren lake area and is running between 2009 and 2014, with a total budget of about 8 million euros.

Sveaskog's management concentrates on the Ridöarkipelagen (SE0250008) and Ridö-Sundbyholmsarkipelagen södra (SE0220077) sites, which together form a nature reserve and the Ecopark Ridö-Sundbyholmsarkipelagen.

The sites are characterised by a long history of both broadleaf and deciduous trees and forests containing a rich diversity of endangered species. One of the main threats has been the loss and fragmentation



Selective cutting at Lake Mälaren (photo: Helena Dehlin)



Lake Mälaren (photo: Helena Dehlin)

of habitats due to the growth of commercial forestry during the 20th century, as well as the increase of spruce, particularly Norway spruce, in the landscape. Another threat has been the gradual reduction of management of pastures and meadows, resulting in considerable and harmful growth.

The main objective is to achieve a favourable conservation status for the rich diversity of species and habitat types, focusing on both broadleaf and deciduous trees and forests. This is accomplished by preservation and restoration of habitats, carried out with carefully managed actions. Another focus is to promote the general public's understanding of nature conservation, by offering different kinds of information and activities for visitors. Main actions include:

- selective cutting and ringbarking in woodlands,
- clearing of undergrowth and/or tussock cutting and/or stump grinding in meadows and pastures,
- creating facilities for livestock husbandry and management, e.g. building of fences,
- creating facilities for visitors, information materials, demonstration sites, and organisation of excursions.

Management also includes creating work plans, monitoring, calls for tenders and networking. Over the duration of the project, Sveaskog will carry out actions over 500 hectares of forest and grassland. The total area that will be managed within the project period for all 42 sites is about 2 100 hectares.

Species and forest management

Country: Baden-Württemberg (Germany)

Activity: Concept for the conservation of old trees and deadwood in managed forests (Alt- und Totholzkonzept).

Key words: Forest biodiversity, habitat trees, habitat tree groups, deadwood, forest refuges.

Contact: ForstBW, Nicole Schmalfuß, Nicole.Schmalfuss@rpf.bwl.de

Habitat trees and a certain amount of deadwood are both essential elements for forest biodiversity. They are crucial parameters for evaluating the preservation status of Annex I forest habitats in SACs. Furthermore, both structural elements are essential

for the protection of a whole number of Annex II and Annex IV woodland species and other rare or protected species, among them many birds. Whereas the Annex II species will be dealt within SAC management plans, it is necessary to protect Annex IV species and other protected species wherever they exist, within and outside of SACs.

Objectives: In 2008, ForstBW decided to develop a concept for the conservation of old trees and deadwood (Alt- und Totholzkonzept, AuT-Konzept) that sufficiently fulfils the requirements of a good preservation status of Annex I forest habitats and of certain Annex II and Annex IV species, fulfils the requirements of harvesting safety and follows economic principles, can be integrated in standard forest management measures and can be monitored and readjusted according to monitoring results (controlling).

Concept development: With so many, objectives some of which contradicted each other, it became obvious that the concept had to be elaborated in an interdisciplinary workgroup, consisting of several experts from both the nature conservation and forestry sectors such as silviculture, conservation law, harvesting safety, economics and auditing.

The AuT-Konzept consists of three protection elements:

1. Single habitat trees with crucial structures such as large woodpecker holes, eyries or other known essential breeding sites of protected species to be marked and protected.



Habitat tree (photo: Linda Heuchele)

2. Groups of around 15 habitat trees to be identified, marked, mapped, and not harvested. This would enable them to grow large and old and develop a whole range of habitat structures such as crown breaks or wood decay and finally become deadwood. These 'habitat tree groups' are identified in all older stands with an average of one group per three hectares.
3. Small forest stands – the so-called "waldrefugien" – of high protection value to be set aside completely so that they can develop untamed and decay naturally.

The result is a diverse collection of old trees and deadwood in managed forests that functionally interconnect larger existing strict forest reserves. It contributes to the further ecological improvement of natural forestry.

Implementation: Since 2010, the concept for the conservation of old trees and deadwood has been integrated into standard forest management measures over the whole of Baden-Württemberg's state forest, in and out of SACs. Municipal and private forest owners are not required to implement the described old and deadwood concept. Nonetheless, some do so, especially within SACs, because it has proven to be an operational conservation instrument. It fulfils the old and deadwood standards for Annex I forest habitats, and for many Annex II and VI species, while taking into account harvesting safety and economic principles. Other forest owners will follow as soon as they receive financial compensation for setting aside usable and marketable wood, e.g. as a result of increased EU financing.

http://www.fva-bw.de/publikationen/sonstiges/aut_konzept.pdf

Country: Czech Republic

Activity: Support and conservation of birds by Lesy ČR.

Key words: Birds.

Contact: Lesy České republiky, Josef Svoboda, svoboda@lesy-cr.cz

An integral part of sustainable forest management by Lesy ČR is respecting the occurrence of protected species. Presence and density of populations of some species (incl. Natura 2000 bird species in some SPAs) have been considered as one of the results of the long-term activities of Lesy ČR.

In the Soutok – Tvrdonicko SPA, foresters and members of local NGO CSOP Břeclav have been cooperating continuously since 1984. Several thousand nest boxes were installed during that time. At present, conservationists take care of around 2 000 boxes, financed by Lesy ČR. Nesting boxes in local floodplains and pine forests significantly influence the composition of the local fauna and not just the birds. In 2010, birds settled here in 1 600 boxes. Other bird boxes were settled by 19 colonies of bats while other boxes were inhabited by yellow-necked mice, hornets, wasps, solitary bees, bumblebees and ants lived. All of these animals, of course, greatly increase the biodiversity and/or help in the fight against forest pests. What makes this long-term activity unique is the composition of the bird inhabitants of the boxes. In these bird nest boxes exists perhaps the densest population over the whole of the Czech Republic of one of the rarest Natura 2000 species – the collared flycatcher (*Ficedula albicollis*). It is also worth mentioning the populations of other avian residents – for example, wrynecks (*Jynx torquilla*).

In the Jizerské hory SPA, local foresters have actively supported the occurrence of rare and protected species of owls for more than 30 years. Over time, several hundred nest boxes for Tengmalm's owl (*Aegolius funereus*) and tawny owl (*Strix aluco*) have been installed. In collaboration with NGO Ekostrix, regular care of nesting boxes and monitoring of their impact on the local population of owls has been carried out. While there may have been variations in



Black Stork (photo: Libor Dostal)

the number of successful nestings over individual years, support for these species has resulted in the stabilisation of the local populations of both owls and the inclusion of Tengmalm's owl as a protected species in this SPA.

The importance of owls as key players in the protection of forests from damage by small rodents has been confirmed, for example, by the results of the project "The Use of Predators in the Biological Control of Small Rodents in SPAs in the Ore Mountains" (2007 – 2010). This project was financed by Lesy ČR Grant Service and carried out by the Czech University of Life Sciences Prague. The project, which tested, among others, new methods of research of food consumption and composition (using nest cameras), brought not only new insights confirming the essential importance of Tengmalm's owl in the regional biological control of small rodents, but also confirmed the importance of the long-term support of this species by the installation of nesting boxes.

Foresters from Lesy ČR have been involved in the mapping and protection of rare bird species (falcons, black storks, etc.). For example, in 1994 and 2004 they contributed to the largely positive messages from the periodical decennial mapping of nestings of black storks across the country. The third periodical mapping is planned for 2014.

Lesy ČR produces nesting boxes, feeders, bat boxes, and bumblebee nesting boxes in the Seed Production Plant in Týniště nad Orlicí (www.semenarskyzavod.cz/budky/Stranky/default.aspx).

Boxes are installed and maintained under close cooperation with NGOs, for example with the Czech Union for Nature Conservation (CSOP, <http://www.csop.cz/>).

Country: Ireland

Activity: Poor consultation can affect timber production plans.

Key words: Hen harrier, ban of all forest operations.

Contact: Coillte, Aileen O'Sullivan, aileen.osullivan@coillte.ie

The hen harrier (*Circus cyaneus*) is a bird of prey listed in Annex I of the EU Birds Directive. The bird lives in low-lying hills, and statistics show that the species

has benefited from the spread of plantation forests in several upland locations during the 20th century. The birds hunt for prey over open habitats but, in Ireland, research evidence shows their preferred nesting habitat to be in young, pre-thicket commercial plantation forests. In 2009, a complaint was sent by an NGO to the EU, reporting threats to the conservation of the hen harrier in Ireland. The complaint listed forestry as a threat to the species yet, despite more than ten years of detailed monitoring and research data on Irish harrier populations, there is no scientific evidence that forestry activities are causing direct negative impacts on hen harrier conservation. Despite the lack of evidence, the National Parks and Wildlife Service researched and designed the following restrictions on forest management in hen harrier SPAs:

- Exclusion zones were mapped around known nest site locations – these zones are very large, with a 1,2 km radius;
- Within these exclusion zones, there is a total ban on all forest operations during the hen harrier breeding season (31 March to 15 August).

These rules were presented to Coillte without prior consultation in January 2011. This meant there were only 2 months lead-in time before the measures came into force, which caused major disruption to Coillte's timber supply plans in 2011.

The hen harrier numbers in Ireland have not shown a clear increase or decrease in recent years. While there have been increases and decreases in numbers at individual locations, the overall numbers seem to have stabilised. Also, the species is listed as "Amber" by BirdWatch Ireland – which means the species is of "medium" conservation concern. It is not a red-listed species. Yet, it is the subject of the most stringent protection measures of any species in the country.

In Coillte's perspective, this has been a very negative experience because:

- There was no consultation prior to introducing stringent protection measures,
- There is no total ban on other land uses within the SPA so the forestry protection measures cannot be effective.

The conclusion to be drawn appears to be that this issue is politically driven and not science-based.

Country: Latvia

Activity: Lands managed by EUSTAFOR member.

Key words: Ecoforest, green infrastructure, high conservation value lands.

Contact: Joint-Stock Company Latvijas Valsts Meži, Ieva Rove, I.Rove@lvm.lv and Laila Šica, L.Sica@lvm.lv

Background and objectives

Functional management of forests covers various aspects. The basis of long-term sustainable development is to balance the interests of nature conservation and economics. Nature conservation and maintenance of biological diversity take an important place within the strategic and tactical planning of lands managed by Joint-Stock Company Latvijas Valsts Meži (LVM).

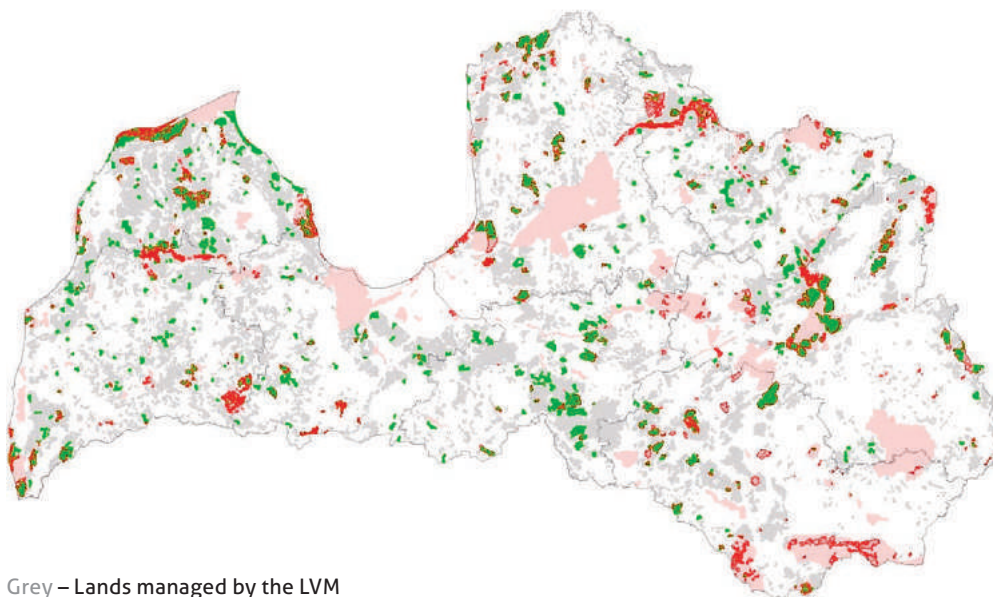
Since the establishment of LVM in 1999, great attention has been dedicated to maintaining the values of nature. Since 2010, further steps towards

integrated management have taken place. The new nature conservation instrument in LVM-managed lands is of high importance for biological diversity. Ecoforests have been established where, in addition to nature protection measures which are binding at state level, additional voluntary measures to maintain rare species and habitats have been adopted. The development and management of ecoforests are the first steps in the Baltic region towards implementing the conservation of species and habitats of EU importance outside the Natura 2000 network. It has developed a basis for further developing green infrastructure and connectivity among core areas as well as safeguarding and minimising negative impacts due to possible fragmentation.

Results

At present, 456 ecoforests have been established with a total coverage of 261 266 hectares (Figure 4.) Since 2011, special management plans and a monitoring programme of species and habitats have been carried out to ensure surveillance of nature values in Ecoforests.

Figure 4. Ecoforests in the LVM managed lands.



Grey – Lands managed by the LVM

Green – Ecoforests in the LVM managed lands

Red stripes – Natura 2000 sites in the LVM managed lands

Pink background – Natura 2000 sites outside the LVM managed lands.

Country: Scotland (United Kingdom)

Activity: Management of the two neighbouring forest blocks Glenmore and Inshriach, both part of Cairngorms SAC (2234 ha) and SPA (2087 ha).

Key words: Dry heaths, clear water lakes or lochs, Green Shield-moss, high altitude plant communities, Capercaillie, Scottish crossbill, Caledonian forest, juniper on heath, otter.

Contact: Forestry Commission Scotland, Les Bryson, les.bryson@forestry.gsi.gov.uk

Glenmore Forest and Inshriach Forest (both managed by Forestry Commission Scotland - FCS) sit within the same geographic zone, have complementary objectives and are only separated by 7,5 km. The SAC designation covers 196 hectares of Inshriach and the SPA only borders the forest block. However, in January 2013, Scottish Natural Heritage (SNH) indicated that, given the perilous condition of Capercaillie, they wish to extend the scope for buffering the SPA to cover much of this forest area, implying that appropriate assessment would have to be applied to all forest planning in a largely undesignated forest.

Over the last twenty years, the management of Glenmore has changed from a broad single focus on the production of commercial softwood plantations to a series of conservation-led objectives. The first Forest Design Plan (FDP) was prepared in 1994 and it replaced former production forecast-driven plans.

The FDP was last fully reviewed and approved in 2006. It is due for another such review in 2016. As an entirely consultative planning process, it worked well for Glenmore, allowing FCS to engage with stakeholders over the full range of agendas affecting the forest area. The FCS management objectives for Glenmore already largely complimented those of the Natura 2000 designations, so meeting the needs of Natura 2000 were relatively straightforward. The FDP was also subject to an appropriate assessment. The FDP is also advised by the FCS Designated Sites plan, which specifically addresses the conservation objectives of 5 Sites of Special Scientific Interest that include parts of Glenmore. The achievement of favourable status is used as the key driver against which to test management objectives and decisions. Agreed management actions are now also easier to plan into the FCS business plan since the development of a tactical planning tool based on

a Geographic Information System (GIS). This helps FCS demonstrate that it has the resources to deliver actions. This form of plan is still maturing in its application and later versions for other designated areas now encompass all designations.

The management of people and forest recreation is becoming a greater concern to the competent authority, SNH and the groups who advise it.

Glenmore is a popular tourist destination. Conservation groups are becoming increasingly concerned about the influence of public access on capercaillie and seek to use Natura 2000 to justify containment of access opportunities in an otherwise open landscape. Research has been commissioned at a local level that seeks to prove the relationship between access and species disturbance.

This poses a considerable management challenge, as FCS supports and promotes open access on the national forest estate. Additionally, the relatively positive species results recorded by FCS do not explain why capercaillie is declining more quickly in areas of pine forest with significantly less public access.

It is against this backdrop that SNH has started talking to FCS about extending the influence of the Natura 2000 designation to the undesignated forest of Inshriach, with a specific focus on public access. While acknowledging the value of buffering designated sites, the application of the buffer at Inshriach could extend up to 4 km. The consultation over this process is still ongoing at the time of writing. The management objectives for Inshriach are focused more on species conservation and timber production and are therefore compatible with the wider landscape. Public access is a much lower priority in this forest, given its detachment from large communities and the lack of any private commercial tourist-based businesses in the immediate environs. The extension of the appropriate assessment process brings with it additional consultation, planning and administration which FCS is keen to avoid if possible.

Country: Scotland (United Kingdom)

Activity: Conservation of great crested newts.

Key words: Amphibian assemblage.

Contact: Forestry Commission Scotland,
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Great crested newts at Turflundie Wood

The isolated and relatively small population of great crested newts (GCN) at Turflundie Wood (part of Pitmedden Forest) is stable and increasing in extent if not in size. The increase is largely due to the creation of a network of breeding ponds created by Forestry Commission Scotland. It is likely that this population of newts would have died out if these ponds were not built following the gradual successional closure of the breeding habitat on the two original ponds.

Designation of this site as SAC has meant that the emphasis on forest management has been swayed more towards conservation of natural heritage but there is still significant recreational and productive interest and opportunity in the forest.

Minor adjustments to some recreational practices (e.g. dogs swimming in ponds are discouraged and construction of off-road bike features is not authorised) has been necessary but generally there has been an opportunity to develop recreation, particularly biking, without damaging or disturbing the newts.



Monitoring of the conservation status of great crested newts (photo: Forestry Commission Scotland)

Forest operations

Forest operations and productivity experience some constraints, but this has not been significant. Harvesting continues using less intensive silvicultural systems and generally restocking will be achieved by natural regeneration or will include the planting of native (wet) woodland species in a network primarily established to improve habitat.

During operations, opportunities to improve newt habitat will be pursued. These will include constructing new ponds where appropriate and creating good sites in which newts can overwinter (hibernate).

Forest Planning

When planning the forest area of the SAC there is a broad acknowledgement of the value of networks of wet ground habitats (these will result following removal of some areas of Sitka spruce in hollow damp locations) and shifting the emphasis from a clear-fell regime to one of continuous-cover forestry using less intensive silvicultural systems.

In general, the population of GCN is considered to be robust and, although relatively small, more secure than previously when they only bred in two ponds that were becoming restricted due to vegetational succession. This position is principally thanks to the possibility to accommodate their conservation within the normal process of forest management.



Great crested newts (*Triturus cristatus*) (photo: Forestry Commission Scotland)

7. CONCLUSIONS



Roland Kautz
Österreichische Bundesforste AG

"Compared with many other human activities, European forestry has the merit of having contributed to safeguarding a relatively rich biodiversity. Since the 1990s, European forestry has been actively developing and applying sustainable forest management criteria that specifically include the conservation of biodiversity."

This statement, made by a European policy developer in an earlier chapter, clearly highlights that European forest management has contributed to the implementation of Natura 2000 from the very beginning. This means that both the anticipation of political objectives and day-to-day forest management formed, and continue to form, the foundations of the implementation of Natura 2000.

State Forest Management Organisations (SFMOs) under the umbrella of EUSTAFOR manage approximately one-third of the European Union's forested area. This means that these organisations are key enablers when it comes to the management planning and mapping of Natura 2000 sites in forests once they have been selected. For a long time, policymakers and developers did not recognise the importance of perceiving SFMOs as an integral part of Natura 2000 and forestry systems and not simply as stakeholders or in a policy context. If forest managers are not included in the development

of operational measures designed to achieve political objectives, systems are likely to fail. As a consequence, in future, it is proposed to integrate those who put into practice such operational measures.

The development of Natura 2000 took place during a period when society was adjusting to new political concepts which affected both forestry and its management. This meant that the debate about how to use natural resources, with or without human influence, and how to manage them was, and still is, under discussion. There is evidence that, in its initial stage, the Natura 2000 regime was used as a platform by political interest groups to create power, legitimacy and urgency for the evaluation of established natural resource management practices and systems.

Aside from the political debate, it must be recognised that it is forest owners and forest managers who are fully responsible for treating forest ecosystems in such a way that a well balanced and sustainable utilisation of forest resources and forest ecosystem services can be achieved. Actions also need to be based on several legal requirements as well as ensuring

social, economic and ecological benefits when managing forest properties. Their remit entails the consideration and management of a wide variety of options within forest management on a daily basis. Therefore, forest owners and forest managers are very experienced in weighing up various alternatives and deciding between conflicting options.

If, at any point, external stakeholders restrict the possibilities of carrying out property rights, political policy developers and related decision-makers should be aware that any restrictions will have to be compensated to match the level of economic impact on the forest manager or forest owner. Thus far, any such compensation has been either insufficient or completely non-existent.

At the same time, an increased number of expectations are being put on forest owners and forest managers to serve the Natura 2000 system without any commitment to provide compensation. All associated measures taken have therefore resulted in reluctance towards, and sometimes refusal of, the initiative which could take years to put right. But it is not just compensation measures which lack appropriate funding.

As shown in Chapter 4, "Costs and Funding", costs related to Natura 2000 such as those for the administration and management of Natura 2000 sites, establishment and control of management plans including the ongoing monitoring of habitats and species, and specific projects and measures, have been neglected with the consequence that necessary measures are either not taken or they become the responsibility of others, mainly forest management bodies. The conclusion is that the allocation of Natura 2000 funding must be approached in a professional and serious manner, otherwise the initiative risks remaining nothing more than a political objective.

As highlighted in this booklet, state forest management has been dealing with nature conservation issues for many years and the

integrative approach of sustainable forest management has been contributing to biodiversity in forest ecosystems for decades. Thus, SFMOs have successfully integrated Natura 2000 management into their daily operations and management planning.

The case studies provided in this booklet demonstrate the variety of interventions carried out by SFMOs in the different categories of the Natura 2000 system. Across several biogeographic regions, EUSTAFOR and its member organisations have proven their ability to address Natura 2000 objectives and to implement new systems. They have provided a competence base that will assist the further development of Natura 2000 implementation and is ready to support political and institutional decisionmakers.

This booklet also highlights the various approaches of Member States in the implementation of Natura 2000 directives and shows the different handling of the political scenery and related complexities within the European Union.

Aside from other day-to-day nature conservation activities, it is the ongoing day-to-day performance of SFMOs that leads to forest ecosystems being designated as Natura 2000 sites. Therefore, any planned forest management will also provide the future framework within which to keep these sites in a favourable conservation status.

The recognition that management of forests is the full responsibility of forest owners is important when it comes to the further integration of Natura 2000 into the yet-to-exist legal framework. Consequently, it is important for forest managers to be involved from the very beginning in any further development designed to realize goals and achieve synergies.

In future, State Forest Management Organisations will also see it as their responsibility to ensure that a well-balanced range of economic, ecological and social benefits can be derived from these resources.

MEMBERS OF THE WORKING GROUP ON NATURA 2000

This working group was established by EUSTAFOR's 2011 General Assembly to support and follow the discussion on Natura 2000, especially the guidance document on Natura 2000 and the new guidelines on forestry and Natura 2000.

The working group was supported by colleagues from all EUSTAFOR members, who answered a questionnaire and provided various case studies that show how differently, but nevertheless dynamically and professionally, Natura 2000 is implemented in state forests throughout Europe.

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Working Group on Natura 2000 (photo: Roland Kautz)



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EUSTAFOR IN SHORT

EUSTAFOR's members, European State Forest Management Organisations, are dynamic and capably managed entities. They are entrusted by European governments to effectively manage state forests - one of Europe's greatest natural resources – for the benefit of society at large.

EUSTAFOR currently has 35 members in 24 European countries, who represent around one third of the EU forest area, including the management of 14 million hectares of protected and protective forests and 8 million hectares of forests designated as Natura 2000 areas. Their annual harvest amounts to about 130 million m³ of round timber and together the member organisations employ more than 100 000 people.

The goal of EUSTAFOR is to promote the common interests and sustainable development of state forests in the EU, supporting its members to maintain and enhance economically viable, socially beneficial, culturally valuable and ecologically responsible sustainable forest management.

EUSTAFOR – A Strong Voice for the Sustainable Use of Forest Resources

EUSTAFOR member organizations provide valuable, professional and experience-based knowledge about the sustainable and multifunctional management of state-owned forests in order to support European and pan-European forestry-relevant policy objectives, particularly in terms of achieving Europe's sustainability strategies.

EUSTAFOR promotes the active use of forest resources, which enables the provision of a wide array of renewable raw materials and related ecosystem services as a relevant basis for the bioeconomy.

