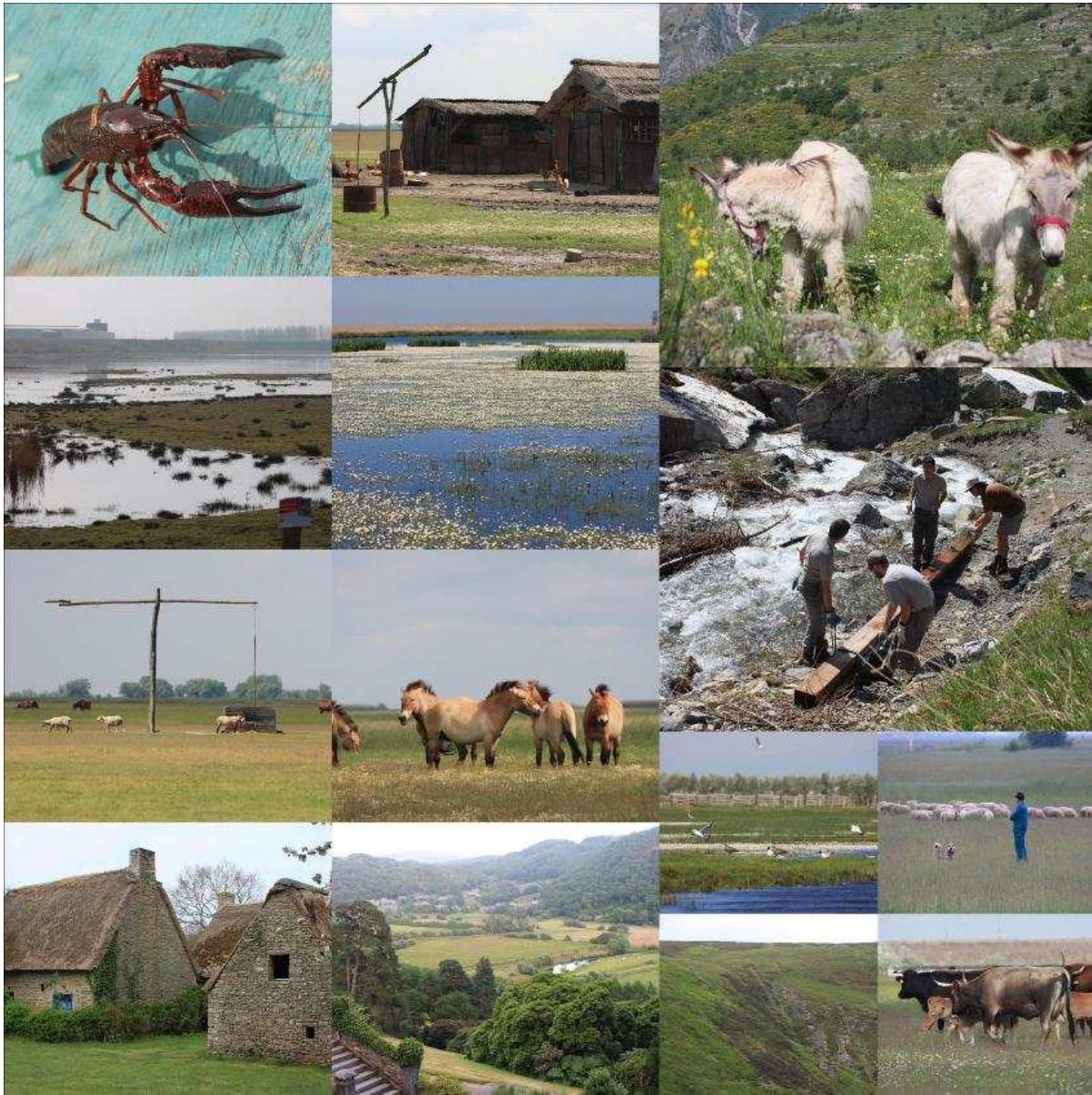


## SELECTED ISSUES CONCERNING MANAGEMENT OF EUROPEAN PROTECTED AREAS ESPECIALLY NATURA 2000 SITES



### Report of Study Visits - 2010

Natural Heritage Scholarship funded by The Alfred Toepfer Foundation  
F.V.S. awarded by the Europarc Federation in 2009



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*Experience is a child of Thought and the Thought is a child of  
Action. Experience is a teacher of all things. Man can learn nothing  
from the books.*

*Benjamin Disreali*

## **Thanks and Acknowledgements**

I would like to thank to The Alfred Toepfer Foundation F.V.S and the EUROPARC Federation for this outstanding opportunity to visit these different parks and protected areas in Europe and to meet so many wonderful people.

Thanks a lot to all institutions who hosted me and to all people who I had the pleasant possibility to meet during my trips.

Especially: Caroline Wilson, Luc van Assche, Matthieu Marquet, Szilagyi Gabor Levente, Hervé Parmentier, Chris Smith and Benjamin Callard.

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## Map of the different parks in Europe

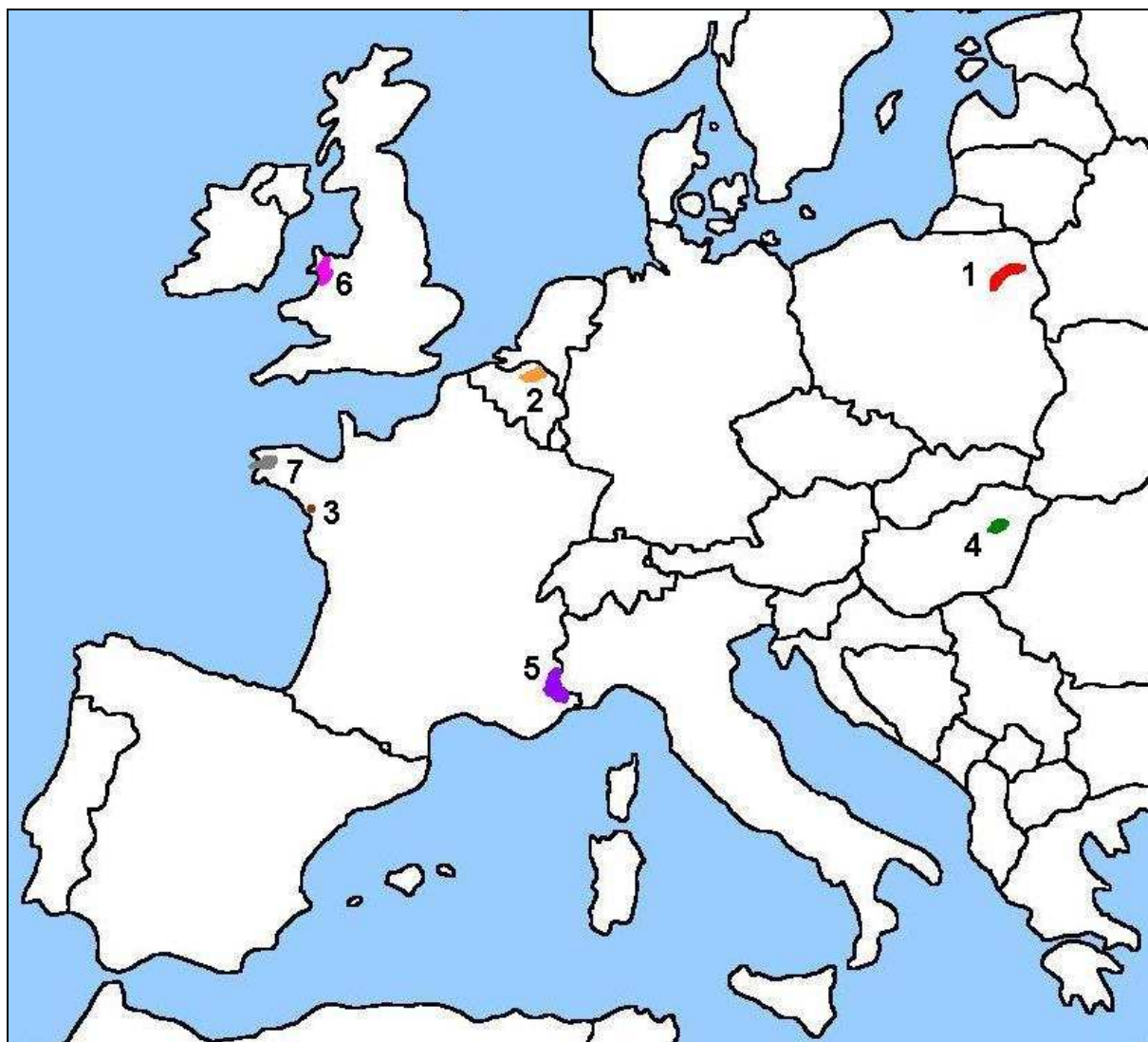


Figure 1 - Map of visited parks in Europe

- 1 – Biebrza National Park, Poland
- 2 – Hoge Kempen National Park, Belgium
- 3 – Brière Regional Natural Park, France
- 4 – Hortobágy National Park, Hungary
- 5 – Mercantour National Park, France
- 6 – Snowdonia National Park, Wales - United Kingdom
- 7 – Armorique Regional Natural Park, France



## **1 - Introduction**

One of the greatest challenges facing protected areas today is to find out the proper way of managing the biological richness, to combine natural heritage protection with local development and in the same time halting biodiversity losses.

Since many years Member States of EU are trying to sustain and maintain the biological richness. A great tool to achieve it is an ecological network called Natura 2000 which is the biggest protected areas network around the world. The idea of the EU wide network is to protect natural heritage on the European level through an active involvement of all Member States. Natura 2000 is a core stone of EU's approach to protecting biodiversity. This is a reason why it is in my strong interest. The most important element to keep the high level of biological diversity is an appropriate and integrated management for each area which all together compose a coherent international network. The CEEweb report says that "former EU Members" are ahead in developing the integrated management of the biodiversity than the New Members: "The responsibility of Natura 2000 management seems a big problem in CEE countries. When assessing the institutional framework CEE experts highlighted that unclear distribution of responsibilities seems just as a serious problem as lacking capacities. This is also true in regard to management"<sup>1</sup>.

Until now, Poland has almost completed the designation process of Natura 2000 network. The network covers almost 20% of terrestrial territory and more than 900 sites were proposed by European Habitat and Bird Directive. The focus in Natura 2000 implementation has now shifted on ensuring appropriate management of the sites. Undoubtedly this will be a learning process, where government, biodiversity experts, land users as well as the local communities need to develop the best tools to identify objectives, elaborate management tasks, ensure community support and involvement, and provide sufficient financial resources. There is limited number of people with good experience and knowledge to write and establish in a favourable way these management plans.

The aim of these visits

I am young employee of the Biebrza National Park, responsible for authorization on local development regarding to nature conservation and Natura 2000 requirements. Previously I was working in one of the main non-governmental organization in Poland – Klub Przyrodników<sup>2</sup>, dealing with Natura 2000 tasks. I have comparison of two style of nature conservation work. Now I got chance to see it from other points of view.

Through the visits to France, Belgium, United Kingdom and Hungary, I got practical knowledge and experience which help me to face up with coming challenge at work in the national park. I am sure that I will be able to use the study visits experiences in my work. I wish these experiences will be helpful for me to avoid and prevent some future mistakes.

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<sup>1</sup> <http://www.ceeweb.org/workinggroups/natura2000/resources/index.html>

<sup>2</sup> <http://kp.org.pl/>

The goal of my project with EUROPARC was to look into European examples of processes for integrated management of biodiversity and to adapt the ideas and knowledge to the local conditions in the Biebrza Valley. It will be grateful and useful to support my choice in a solution for integrated management of natural resources, both for nature and for population, by innovative methods of management.

I was looking also to get "know-how" on methods of cooperation and sustainable management of important biodiversity areas with interest of the local population and stakeholders involved in the process. Moreover it was interesting to know how to get them together and achieve a goal which satisfies both local communities and environmentalists.

I hope these study visits to be useful sources of knowledge not only for me but also for others.



## **2 – Mercantour National Park (France): Natura 2000 management, measures on effectiveness of the European Agriculture Program, tourism and rangers service**

### **Background**

There are 10 national parks in France. The Mercantour National Park (MNP) is one of the oldest. The Park was established in 1979. The MNP is located in south of France in the Department of Alpes-Maritime. The main goal is to protect the values of the mountain nature within the cultural and historical heritage (the stone villages from the middle age stacked to the rocks). The area of the MNP is 209 000 ha, where the core zone covered 68 000 ha. Most of the land is owned by private people. The core zone is a “true” area where the park authority has influence on the directions of local development and manages nature conservation. The peripheral zone is protected less strictly, similar to the polish buffer zone of the national park. The interesting thing is that the forest management is made and plan by State Forest Company. The Park authority just gives an approval on it.

Area of the Park covers 28 communes with 20 000 inhabitants who live mainly from the agriculture. There is also a high unemployment rate. There is high number of hectares abandoned (without agriculture practice). The mountain conditions are very hard to live and not a lot of people decide to stay. Most of the youth move down to the south to the very touristic sea cost where they can find work easily – less hard and better paid.

### **Structure**

The personnel are about 90 persons, but due to the financial crisis the number of the employee will be reduced in 2011. Around 50 persons are working in the headquarters of the national park, 40 people on the fields (within rangers). The headquarter office is located in a big city – Nice, a bit far from area of the Mercantour National Park. Park area is divided on 7 sectors including local offices with: managers, technicians, rangers (“gardes montagnes”) and tourism officers.

The Mercantour is a partner of the biggest nature inventory and monitoring in Europe. This international project (IT-FR) has started in 2007 and will go on until 2013. Total budget of the project covers 11,000,000 €, where 7,500,000 € is coming from the State. They signed agreements with more than 200 research centres around the world. Each year 100 scientists are coming here to do the field investigation. The cost of this work is counted to approximately 1,500,000 € per year.

### **Spatial planning**

Every 15 years the Department (in this case Department of Alpes-Maritime) has to do the spatial plan. This plan is quite general, to set the directions and destinations. The spatial plan for commune is made every 3 years and it consists of detailed records. The authority of national park is taking part in the spatial planning on the area/communes within the national park.

They have influence on the spatial planning and local development, but they are not a decision-making authority, they do not deliver for instance building permits. The investment inside the core zone has to be adjusted with the park, but for the enterprise located in the buffer zone authority gives its opinion. Evaluations of the impact of a proposed investment are made by taking into account impacts on wildlife within the core zone. The environmental impact assessments of investments which are made in the peripheral zone are evaluated according to their influence on the wildlife inside the park. The Mercantour NP is a mountain park a bit forgotten by the enterprises. There is no huge building pressure. Generally you can rent houses only in the village. In mountains only shepherd chalets are possible to be built. Last years the ski resorts development started to be a danger.



**Photo 1 - Mountain village in Mercantour NP (June 2010, U. Biereżnoj)**

The financial situations of national parks in France are very comfortable for the moment. Unfortunately directors have already received information about budget reduction for the next year due to the decrease of the national financial plan (world financial crisis)<sup>3</sup>. They receive enough governmental money to finance roads, parking, bridges building and other investments in the communes. Each

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<sup>3</sup> The Department de Alpes Maritime is very rich department, each year thousands of tourists are coming on the French Riviera, one of the most famous and expensive destination for holidays. Lot of rich people are living also there. Thank to that the department has high tax income.

investment is financed at 50% by Park and 50% is covered by commune. Investments which are localized on few communes can receive financing also from the Department. Generally the park authority tries to help commune to regenerate economically but in a sustainable way. (Mainly communes are not rich and most of the income comes from farmers and ski resorts. Due to hard farming conditions this branch of economy is decreasing. The Park would like to develop alternative to mountain ski tourism destination which is more nature friendly.) The amount of received money depends on the surface of commune inside the park. The highest is 25,000 €/year. This motivates communes to cooperate with the national park authority (e.g. approval of the charter or of the DOCOB). The financial co-dependence has positive and negative sides. Sometime it makes communes passive in taking action on their own.

## **Management**

The core of nature management works is a management plan prepared for the five coming years ("charte"). Since the EU legislation started to be an obligation, the management plan is settled with the opinions of communes. Before, there was no negotiation carried out. The "state of mind" turned – the park's authority and the communes' authority saw that consultations and cooperation bring better results than the strict demands and penalties. At the moment around 300 people are coming for each meeting what can be seen as a positive step forward and that the consultations are needed and have good feedback among the population. The communes (majors) have to give their opinions about draft and agree the final version. If any commune does not want to approve the new management plan it means that it dismisses from the money which it can get from the park authority and dismisses for future cooperation. Beside that each commune is bound by the basic legislation without matter if they approved the Plan or not. In French circumstances the money which the national park authority gives to commune constitutes significant part of their total budget. Moreover the communes who signed the charter can count on park as a partner in many projects, they can use the logo of the park and logo of ecotourism products and they can get technical and scientific advices.

In 2007 and in 2009 the social measurements were done among population to get known their feelings regarding the national park. The questionnaire was made by phone call. The survey showed that the number of people who are satisfied of the park establishment is stable – around 87%.

## **Natura 2000**

Natura 2000 sites cover approximately the same surface as the Mercantour National Park. The director of the park is the manager of Natura 2000 sites located inside the national park or overlap with the boundaries of the Park. There is no well seen influence of Natura 2000 network on life of local people because the rules inside national park are stricter than the EU legislation. The national park authority carried out the public questionnaire and most of the inhabitants gave a positive feedback on the subject. There was part of the population who is impassive about new circumstances.

The functional basic (obligatory) of each Natura 2000 site is a document of objectives (named DOCOB – “Le Document d’Objectifs”) which is prepared for the 5 next years. Every 6 years there is a revision of the document in the same way as it was established before. The review is made by the Scientific Board of the national park. The DOCOB is a document of diagnosis and a guidance document for the management of Natura 2000 sites. The documents consist of nature objectives and adequate management measures which should be implemented during the 5 coming years.

The French ecologist are used to say that a DOCOB is a document of good intentions (what we would like to do) which are modified by time.

The writing process of DOCOB is strongly socialized. There is a local stakeholders group formed of different smaller working groups (e.g. farmers, foresters, hunters, etc.), managers and also a “Comité de Pilotage” (COPIL) – a steering committee. The DOCOB is nonetheless the result of a consultation process and thereby raising an administrative law “negotiated” rather than a classical unilateral procedure.

The final version<sup>4</sup> of the document is verified by CSRPN (Conseil Scientifique Régional de Protection de la Nature) in the frame of national guidelines and is approved by the Prefect.

The total budget of park for tasks regarding Natura 2000 (management works) comes up to 500,000 €/year. It is used to recompense Natura 2000 cap by individual contracts. The specialists from the park authority prepare contracts according to the guidelines from DOCOB (individually for each owner). These guidelines are made on basics from the “Charte” where a socio-economical diagnostic of the life conditions are analyzed and based on a national catalogue of the actions which can be paid by the contract (“Liste des actions contractuelles de gestion des sites Natura 2000”). From one side it is not an obligation, from the other side the owners have to work in the frame of the legislation. Sometimes in a DOCOB there are actions planed which are not included into the national list. In this case the park authority has to find funds by itself but there are no restrictions if they do not do it but there is risk that monitoring measures can show bad conservation status of habitat or species in case of not proper management.

There is no additional financial compensation for Natura 2000, only contracts mentioned below. There are 3 types of contracts:

Farmers, they can apply for the Mesures Agri-Environnementales (MAE). The money comes through French Ministry of Agriculture from the EU budget (CAP payments). The contract is negotiable, signed for five years. Park Authority spend approximately 20,000 €/year,

Land owners other than farmers (mainly state bodies: communes, foresters and hunters), they use subsidies named “Natura 2000 contacts”. Their available money in this scheme is approximately 20,000 € for five years per contract,

All owners – small contracts to follow the guidelines from the Charter, mainly “do nothing”. The subsidies are not high – just to cover the tax costs.

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<sup>4</sup> [http://www.espaces-naturels.fr/natura\\_2000/outils\\_et\\_methodes/guides\\_d\\_elaboration\\_des\\_docob/guide\\_pour\\_une\\_redaction\\_synthetique\\_des\\_docob\\_natura\\_2000](http://www.espaces-naturels.fr/natura_2000/outils_et_methodes/guides_d_elaboration_des_docob/guide_pour_une_redaction_synthetique_des_docob_natura_2000)



The park authority remunerates only for damage made by wolves, no compensation from other animals. There is no bear in the Park.

## **Agro-environmental Measures**

The size of the farms varies from 100 to 1,000 ha in the park, there are smaller but very few. The main agriculture purpose is sheep and goats breeding. The herds are numerous because the AEM paid subsidies according to the number of animals. These cause that farmers increase the number of animals, often without taking care of the conditions of their stay, just to get more money. European agriculture policy strongly relies on a quantity not quality what causes that environmental contracts are less and less interesting for farmers.

In winter time approximately 150 farmers use land inside the park, in summer around 300 enterprises. 40% of the grassland inside the park is used by local farmers; rest is mainly use by Italians. The amount of subsidies can vary from 10,000 € to 20,000 €. There is a special calculation model which computes the limit of subsidies which an individual farmer can receive. The farmer cannot get more money than this limit even if the sum of the simple payments is higher.



**Photo 2 - Nature management by sheep grazing, Mercantour NP (June 2010, U. Bierežnoj)**

The proposition of AEM package is presented by a specialist from Park to individual farmers. Few individual meetings with farmers are organized to explain and determine the conditions of the cooperation. The specialist shows the proposition of works and the farmer gives his opinion on it. Often the specialist can learn from the conversation, like some works which he plans are not possible to realize in some condition, as there. Also farmer benefits from the meeting.

When the conditions are agreed they sign an agreement for five years duration. The contract is verified by the Agro-environmental Agency and payment is calculated. Later on, a performance of contract (a quality and quantity of actions) is checked by rangers and if there is something going wrong, rangers inform the Agency about problems.

Each contract is evaluated after the end of the agreement and if a feedback is positive, a new contract is signed. The rules can be changed in new agreement if new circumstances appear (e.g. raising the mowing/grazing area).

## **Monitoring of Natura 2000**

Until now, most evaluations of conservation status of species or habitat have been done by the best expert knowledge. Nowadays there are guidelines established to equilibrate monitoring measures. Park authority is involved in monitoring of species protected by national law. It looks that the Natura 2000 monitoring is based on it.

## **Bird monitoring – black grouse**

The population of the black grouse is stable in the national park; it is concentrated in one region (Tinée). According to information from rangers the main threat for birds are wild boars and decline of good breeding habitats due to natural processes. The black grouse can be hunted outside the park (also in the buffer zone). The number of males directed to hunt is evaluated each year after the early spring monitoring of its population. A black grouse counting is made by the hunters with help of rangers from park. The number of black grouse population is smaller than the number of the ibex which is excluded from hunting. They do not regulate the number of foxes population by spreading the vaccination against rabies.

The hunters take a part in protection of the black grouse population by the creation of the tooting-ground for the males. The sad point is that some of them are located close to hunting towers.

On the park area acts a local NGO "Organisation de galliformes de montagne" which is engaged in the research and monitoring of the black grouse population there.

## **Forest and hunting**

The state-owned forests are managed by the Forestry State (Office National de la Forêt – ONF) in the national park. The forest management run by ONF (according to the tree cutting) has to be authorized by the director of the national park but on the other side the ONF has to fulfil the status works as well. The ONF has the last word.

Part of stated-owned forests belongs to communes. They commission to manage the woodland to the Forest State Company. Often the cost of management are equal with the income from wood, the commune comes with almost no profit at the end (after payment to ONF).



Regulated hunting is allowed inside the core zone with the limitation. Main hunting target is game species mainly red deer and wild boar but also birds like partridge and rock ptarmigan. Since last year there are no hunting limits for *Lagopus muta* in the area. The park rangers have a duty to control hunters during hunting. Each hunted piece has to have a special ring (the ranger task). The rings are bought with the hunting licence.

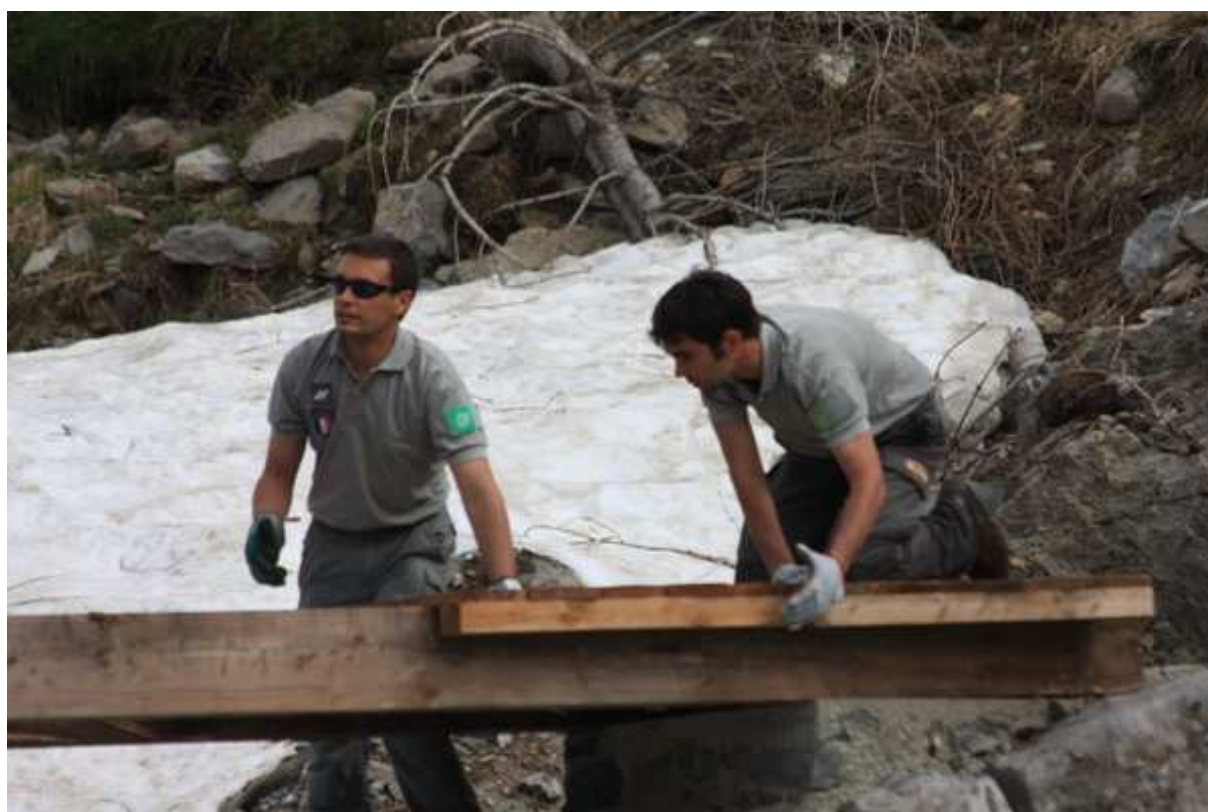
There is an idea to implement a new species here: Corsican Ibex.

Fishing is allowed in the park after purchasing a fishing licence. The special fishing regulations are in force, e.g. using just one fishing stick per person.

## **Rangers**

Recruitments for ranger posts are very difficult and they happen on the national level (for all French national parks). Candidates have to pass exams from the biology, mathematic, legislation and psychology. In 2009 there were 300 candidates and just 5 were employed. The employee of one national park could move to other national park to work after several years (it is an option).

In the 7 sectors of Mercantour National Park work 25 rangers. They are responsible for animals and plants monitoring, Natura 2000 monitoring and management, tourism infrastructure services and cooperation with local farmers (within controlling Natura 2000 contracts). They work also as tourism guides, as civil servants and as policemen (according to nature legislation). They have to get wide knowledge (not only biological) and they are used to be sportive and in good health.



**Photo 3 - Rangers building a bridge at 2000m, Mercantour NP (June 2010, U. Biereżnoj)**

## **Main threats**

Threats are mainly ski resorts and the decrease of the agriculture practice.

## **Tourism information**

There is 600 km of walking trails/paths for tourists. Entrance to park is free. Dogs are not allowed inside the park (excepted local and shepherd dogs). The area of the park is not a common tourism destination. South of France is famous for the sea cost which is already almost overbuilt. The park authority is developing the strategy how to recruit more tourists and they have already started to promote the park also on the international stage.

There are many advertisements/information panels dedicated to tourists to take care of nature, to not destroy trees, to not pick up flowers, to not bring dogs and to keep rubbish in the local media.

### **3 - Armorique Regional Natural Park (France): Natura 2000 management, syndicate, conflict issue resolutions, tourism and local development**

#### **Background**

There are 46 natural regional parks in France. The Regional Natural Park (RNP) of Armorique has been established in 1969 and is located in the Western Bretagne, France. The landscape of Park varies: sea coast, highland (Monts d'Arrée), grassland and moorland. In 2010 the park was enlarged and covers actually an area of 125 000 ha which means that it is the first marine regional nature park in western France. Now, the area of the Park includes also the Molène archipelago which is an UNESCO biosphere reserve since 1988.

Regarding to actualization of the management plan of Park, local representatives of five communes applied to park authority to include theirs communes in boundary of Armorique RNP from 2010. Main reasons may be better attractiveness and recognition in region and among tourists. Now, they are then able to use the Armorique RNP label to promote themselves and their products. The communes count also for support and engagement of Park in nature conservation and regarding their sustainable development. They believe that all together they will be stronger and have better influence at the regional scale. The population is approximately 61,000 inhabitants concentrated in 44 communes.

#### **Syndicate**

The park is managed by an association which includes representatives of: communes (one person from each commune of the Park), Park authority, city of Brest and four neighbouring towns, the Finistère department and the Bretagne region. The association is assisted by scientific advisory committee and work with collaboration of a range of partners.



**Photo 4 - Headquarters of the Regional Natural Park of Armorique, Le Faou (U. Biereżnoj, 2010)**

## **Nature management**

The foundation of management in the regional nature park consists on a "Charte" (charter). A new "charte" (type of management conservation objectives) has been approved by the Prime Ministry in the beginning of 2010. The new charter is now valid until 2021 (for 12 years period). A new mission of the Park written in the charter is headed to sustainable urbanisation. All RNP in France have four axes of objective written in the management plan: environment, patrimony (preserving and enhancing the regional natural and cultural heritage), urbanism and tourism (developing activities to welcome visitor and to improve environmental awareness, providing assistance towards well-balanced development within the local area). All these axes are written in a management plan. The park authority with communes, regional departments, and others obligate themselves to work together to achieve common objectives. It is a jointed process for sustainable local development.

As well as its conservation work, the Park is involved in organizing events and pursuing its aim to the both a school of nature and a school of live. Activities range from research to learning about nature and include: scientific studies, protecting the ecology of the sites and landscape; fallowland management, preserving heathland no longer used by farmers, maintaining local rare breeds (e.g. Breton post horses). The park supports strongly Breton language teaching (regional language) and local culture (based on Celtic history). Special efforts are also made to hand on the know-how of traditional crafts.

## **Natura 2000**

In whole Bretagne there are 85 Natura 2000 sites. There are thirty five terrestrial Natura 2000 sites in the Finistère Department: 21 SACs and 9 SPAs. Additionally seven of them were designated as a marine site. The park authority is responsible body for ten of them; others are managed by the appropriate local direction (special Steering Committees established by communes).

The Natura 2000 governance process is based on contractual agreement; conservation measures are taken under the "Natura 2000 contract" which represents a form of free agreement between government and landowners and contains precise requirements concerning the management of the Natura 2000 site. Before the contract is signed, the two parties agree on the "DOCOB" (document d'objectifs), which includes economic, social and cultural provisions for active management and preventive measures. The DOCOB is drawn up by the Prefect<sup>5</sup>, after consultation with municipalities, regional representatives, landowners and farmers. A Natura 2000 steering committee ("Comité de Pilotage") is set up on behalf of the Prefect to review the requirements of the DOCOB and assess its implementation (Report 2008).

The image of the network among the society is positive or negative. Group of people with negative Natura 2000 feedback consists mainly of landowners. It is mainly cause by problems with beavers and their dams and new Natura 2000

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<sup>5</sup> Local representative of Government

contracts (AEM). The habitats which are subsidized by the AEM are low productive and from many years have been abandoned from the agriculture practices. These are mostly wet *Molinia* and *Juncus* (rushes) meadows, and wet heaths and dry moorland. These ecosystems do not have high economic values and without the AEM payments there are no financial benefits for farmers to maintain them (by grazing and mowing practices).



**Photo 5 - Cost line and moorland, Armorique RNP (August 2010, U. Biereżnoj)**

## **Agro-environmental Measures**

In France the Agro-environmental Measures exist since 1990. Until now, the regulation to receive the payments has been changed already few times. Farmers are confused by the rules shifting and the number of documents to fill and the complexity of the administrative process from applications to payments. They say that contracts are not enough profitable compare to time and effort spending on documents and controls. Controls in Finistère Department are very strict and very administrative; there cannot be any small mistake. The controllers from the Agency check even the exact surface with precision to one square meter. They easily penalize farmers. Due to this fact, less and less landowners are interested in the AEM. Also due to lack of personnel in the Armorique RNP, the park is not able to support farmers with the administrative requirement from the Agriculture Agency.

Report (2008) ordered by the Court of Accounts of Finance guilty the information and communication weaknesses in the Natura network preparation process. The public trust in environmental authorities was eroded at the beginning.

## **Local development and tourism**

The park area's economy relies mainly on farming and tourism. Agricultural production includes: pork, poultry, milk and vegetables production. A strong accent is put on organic farming and rural accommodation schemes (farm-inns, B&B, etc.)

Tourism is mainly concentrated along the coast and slowly developing inland. There is more than 400 km of trails. The tourism is based on the well prepared tourism infrastructure with a network of 20 facilities, like museums, animals' shelters – Domaine de Menez-Meur.

There are approximately 200,000 visitors each year in the Park.



## **4 - Brière Regional Natural Park (France): Natura 2000 management, birds' monitoring methods, structure of the syndicate and conflicts issue resolution - Agriculture**

### **Background**

The Brière Regional Natural Park is one of the oldest as it was created by Decree on 16th October 1970. It is located a few kilometres from La Baule Riviera in NW France (South Bretagne). The surface of park is quite small, around 49 000 ha. Wet meadows, reed marshes and maze of canals are making up this secret countryside. The Brière RNP is famous for his high species richness of breeding and migratory birds. This is the most important bird area in NW France. Majority of the land is common land. The inhabitants named themselves "Briérons" and they are very bound to the local history, culture and traditions. Briérons put a lot of care to keep alive the knowledge and experiences of ancestors. These facts make Brière an unique place. To become Briéron you need to own a house in the communes of Brière, then also common land belongs to you. The rules in Brière RNP often differ for Bretons and non-Bretons.

### **Structure**

The regional nature parks in France are managed by a governmental administration body call syndicate. The original aim of the structure is the promotion of a common interest of inhabitants. In Brière, there are 21 syndics' representatives from all communes from the area and from the Park personnel (also Natura 2000 managers). The group of syndics vote for a president. The local development guidelines are voted at the majority. The total number of employee of the Syndicate is 29, with six of them working on nature conservation.

There is no separate department for Natura 2000. This topic is managed just by one person as Natura manager located in "Protection et gestion des milieux naturels".

### **Spatial planning**

The park authority has a limited influence. The communes are decision making authorities.

### **Natura 2000**

As mentioned before the fundament of Natura 2000 management is the DOCOB according to EU legislation prepared every 6 years. The structure of DOCOB is similar to the polish Plan of Conservation Objectives. The process of approving DOCOB has been made by a public participatory method. The Park authority is responsible just for sites overlap with the park area. In case of Brière RNP, this is

one area: SPA Grande Brière – Marais de Donges et du Brivet. Other sites are managed by communes. The communes establish a board ("Comité de Pilotage") and employ Natura 2000 manager (the number of position depends on the amount of sites to be managed). For each Natura 2000 site an information newspaper is published quarterly: "L'actualité du site". Every year the Natura 2000 Department of Park is obligated to write an annual report of activity regarding the DOCOB objectives.

Around RNP of Brière there are many high power lines. To decrease the number of birds' collisions with the lines they have rigged white balls on the lines and artificial predator birds on the towers. But it is amazing that a white stork can breed on these huge towers!

The habitat and bird management is done mainly by cattle grazing (beef breed cattle) and mowing. Some mowing machines were invented for this purpose two years ago and they can mow in very wet conditions.



**Photo 6 - Special mowing machine adjusted to hard and wet conditions, Brière RNP  
(April 2010, U. Biereżnoj)**

Lot of surface is overgrown by the reed. To maintain the habitats in favourable status mowing is needed. That produces lot of biomass. The mowing regime is monitor by scientists from Rennes Research Institute. The park authority (syndicate) with communes' authorities worked up the strategy, a win-win situation, by creating the market for cut reed. The reed is a historical material for house roof covering. The cottage with its mantle of reeds is a fundamental part of the Brière landscape where it has been an essential feature since the middle of the 17th century. The men of Brière have, by necessity, become thatchers. Thank to the coalition and cooperation, this old profession came back. Nowadays thatchers perpetuate the tradition and give the original architecture of the

Brière; its signature of centuries-old know-how. With its 3,000 thatched roofs, the Brière is the region of France where the density of thatched cottages is the highest. To see the results of this project, this is enough to visit Kerhinet village. The village was acquired and renovated by Syndicate to build up a great tourist attraction where visitors can find the explanation of the history, the customs of Bretons live, samples of the local gastronomy, buy regional products and listen to the former bell-ringers playing songs. All of these compose the soul of the region with full of magic and harmony.



**Photo 7 - The Kerhinet village with typical buildings, Brière RNP (April 2010, U. Biereżnoj)**

The history above shows a positive example of cooperation and it brings and encourages local development and nature. The beginning was very hard. To find the common language and gain the confidence, it took years. Even these days some incidents can happen, when some owners want to show their discontent.

The decreasing of grazing was solved also successfully. This is another positive win-win solution which deals with beef market. The Brière meadows have to be maintained by grazing. Due to the changes in a global market of beef production, as well as milk production, there was no more interest to keep animals and manage the land. The solution came from the park authority – to shorten the chain of intermediaries. The farmers, with help of the park, create a collective. They sell cows straight to a local butcher who sells meat on the local market as local product. That food is available only in surrounding areas. The Bretagne public understands well the role of local producers and they support them strongly. They choose consciously the local products. Thank to the demeanour of public, a win-win solution exists and brings benefits to Brière and Briérons<sup>6</sup>.

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<sup>6</sup> <http://uk.parc-naturel-briere.fr/index.php?id=7125>



## **Invasive species**

The most problematic invasive is the American crayfish. This is a small animal making lot of problems in whole wetland area. In recent years it has gained strength. From 2009 the studies have started to try to eliminate the species. The number of crayfish in Brière wetlands can be illustrated by this example: in a pond with a surface of 3,500 m<sup>2</sup> there were 5,000 individuals.



**Photo 8 - The pond where 5000 individuals of crayfishes were caught, Briere RNP  
(April 2010, U. Biereżnoj)**

At the moment they test the efficiency of different types of trap to catch crayfishes. The invasion has started 25 years ago when the production of crayfish stopped. At this time the owner just brought back crayfish to nature. The crayfish eats macrophytes, fries and tadpoles. There are so many now that to see adult frogs is almost impossible. Furthermore, this cause a trophy problems – strong eutrophication - and during hot summer days, oxygen deficits in shelf water.

The French legislations say that the invasive species has to be killed after catch, and cannot be given back to nature. The nature conservation act specifies killing methods of invasive animals.

## **Monitoring methods**

The Briéron mash tern population of genus *Chlidonias* is the largest one in North of France. Birds monitoring is made by park staff with help of volunteers and researchers. The methodology is matched especially for each bird species with help of the Research Institute of Rennes. They carry also different scientific and

practice analyzes to protect better birds, like the impact of grazing on birds in Brière.

The monitoring of otter (*Lutra lutra*) is done each year also. The otter is an important mammal in Brière, its protection is one of the nature objectives of Natura 2000 site. To decrease the high mortality of the animal the Park built a special overpass under the road bridges (photo 9).



**Photo 9 - Tunnel under the road bridge built for otters, Briere RNP (M. Marquet)**

To protect the bats colonies in Grenebo, the park authority equipped gates with large metal gates (photo 10). The biggest gate costs 20,000 €. The carrier of Grenebo is a winter colony for six species of bats. There is a main colony of horseshoe bats (*Rhinolophus* sp.) in the abandoned rock tunnel.



**Photo 10 - Establishment of the protecting gate for bats colonies, Brière RNP  
(April 2010, U. Biereżnoj)**

## Agro-environmental Measure

The area where farmer can apply for AEM payment is determined by the park authority. There are 14 type of measure available for farmers in the area. The payment covers also the Chlidonias conservation task (in Poland marsh terns are excluded from the AEM). The amount of payments per hectare is comparable with the Polish ones. In 2009, 1,116 ha were under the AEM payments in Brière Regional Nature Park.

## Hunting and fishing

Fishing is allowed. The photo below presents the regulations. Hunting is also possible during the season and the main prays are waterfowl.

**COMMISSION SYNDICALE DE GRANDE BRIERE MOTTE**  
**COTISATIONS - TARIFS POUR 2010**  
 Chasse - Pêche - Coupe de roseau - Professionnels du tourisme - Eclairage et chauffage

	Brièreon	Non Brièreon
<b>CHASSE</b> Pour les dates d'ouverture et de fermeture, consulter les Affiches affichées au Musée.		
Permis annuel	100 €	120 €
Permis 7 jours consécutifs	25 €	30 €
Permis journalier		
Inscription : 100 € (non payables pour les personnes qui possèdent un permis annuel ou un permis 7 jours consécutifs)		
<b>PÊCHE</b> Ouverture le Samedi 10 Juin 2010 - Fermeture le 31 Janvier 2011		
Permis pour 1 ligne avec moulinet	10 €	20 €
Permis pour 2 lignes avec moulinet	20 €	40 €
Permis pour 1 ligne	10 €	20 €
Permis pour 1 carreau	25 €	50 €
Permis pour 2 carreaux	40 €	80 €
Permis pour 3 carreaux	55 €	110 €
Permis pour 4 carreaux	70 €	140 €
Permis pour 5 carreaux	85 €	170 €
Permis pour 6 carreaux	100 €	200 €
Permis pour 7 carreaux	115 €	230 €
Permis pour 8 carreaux	130 €	260 €
Permis pour 9 carreaux	145 €	290 €
Permis pour 10 carreaux	160 €	320 €
Permis pour 11 carreaux	175 €	350 €
Permis pour 12 carreaux	190 €	380 €
Permis pour 13 carreaux	205 €	410 €
Permis pour 14 carreaux	220 €	440 €
Permis pour 15 carreaux	235 €	470 €
Permis pour 16 carreaux	250 €	500 €
Permis pour 17 carreaux	265 €	530 €
Permis pour 18 carreaux	280 €	560 €
Permis pour 19 carreaux	295 €	590 €
Permis pour 20 carreaux	310 €	620 €
Permis pour 21 carreaux	325 €	650 €
Permis pour 22 carreaux	340 €	680 €
Permis pour 23 carreaux	355 €	710 €
Permis pour 24 carreaux	370 €	740 €
Permis pour 25 carreaux	385 €	770 €
Permis pour 26 carreaux	400 €	800 €
Permis pour 27 carreaux	415 €	830 €
Permis pour 28 carreaux	430 €	860 €
Permis pour 29 carreaux	445 €	890 €
Permis pour 30 carreaux	460 €	920 €
Permis pour 31 carreaux	475 €	950 €
Permis pour 32 carreaux	490 €	980 €
Permis pour 33 carreaux	505 €	1010 €
Permis pour 34 carreaux	520 €	1040 €
Permis pour 35 carreaux	535 €	1070 €
Permis pour 36 carreaux	550 €	1100 €
Permis pour 37 carreaux	565 €	1130 €
Permis pour 38 carreaux	580 €	1160 €
Permis pour 39 carreaux	595 €	1190 €
Permis pour 40 carreaux	610 €	1220 €
Permis pour 41 carreaux	625 €	1250 €
Permis pour 42 carreaux	640 €	1280 €
Permis pour 43 carreaux	655 €	1310 €
Permis pour 44 carreaux	670 €	1340 €
Permis pour 45 carreaux	685 €	1370 €
Permis pour 46 carreaux	700 €	1400 €
Permis pour 47 carreaux	715 €	1430 €
Permis pour 48 carreaux	730 €	1460 €
Permis pour 49 carreaux	745 €	1490 €
Permis pour 50 carreaux	760 €	1520 €
Permis pour 51 carreaux	775 €	1550 €
Permis pour 52 carreaux	790 €	1580 €
Permis pour 53 carreaux	805 €	1610 €
Permis pour 54 carreaux	820 €	1640 €
Permis pour 55 carreaux	835 €	1670 €
Permis pour 56 carreaux	850 €	1700 €
Permis pour 57 carreaux	865 €	1730 €
Permis pour 58 carreaux	880 €	1760 €
Permis pour 59 carreaux	895 €	1790 €
Permis pour 60 carreaux	910 €	1820 €
Permis pour 61 carreaux	925 €	1850 €
Permis pour 62 carreaux	940 €	1880 €
Permis pour 63 carreaux	955 €	1910 €
Permis pour 64 carreaux	970 €	1940 €
Permis pour 65 carreaux	985 €	1970 €
Permis pour 66 carreaux	1000 €	2000 €
Permis pour 67 carreaux	1015 €	2030 €
Permis pour 68 carreaux	1030 €	2060 €
Permis pour 69 carreaux	1045 €	2090 €
Permis pour 70 carreaux	1060 €	2120 €
Permis pour 71 carreaux	1075 €	2150 €
Permis pour 72 carreaux	1090 €	2180 €
Permis pour 73 carreaux	1105 €	2210 €
Permis pour 74 carreaux	1120 €	2240 €
Permis pour 75 carreaux	1135 €	2270 €
Permis pour 76 carreaux	1150 €	2300 €
Permis pour 77 carreaux	1165 €	2330 €
Permis pour 78 carreaux	1180 €	2360 €
Permis pour 79 carreaux	1195 €	2390 €
Permis pour 80 carreaux	1210 €	2420 €
Permis pour 81 carreaux	1225 €	2450 €
Permis pour 82 carreaux	1240 €	2480 €
Permis pour 83 carreaux	1255 €	2510 €
Permis pour 84 carreaux	1270 €	2540 €
Permis pour 85 carreaux	1285 €	2570 €
Permis pour 86 carreaux	1300 €	2600 €
Permis pour 87 carreaux	1315 €	2630 €
Permis pour 88 carreaux	1330 €	2660 €
Permis pour 89 carreaux	1345 €	2690 €
Permis pour 90 carreaux	1360 €	2720 €
Permis pour 91 carreaux	1375 €	2750 €
Permis pour 92 carreaux	1390 €	2780 €
Permis pour 93 carreaux	1405 €	2810 €
Permis pour 94 carreaux	1420 €	2840 €
Permis pour 95 carreaux	1435 €	2870 €
Permis pour 96 carreaux	1450 €	2900 €
Permis pour 97 carreaux	1465 €	2930 €
Permis pour 98 carreaux	1480 €	2960 €
Permis pour 99 carreaux	1495 €	2990 €
Permis pour 100 carreaux	1510 €	3020 €

La Présidente, Bernard LEBLANC

Commission Syndicale de Grande Brière Motte  
 44100 Nantes - 44100 Nantes - 44100 Nantes  
 02 51 22 34 30 - 02 51 22 34 30 - 02 51 22 34 30

**LISTE DES MEMBRES DE LA COMMISSION**  
 Les membres de la Commission Syndicale de Grande Brière Motte sont élus pour une durée de 4 ans. Ils sont élus par les habitants de la commune de Grande Brière Motte. Les membres de la Commission Syndicale de Grande Brière Motte sont élus par les habitants de la commune de Grande Brière Motte. Les membres de la Commission Syndicale de Grande Brière Motte sont élus par les habitants de la commune de Grande Brière Motte.

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Photo 11 - Tariffs of goods for Brièron and Non Brièreon, Brière RNP  
 (April 2010, U. Biereżnoj)



## **Education**

The Park provides services for teachers. The course can be one or few days long. It isn't free from charge but teachers benefit for them. On the other hand the national regulation emphasis strongly the importance of ecological education at schools and require good ecological knowledge from teachers.

The children education is also conduct by park's personnel. Around 100 schools are visiting Park every year. The planning of the visit is made at the beginning of the school year with teachers, and the following March the program is ready. The realization is made on the field from April to July.

## **Tourism information**

Brière RNP receives more than 150,000 tourists per year. The shop with souvenirs in St. Joachim village open form 1st of April to end of September entertains 100,000 visitors.

## **Interesting**

Some of nature regional parks legislated a GMO ban of their territory.

## **5 - Regional office of the Flemish Agency for Nature & Forest (Agentschap voor Natuur en Bos – ANB<sup>7</sup>, Belgium): Manure management, Natura 2000 management, conflicts and issues resolution, agriculture and Natura 2000 management on Military Training Areas**

### **Structure**

The Agency for Nature and Forest is a division of the Flemish Environment Agency (OVAN). The central headquarters of the Agency for Nature and Forest (ANB) is located in Brussels where five people work on the subject. Their main tasks consist on the coordination of the work of four regional offices (one for each region) and on working on the national guidelines for nature conservation. They are responsible for cooperation with the Research Institute for Nature and Forest (INBO) which is the Flemish research and knowledge centre for nature and its sustainable management and use. INBO conducts research and supplies knowledge to all those who prepare or make policies or are interested in them. There are four regional offices where around 10 people work per office, as rangers and managers. The numbers of rangers depend on the type of the local landscape and vary from 1-3 people. The ecological education of these persons is very high and very wide; they are specialists of peat bogs, birds, dragonflies and plants at the same time.

### **Spatial planning**

Belgium is a small country with 30,500 km<sup>2</sup> of terrestrial territory. On the other hand is very developed and densely inhabited. These make possible to predetermine precisely the types of land use. Spatial planning is a crucial factor. Belgium is divided for different zones with specific destination and priorities. Each piece of land has its own destination determine by a national, regional and local spatial panning. There are areas set as an agriculture land and the farming is a priority. Nature protection purpose can be achieved as additional goal if they are not opposed with farmers' interest. Continuously, there is an area regularizing for nature protection where nature is a priority. The situation is complex generally: if the species for which that protected area was established move out to arable land, the Belgium nature conservation will prefer to do all the best to bring back the species to "home area". They cannot create a new protected area for it on the arable land.

### **Management**

The ecologist work is based on an active management. It is called development for nature. These works deeply tamper with nature. It is not just a habitat improvement but a complete re-creation of nature. This type of management is

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<sup>7</sup> <http://www.natuurenbos.be/>

very costive and need lot of energy use. Works carried out in the east part of Poland are like "cosmetic changes" in habitats compare with the Belgium conservation.



**Photo 12 - Development for nature – moorland and oligotrophic lake restoration, Belgium  
(March 2010, U. Biereżnoj)**

The management of moorland is done by mowing, grazing and control burning. There are special machines invented for that purpose. Animals used for grazing are sheep, cattle – Galloway, less often ponies.

## **Natura 2000**

The designation process of Natura 2000 network was very turbulent and took lot of time. The opposition still exists, consisting mainly of the large landowners and developers. Practical works under implementation Natura 2000 network have started in 2006 after the heavy case of the harbour in Antwerp. Before politicians tried to avoid the subject and The Antwerp matter showed to politics that they cannot marginalize any longer Natura 2000 topic. The strategy includes implementation, and management goals. There are 64 sites at the moment which cover 12,4% of Flemish terrestrial territory. 38 sites were designated as SACs and 26 as SPAs. Each of the area has to have a nature conservation objective NCO (counterpart of a management plan). Natura 2000 sites in Belgium are in total of: 229 SPAs and 278 SACs, including one marine SAC area (on the North Sea)<sup>8</sup>.

After the establishment of the Natura 2000 network in 1994 in Belgium, the Flemish part started to work on the Nature Conservation Objectives (NCO) on

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<sup>8</sup> [http://www.biodiv.be/implementation/protected\\_areas/natura-2000-belgium/](http://www.biodiv.be/implementation/protected_areas/natura-2000-belgium/)

national and local level. They started the work from a preparation of national ecological targets for Natura 2000 objectives based on knowledge from INBO. The ecological targets book is a detailed data base of each important species and habitat. The document consists of information about actual state of taxa and future perspective with information like: how many individuals/populations of that species they want to have, how many hectares of that habitats they want. This "target book" is fundamental for all nature planning in Flanders. The work was carried by ANB with involvement of INBO and some politics. Base on it, the national NCO has written a kind of management plan. Now they work on a regional NCO. The national NCO is not a detailed plan as it just shows the directions, targets and priorities in general, like 1-5 main goals which have to be realistic and possible to put into practice. A decision on national level has been taken and in a case that two sites SPA and SAC are overlapped, the NCO should be done just for one. In most of cases, the habitat sites are chosen to write the NCO. These came from fact that is timeless and workless process than preparation of SPA management plan due to conflicts with farmers. Most of farmers take a third mower/swath in June. On birds protected areas, the date of the first mowing should be postponed to June. This may create conflicts.



**Photo 13 - Explanation of the nature restoration project, Belgium**  
(March 2010, Luc van Assche)

All Conservation Objectives present two types of aims: quantitative and qualitative. The scientific proofs are needed to convince society. There is no chapter about financing source and timetable for realization the actions. The base of the proper process of the nature conservation objectives preparation is found out together with all stakeholders. To define precisely goals and priorities is a crucial step as well as stakeholders within an opposition. Other important factor is a well composed group of ecologists – they have to have good background about Natura 2000 and have base knowledge about communication and negotiation. Next goal is to find an understandable language for all participants. The rules should be said on the beginning of process and should be

clear. Flemish use TINA principle which means: there is no alternative. During the meetings, there cannot be any secrets, everybody is equal and can say everything without fright but only true is allowed to say. Sometimes also a training of stakeholders is needed to raise their awareness and knowledge about the conservation objects. The participation method is use in Belgium since the eighties-nineties in nature conservation.

The Appropriate Assessment for Natura 2000 can be prepared by everybody. Environmental Impact Assessment can be made only by people with the required degree. The EIA has to include also socio-economic impact assessment and to consider the business of the main stakeholders. The EIA has to be written in common language – understandable for all, excluding the scientific chapter. The report has to be given under consultation process through stakeholders. To show potential conflicts they use an SWOT analyze and a problems matrix.

### **Military Training Area and Natura 2000 management**

A base line of the cooperation between the Ministry of Defence and the Ministry of Environment was an agreement as follows: the military activity will not be stop due to Natura 2000 conservation objectives and the Army will not be involved in financing Natura 2000 tasks. The agreement was signed in 1999. In 2003 Flemish Agency for Nature and Forest apply successfully for LIFE Nature funding and the nature conservation has started. The name of the project is DANA. The area of project covers 12 MTAs in Flanders. The aim was to bring back to favourable conditions the habitats on the abandoned land (by Army). The project has finished in 2010, but not the management work. Bringing back open habitats generates extra money from wood cutting which enable continuation of management works.



**Photo 14 - Open space habitat creation on the post military area, Belgium (March 2010, U. Biereżnoj)**



## **Invasive**

Belgium uses glyphosate to fight against invasive plant species. In visited region the main problems appear with black locust (*Robinia pseudoacacia*), northern red oak (*Quercus rubra*) and black cherry (*Prunus serotina*). The main energy is put to eliminate northern red oak by tree cutting and in some cases additionally use of glyphosate. *Rhododendron* started to be a problem. Officially is not yet listed as vigorous but his strong competition feature has been already observed.

They have heaved problems with the invasive Canadian goose (*Branta canadensis*). Crisscrosses with native geese's species increase and due to their high number there is an eutrophication in oligotrophic water.

## **Conflicts resolution**

ANB has begun to create a database of investment. This application will be able to say approximately if the investment can negatively influence nature and if the environmental impact assessment (EIA) will be needed. Thank to the database an investor can modify his idea better in order to respect rules and to plan it better in a more sustainable way. The ANB specialist would like that the application will be use as screening machine for ventures and be able to prepare pre EIA reports.

The best and most frequently method uses to solve the conflicts between nature conservation and farming is land purchase. This method is use be governmental and nongovernmental institutions. In most of the cases a farmer who sold the land for nature purpose can still use the area (free of charge) but on new condition, like later mowing. The Flemish environmentalists get a great support from the national Agency of Property and ANB, they follow all administrative procedures. NGO can apply to governmental agencies for funds to buy and manage land. The feedback is positive.

## **Manure management**

The agriculture sector is a very powerful branch of Belgium economy. The amount of produced manure in Belgium is much higher than in Poland. The agriculture land covers 67,000 ha and there are 34,000 farms. In 2008, net manure-N production was 122,5 mio kg N. Almost total area of the country is designated as vulnerable zone according to the EU Nitrate Directive. At the end of 2006 the new legislation (Manure Decree) was approved, stricter, with high fines and more controls. On the other hand, Belgium still did not transpose enough well the EU directive. The European Commission agreed for a limited derogation. Every farmer can request for derogation, including farmers without livestock or manure surplus on the farm level. Derogation is applied on the parcel level, not of the farm level. The Flemish Agency introduced a Nutrient Emission Rights (NER) to keep the livestock manure production under control – limiting production of N and P. NER are tradable but under stringent conditions. They established a Manure Bank – a governmental body which is dealing with those subjects. This is interesting that a farmer in Belgium has to register transport of



manure, and the transport has to be done with a police escort, additionally followed by GPS. The manure can not be spread on the field during holidays or on Sundays.

Meadows or other habitats of high importance for nature inside the protected area or on the land determined for nature conservation purpose cannot be fertilize according to new legislation.

The situation in Belgium and Poland cannot be comparable. Almost whole area of Poland is not designated as vulnerable zone. This does not mean that there is no problem with manure management.

## **Hoge Kempen National Park**

There is just one national park in Belgium, young one but functioning very well. The Hoge Kempen National Park (HKNP) was designated in 2003 in the area of already existing regional landscape park in Limburg department. It is not a national park in meaning of the nature conservation act. Words "national park" are more used here as a label or a tag. The surface is around 5,000 ha, 90% is state owned land within 12 communes. The main scenery of the site is post mining landscape with lot of artificial lakes. The abounded land is mainly cover by moor habitats and grasslands due to the restoration works. The Park was created after the big financial crisis in Belgium. The area was famous for its natural resources like sand, coal, etc. The European policy has changed making lot of people unemployment here. The first idea of local government to make the economical situation better was the creation of a Central Park. The initiative has developed into the establishment of a national park. The HKNP is a very good example that connection of economy and ecology is possible and can be even successful (not only for nature). The main aim of national park authority is tourism and recreation. Due to proper tourism infrastructure creation, Park wants to invite more tourists. More visitors mean more profits for the region and the inhabitants. The nature management is the "secondary" task and it was subcontracted to the regional office of ANB. The director of the park has very good economic background (he has received a Goldman award) and this helped him a lot to manage the park with positive feedback and quite good income. The park is able to receive better money for its own improvement and regional development.



**Photo 15 - Common scenery of Hoge Kampen NP in Belgium, (March 2010, C. Bazille)**

The tourism infrastructure is located around boundaries of national park. They are organized as entry gates to the Park. All of them have the same design and just differ in subjects: microcosmos, macrocosmos, etc. Always there are tourist centres, cafes, shops with souvenirs and pathways to visit the area. The idea is to keep common tourists out of the national park but let them think that they were in "a heart" of the park. Tourist centres are owned by the communes.

Thank to presence of HKNP a wildlife crossing for animals by the motorway has been created there. This is the only construction like that in whole Flanders. The passage is 50 m wide. A pond was even created on the crossing. There are few cameras and other devices to monitor migrations. In spite of that every three years a combine monitoring is carried on. The total cost of this construction has been around 4,000,000 €.

## 6 - Snowdonia National Park (Wales, United Kingdom): Natura 2000 management, invasive species and local development

### Background

The Snowdonia National Park is one of the three national parks in Wales and is located in the west part of country. Its area covers different types of habitats and you can find easily there mountains and great sandy beaches. The SNP has been established in 1951 as the first national park in Wales. The creation process of the park has been done without the local people involvement. The surface is 2,132 km<sup>2</sup> with 69.5% as private land. Park Authority owned only 1.2%. There is no buffer zone around the core zone of the Park. The population size is estimated to 26,251 inhabitants. 76% of the area is use as agriculture land and 16 % as forests (owned by Forestry Commission). The rivers are not owned by Park. The responsible body for water resource (also air & soil pollution) is The Environmental Agency.

The Park Authority receives approximately 10,500 k£ per year. The prosperity of Authority consists of: an educational centre (Plas Tany Bwlch), headquarters, 20 public toilets, 57 car parks, 6 visitor centres, Llyn Tegid, Snowdonia Summit Building and 9 warden centres.

### Structure

The headquarters of the park Authority are located outside of the national park. There are five field offices inside the limits. Five persons (3 rangers and 2 technicians) work in Harlech regional office. The strategy, policy and development sections of Park are coordinated by The General Council, a group of 18 members. Fifteen members come from communities and three are specialists elected by the Wales Assembly Government (Park employees). All decisions are taken by voting.



**Figure 2 – Management structure of the Snowdonia National Park (Emyr Williams)**

What take an attention is the absence of the Department for monitoring and science in the Snowdonia NP. These works are made mainly by CCW or other external bodies.

## **Spatial planning**

The authority of national park is also responsible for the spatial planning on the area inside the boundaries. They decide what, where and how to build and they give the building permits. The decision is taken by Council by voting.

Many of the employees work in the department of the spatial planning including architects and "enforcement officers". Notable is the website of the Park, investors can get most of the needed information there like: type of building which is permitted to build in a specific area, which building materials are allowed to use, etc. Also, you can already find there prepared application forms and correct steps of procedures regarding specific subject.

The Management and Development Strategy exists with 24 main objectives for 2007-2022. The objectives drown main directions for nature, landscape, cultural heritage and economy. The detailed planning is written in The Action Management Plan (available on the NP website). Both documents are consulted with local inhabitants – for their vision of the region development. Around 300 people are coming for each meeting.

If the decision is prosecuted, then a member of the council who extended this decision has to explain why this is important for the regional development.

The spatial planning rules are very strict, especially if you speak about building rights. Only local people who speak Walsh language can build a new house. The house can be sell also only to local and for normal price, not "tourist" price. All Walsh Authorities try to avoid "leave" to foreigners and retired people. Before each decision specialists go to check the area (as well as the nature side) before speaking to investors.

Due to high number of bats species there are special restrictions for investors and mitigation rules. The buildings with bats are indicated in the Management and Development Plan as conservation areas. Even a window replacement has to be permitted by Park Authority. An example of mitigation: before destroying an old house with bats, the investor has to build special artificial bats nest-houses. These old buildings are important also as historical monuments (approx. 2,000 houses) and they are protected by the legislation. The owner of the house is obligated to keep the historical image of the building. Park organized few project to give financial support to farmers to keep the historical building in good condition (e.g. roof renovation).

One thing is out of the park control – the stone extraction. Fortunately mining is allowed only out of the core zone but these places were cut out artificially by human after recognition of rock resources.

## **An active management**

Bogs management is made mainly due to deforestation of the blanket bogs and water table reparation. These works are useful also for the black grouse population by creating new mating habitats. The population of black grouse is well preserve in Snowdonia, estimated to 200 singing males. The males are counted each year and the hens every five years (by hunting dogs). Another helpful activity for the birds is the regression or decreasing of the succession process.

Meadows management is done by mowing and grazing. The research made in Park showed that mechanical mowing can be danger for some meadows bird species due to destruction of the soil micro relief. There is a lot of over drainage meadows with high numbers of *Molinia caerulea*. A new idea is to use pigs to graze meadows to eliminate purple moor grass.



**Photo 16 - Management of the blanket bog – tree cutting, Snowdonia NP (July 2010, U. Biereżnoj)**



**Photo 17 - Fire management of the moorland, Snowdonia NP (July 2010, U. Biereżnoj)**

Other interesting nature conservation project deals with the Framework Water Directive and farmers. The Park Authority helps farmers to raise standard of the



excrement (manure) management and fields' fertilization. The aim is to reduce the nutrients source from agriculture practice which is one of the main reasons of the green-blue alga blooming in a lake (Ramsar site).



**Photo 18 - Small bridge to avoid banks' erosion by the cattle. Snowdonia NP (July 2010, U. Biereżnoj)**

A very interesting and successful management project for osprey was implemented by the RSPB. The NGO successfully involved local people in the conservation activity. There is only one pair of osprey in Wales<sup>9</sup>.

## **Invasive**

Invasive weeds are a serious problem in Snowdonia National Park. There are two main invasive plant species in Snowdonia NP: rhododendron (*Rhododendron ponticum*) and bracken (*Pteridium aquilinum*). Both cover thousands hectares of open habitats. The fern is native species for Wales but very aggressive and strongly competitive. It covers semi-natural open habitats like heaths and meadows.

The main habitats threatened by rhododendron in Snowdonia are woodlands, heaths and blanket bogs. 70% of population is distributed in forests. The origin of rhododendron is based in Mediterranean Basin. In 2008 the park authority has prepared the Rhododendron strategy control. The problem with this species is that it has very high seeds production. One bush produces approx. 1 million of seeds. The plant is toxic for animals; just the seedling can be eaten. For both

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<sup>9</sup> <http://www.visitmidwales.co.uk/see/thedms.aspx?dms=13&venue=1015157>

species, park staff fights by chemical methods. They use Monsanto Roundup, a powerful chemical. The main methods are:

- Drilling trunk and feeling hole by round-up,
- Spreading very diluted round-up from plane,
- Repeated spreading round-up on leave and cutting dried bushes,
- Cutting trunk and spreading round-up on the cut surface of the trunk.

Method for rhododendron combating:

1. Cut down the rhododendron shrubs,
2. When the sprouts grow back to 50 to 100 cm long treat them with chemicals,
3. Repeat the spreading with a watering every few years until the shrubs stop to re grown.

The maintenance phase is reached when rhododendron is reduced to a level where *it no longer has an impact on conservation interest and land use, and if left untreated, significant recolonisation would take many decades. By this stage, all mature bushes will have been located and successfully treated and there will be no more than occasional seedlings (say 100/ha). Flowering Rhododendron should be absent or extremely rare (say one small bush/ha). A 5-yearly sweep to locate and treat these plants (mainly hand weeding) will progressively reduce and remove these plants. The maintenance phase will never be reached if significant seed sources remain due, for example, to uncooperative landowners.- rhododendron strategy* (Report 2008 SNP Authority).



**Photo 19 - Dry shrubs of Rhododendron ponticum, Snowdonia NP  
(July 2010, U. Biereżnoj)**



The National Trust (NGO) elaborates also a method to fight rhododendron: they cut the rhododendron shrubs then they treat them with glyphosate (N-(phosphonomethyl) glycine) and plug them by special harvester. After these works they plant native tree species. In the first ten years the tree plantation needs lot of nursery. Even after ten years, rhododendron seedlings may appear, so a strain of seedlings is needed.

The governmental forest company made an attempt to destroy rhododendron. The method was successful but very expensive. The forestry state company decided that the threat from the species is not so strong to continue the action. The method was based on a fungi species called *Chondrostereum purpureum*.

Good example: During the field visit on a land where an investment is planned, and if the presence of invasive plant species is noticed. Then investor has to remove the invasive species before starting the building and has to decontaminate the soil from seeds. The soil has to be removed to special place and the investor has to show prove that he did it.

The animal invasive species which is more and more visible in the wild habitats is the American squirrel. This mammal is destroying a lot of trees by eating (grieving) bark.



**Photo 20 - Tree bark injured by squirrel, Snowdonia NP (July 2010, U. Biereżnoj)**

Other American species, common in the Park is the American mink. The method of eliminate this animal is similar to the one used in Biebrza NP. Just the period of capture is different. In Snowdonia, it starts in September and finish in March, it takes around 6 weeks. The caught animals cannot be let back to nature and have to be killed by air gun.

The wild goats are seen as a problem too. There are so many animals that tree regeneration is strongly hampered. They destroy habitats, mainly wood ecosystems by grieve young trees. Park Authority tries to reduce/limit the number of them. The task is done without a big mediatisation to avoid a bad image of the Park in the public opinion which does not agree with hunting animals as goats.

## **Natura 2000**

In United Kingdom, the Department of Environment, Food and Rural Affairs is responsible for implementing Natura 2000. Financial incentives are offered to landowners to encourage them to adopt environmentally beneficial land practices. The Department is supported by the devolved administrations in Scotland, Wales and Northern Ireland. The key bodies responsible for preparing, implementing and managing Natura 2000 sites in UK are among others: national parks authorities, Joint Nature Conservation Committee (JNCC)<sup>10</sup> and local governments.

There were no significant conflicts in preparing the Natura 2000 network. The country has a long history of countryside conservation and the delivery of Natura 2000 was aligned with the processes already in place for protecting Sites (or Areas) of Special Scientific Interest - SSSI (Areas in Northern Ireland - ASSI). In addition wide scale consultation was carried out prior to the submission of any sites. The key delays were due to consultation and negotiation with landowners, and withdrawal of planning or other consents (Report 2008).

All terrestrial land within SPAs and SACs is underpinned by SSSI which is designated under the Wildlife & Countryside Act 1981. There are 20 SPAs and 92 SACs in Wales, spread throughout the country. In Snowdonia NP there are 15 SAC areas and 4 SPA sites. In opinion of park staff few sites are missing in Snowdon area. The EU legislation is similar to the national law regarding SSSI and thanks to that Natura 2000 do not bring more tasks to deal with. Main body in Wales which is responsible for management of Natura 2000 is the Countryside Council of Wales (CCW). They are obligated to write Natura 2000 management and coordinate the field works. The plans are established one time and then updated. Prior to that, the document is checked by internal auditors. Five years later the plan is evaluated and commented. The document is mainly the same but often updated: which works should be done better, which works need to be continued, which activities should be stopped, etc. If the changes are crucial and there is a lot to modify, then a new document is written.

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<sup>10</sup> Consist of the [Countryside Council for Wales](#) (CCW), [Natural England](#), and [Scottish Natural Heritage](#) (SNH); provides scientific advice and knowledge on nature conservation; co-ordinates the input of the statutory nature conservation agencies to UK and international issues; oversees the common monitoring standards and research;

In general Natura 2000 sites are smaller than national park. In Snowdonia NP they are inside or overlap with limits of the Park. The Countryside Council of Wales is charged to do most of the management works. The CCW sees in the ecological network an opportunity to gather funds for the sustainable development of Snowdonia region. Most of Welsh politics often look to direction of nature conservation and more and more understand its values.

Funding comes from a wide variety of sources; the cost of implementing the directives has fallen upon a number of government departments and agencies as well as the local authorities and non-governmental organizations. In addition each of the four devolved administrations has different funding mechanisms. However, the identification, management and surveillance of Natura 2000 were usually funded from seven main sources:

- National conservation agencies;
- Ministry of Defence;
- LIFE Funding;
- Heritage Lottery (from November 1994 to November 2006);
- Department of Environment (to cover compensation claims in respect of permissions under Regulation 50 of the Habitats Regulations 1994);
- Environment Agency;
- National Rural Development Programmes due to agro-environment schemes (Report 2008).

## **Agro-environmental Measures**

On the area of Snowdonia NP the pilot AEM was carried out in 1992.

The Park Authority proposes to farmers a participation in the AEM if they see that the land has a high nature value and needs additional management or modification in present management. The base of the proposition is a quite actual nature inventory<sup>11</sup>, often made with help of other organizations like CCW. The contracts are negotiated individually with each farmer and signed for five or ten year. After five years each contract is verified (if the works are made correctly, if the conservation status of species increases or decreases, etc.). The contract determines also warranties and prohibitions. Park Authority contracts farmers for nature management works which are not included in the AEM payments. The payment depend on the type of work and vary from 5 to 8 £/ha/year. Other possible co-financing mechanism is a basic expense approximately 1,000 £/farmer/year for an extensive farming. Money for these contracts is coming from the Wales Assembly Government.

Moreover, the Regional Agency for Agriculture (responsible body for common AEM payments) is located in the national park headquarters and work in close cooperation with the park's agriculture managers. This brings fast information exchange and avoids double financing. The amounts of funds are the same inside the protected areas and outside of it, also according to Natura 2000 sites.

The farming control system is developed well. Main role is played by the CCW "fields" environmentalists. They are authorized to control the fulfilment of the contracts with farmers and can give a fine or a warning.

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<sup>11</sup> The nature inventory is made general without the scientific classification of plant associations. Only Natura 2000 sites have more detailed data according to the EU regulations made by CCW.



Park receives governmental funds for local sustainable development. This money is spread as CEA (Funds for sustainable development dedicated to the communes) and Small Grant Project Funds (100-200 £ for private people). Common farmer owns 60 mature cows plus young calves from last years. The common herd of sheep counts from 100 to 300 individuals.

## **Common land**

This is a land owned collectively or by one person, but over which other people have certain traditional rights, such as allowing livestock to graze upon it, allowing firewood collect, or allowing cutting turf for fuel. By extension, the term "common" has become to be applied to other resources which a community has rights or access to. The most modern usage of the word "common" is to refer to particular rights of common, and to reserve the name "common" for the land over which the rights are exercised.

In Snowdonia the rules of land use by farmers are based on the regulation from the sixties of last century. The rules are very complicate, the role and rights of each farmer who is a co-owner is written. The problem is that all of them want to use the resource of field but none of them wants to take care of it and/or invest their own money for nursery and land improvement. Due to this practice invasive species easily appears or the meadows are overused.

To find agreements with all owners for a nature conservation practice on common land is very difficult. The Park Authority tries to coordinate the use of land by signing the contracts with owner regarding tasks like grazing management, period of grazing, etc.

## **Forests**

Forestry Commission (WEG) is a governmental body for forest management but private companies are also common in Wales. In Snowdonia NP and around there are three private companies. One of them is Finish wood company. Most of the forests are conifer plantations; the oldest came from 1930-1940.

## **Rangers**

The rangers, called in Wales "wardens", are responsible mainly for coordination of field management works like mowing. The second important task is the maintenance of tourism infrastructure and to keep the order on the different types of tourism paths. They are subordinate to a director of nature conservation. Meetings with director are two times a year but each week they meet with their superior warden and give reports/feedbacks. Some of the rangers are responsible also for a national nature reserve inside the park. They are obligated to write monthly reports by filling the CCW data base.

The number of ranger is not high; only twelve persons work on this position. With the financial crisis there is a danger that next year the number will be reduced.

The role of the national governmental ecological organization:

Its name is the Countryside Council of Wales (CCW). The National Park Authority receives a big help from them by different studies and field works, e.g.: ecological expertise, environmental impact assessments, and scientific reports of conservation status of habitat, species and sites.

The CCW is responsible for protected areas like national reserves (NNR), sites of special scientific interest (SSSIs<sup>12</sup>), sites of importance for nature conservation (SINCs) and Natura 2000 sites (SAC, SPA). They do a lot of active management. They also give advice to The Wales Governmental Assembly.

Park receives lots of helps from non-governmental organizations. Main and most famous one is The National Trust. The example, which has been showed to me, represents a high ecological awareness of Wales's population. The National Trust has a farm in the Snowdonia NP where the extensive farming methods are examined (best practice) with scientific background. They also carry research on methods to reduce the influence of invasive plants species on native habitats, mainly rhododendron.

The NGO gather money (to buy farm) by charity. It was wide information action. Even the Prince of England has donated, also other famous people – movie stars – like sir Philip Anthony Hopkins and mainly lots of common Welshmen.

## **Tourist information**

The Park Authority does not deal with tourism activities. There are private companies which operate with it. Some problems can appear when too many companies are presents and that it becomes "out of control". The tourism companies do not need to have a permission to enter to the Park by car until they use the roads in legislation meaning.

The yearly number of visitors is approximately 160,000 people. The Park has built and manages 2,305 km of pathways.

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<sup>12</sup> The surface of SSSI covers 13% of Wales area.

## **7 - Hortobágy National Park (Hungary): Natura 2000 management, rangers service, conflicts issue resolution, agriculture and invasive species**

### **Background**

Hortobágy National Park is located on the east part of the country and is the oldest and the biggest national park in Hungary. It has been created in 1973 and covers 80,000 ha. Since 1999 it is a World Heritage Site (cultural criteria) and a very famous tourism destination. The biodiversity of the area is very high (more than 340 bird species were documented). Most of the land is state owned. These areas were given by government to the Park Authority after the common farm liquidation. Other lands were given by the State Army.

The most characteristic feature of the area is a mezotrophic rich steppe grassland, called the "puszta" in Hungarian language but more than 40% of Park area is boggy, marshy and swampy. Tisza River (one of the biggest river in Hungary) is located not far from Parks' boundaries. Until recently it was believed that this alkaline steppe was formed by the clear cutting of huge forests in the Middle Ages, followed by measures to control the course of the Tisza River, allegedly resulting in the soil's current structure and pH. However, Hortobágy is much older, with alkalinisation estimated to have started ten thousand years ago, when the Tisza first found its way through the Great Hungarian Plain<sup>13</sup>.

The aura and great climate of the Park have been created by human for many years, mainly by grazing and this is not only a great nature values but also a long and well preserve historical and cultural area. The authentic connectivity between nature and human gives great feeling of harmony and mysterious life-giving forces. It is great thing that this kind of place still exists.

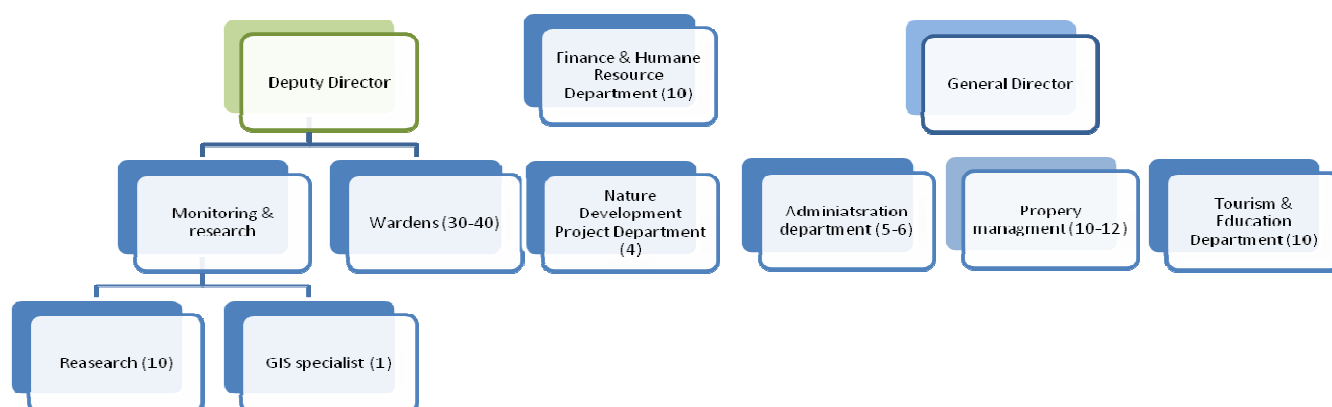
### **Structure**

The headquarters of the Park Authority is located out of limits of the National Park, in Debrecen. The Authority is responsible for whole protected areas in the Directorate Észak-Alföldi region (266,000 ha) – 120 sites. Since 2005 the Park Authority is an advisory body for the Regional Agency for Nature Conservation, before they were working as one organism.

The authority owns land for approximately 100,000 ha. Some of the plots are used for agriculture but in different ways. They use them to produce grass seeds (a seed bank of a natural meadows), agriculture experiments – how to use land in the most nature friendly way. Most of the hectares are use as common fields to produce fodder for animals. Park owns also animals - lot of local and native breeds. Most of the area is lease to farmers.

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<sup>13</sup> <http://en.wikipedia.org/wiki/Hortob%C3%A1gy>



**Figure 3 - Structure of Hortobágy National Park (numbers show the number of employee in each office)**

The main Director is often on the field and he controls the work of the rangers. The Hungarian environmental legislation is working well. The rules are sharper in two meaning: there is no compensation payment for animal damage on the field and it does not matter if it is inside the protected zone or outside.

## Management

The area of the Park is divided in zones which differ in the management. There are two wilderness zones. One is located on the post military land. There is no anthropogenic intervention since Army left. Nature orders by itself. Only in winter time people enter there to cut down the reed (*Phragmites australis*). Dominate habitats is wetland, mainly swamps and bogs, all area covers 3,000 ha. The second zone is designated on the puszta habitat (a Pente-zub Reserve) and covers 2,400 ha, fenced. The site is dedicated to save the natural habitat influenced just by grazing of primeval animals' breeds. Herds of Przewalski's horses (*Equus przewalskii*)<sup>14</sup> (around 120 individuals in 2010) and very old breed of cattle (+/- 400 individuals in 2010) live together. The Park Authority in cooperation with Dutch scientists reintroduced them in the wild. The main factors creating the landscape there are grazing and fire.



**Photo 21 - Native cattle breed from puszta and Przewalski's horses, Hortobágy NP (May 2010, U. Biereżnoj)**

<sup>14</sup> The Przewalski's Horse is considered the only remaining truly wild "horse" in the world and may be the closest living wild relative of the domesticated horse, *Equus caballus*.  
[http://en.wikipedia.org/wiki/Przewalski%27s\\_Horse](http://en.wikipedia.org/wiki/Przewalski%27s_Horse)

The opposition to nature protection is an active management (conservation). The HNP Authority uses unconventional methods, as habitat management by water buffalos. The water buffalos are very good “machines” to fight with reed association and secondary succession on wetlands. Unfortunately, buffalos cannot be used in north-east Poland due to their vulnerability for low temperature.



**Photo 22 - Water buffalo management, Hortobágy NP (May 2010, U. Bierežnoj)**

Most of ongoing projects (most of them financed by LIFE mechanism) are dedicated to protect birds' species, like: great bustard (*Otis tarda*), red-footed falcon (*Falco vespertinus*), roller (*Coracias garrulus*), bee eater (*Merops apiaster*), sand martin (*Riparia riparia*). Especially the last two species management is simple and successful – creation of new sandy cliffs or renovation of existing one. There is just one rule; the new places have to be close to the current birds' colony. The conservation of roller is based on construction of the artificial nest-boxes. Actually the AE Measures are also an important component of the *Otis tarda* conservation strategy.



**Photo 23 - Gleam devices to avoid death of birds on power lines, Hortobágy NP (May 2010, U. Bierežnoj)**



In addition there is a rehabilitation centre for birds' species which specialize also in a predator birds breeding. Some of treated animals cannot be given back to nature (e.g. cannot fly). There is a big aviary where the birds are joined in pairs. A method is very smart, similar to the cuckoo behaviour: the eggs of birds from the captivity are dropped to the nests of birds (of the same species) in the wild. Rangers have quite a lot of success stories with birds breeding.

## **Invasive**

The main invasive plants in Hortobágy NP are: black locust (*Robinia pseudoacacia*), black cherry (*Prunus serotina*), and maple ash (*Acer negundo*). They use a mix method to eliminate these plants from the ecosystems. The mix method means: mechanical and chemical techniques. As chemical they use Medallion (glyphosate). The mechanical methods vary.

Medallion is applied on the end of vegetation season. It is the only way to fight with maple ash.

For others invasive plants, young specimens (less than 25 cm of diameter) are debarking at 1,3 m high. If the individual still exhibits high vitality the glyphosate is used. The gaps after invasive species removal are planted by native trees species.

The monitoring and evaluation of techniques are made by rangers and the plantation of invasive plant species in the forests inside Natura 2000 sites is not allowed.

## **Natura 2000**

The ecological network covers more than 20% of Hungarian terrestrial territory. There are 481 SACs areas and 68 SPAs sites. The designation process is finished. In Észak-Alföldi region there is 6 SPAs sites and 120 SACs areas in total and they cover around 363,000 ha. The area of Hortobágy SAC site covers 105,000 ha. Most of the local inhabitants have a positive feedback on Natura 2000 network. The national nature legislation is strong and inhabitants of protected areas are used to restrictions. The most visible opposition (against Natura 2000) is made by amelioration specialists. It was seen during the management plan preparation (consultation) for SPA site in Bihar. Unfortunately the legislation changed and the plan does not fulfil the formal standards. The Authority prepared a new version and sent to the Ministry of Environment. They are actually waiting the approval. The plan is not detailed and just shows the direction for conservation methods where they should apply and how. There is no organization charged of the tasks' realization, no timetable and no financial resources written down.

Most of the sites do not have much more than SFD information; there are no dedicated funds to write the management plans for Natura 2000 sites. The management plans are parts of the rural development program. The sites which overlap or are inside national park can base the management on the existing management plans of park. On these areas the active management is done incidentally within works planed in the management plan of national park. The rangers of Park Authority have the position of supervisors and managers of Natura 2000 sites. They are also kind of messengers of Natura 2000 to locals.

But decision making body is the Regional Inspectorate for Environment and Water Resource.

In Hungary, monitoring of species and habitats of Community interest is done through the National Biodiversity Monitoring System, initiated in 2001. New species and habitat types were added to the monitored biota 26. The framework of Nature Conservation Information System has also been prepared (Report 2008).

The monitoring measures in Hortobágy NP mainly focus on birds species. The works are done occasionally according to actual needs and opportunities, mainly due to EU nature funds programs like LIFE. There are no formulated national objectives of conservation habitats and species.

In Hungary there is no special instrument or thematic action program dedicated to finance Natura 2000 network (designation and management). Management works are partly funding by EU structural funds and by LIFE programs.

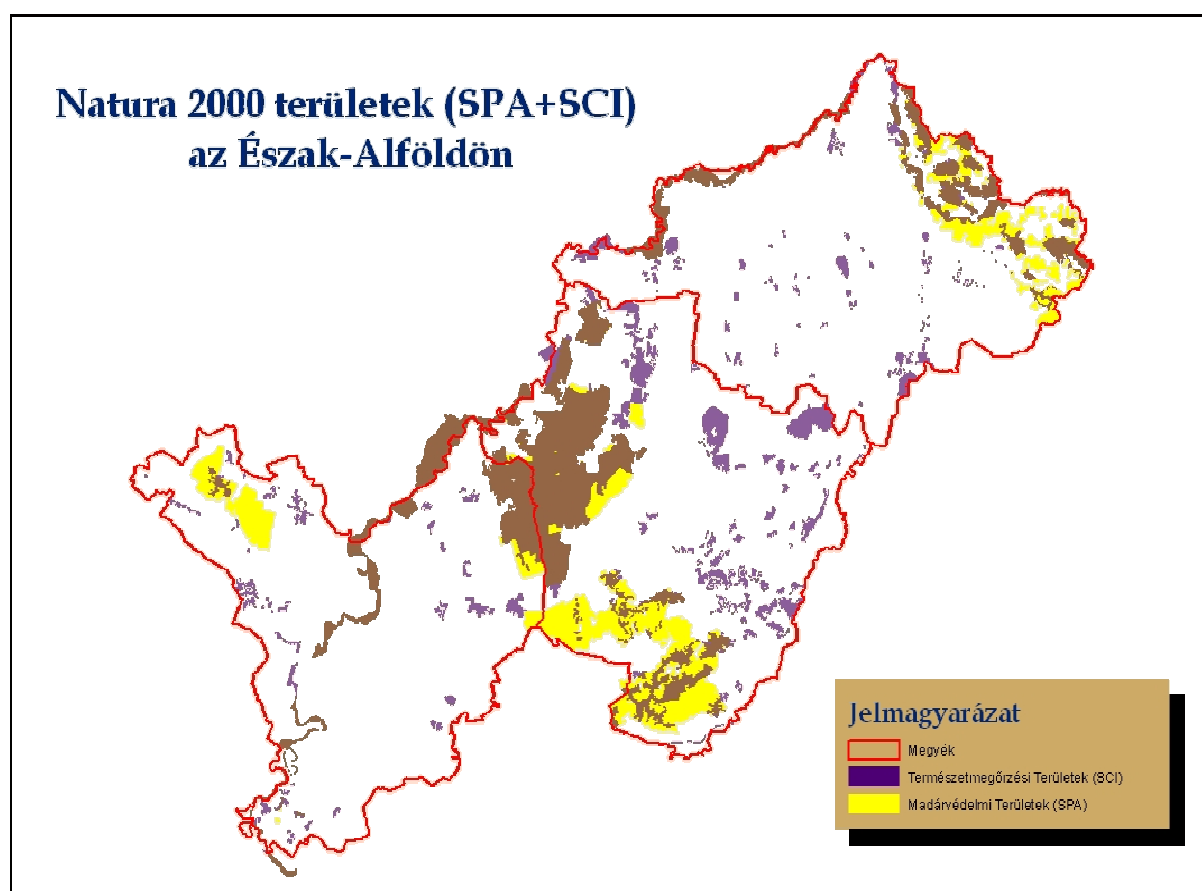


Figure 4 - The Natura 2000 network in Eszak-Alfoldon region (Hortobágy NP Authority, 2010)

## Agro-environmental Measures

The AEM is voluntary and not subject only to Natura 2000 network. Not whole territory of Hungary is covered by AEM payments. It depends of the regional governments. There can be different in each region (e.g. South of county has other AEM package than east part). There is no mechanism to finance the forest ecosystems for the moment. The AEM are dedicated mainly to areas called Special Areas of Nature High Values which overlap with Natura 2000 network and

national parks. Some of the AEM rules are general and obtained around whole Hungary, like the mowing period. Normally mowing is allowed from 15th June but if the grassland is recognized as a high nature value area or is located on protected area, the farmer has to get permission from the Park Authority or the Regional Inspectorate for Environment and Water Resource. At least five days before mowing, the owner has to inform Park Authority about mowing date. Then a meeting is arranged with rangers in order to discuss if the date is not harmful for the biodiversity of the plot. If everything is all right, rangers give the permission, if not they try to reach a compromise by negotiation (for farmers who do not participate for AEM). Consensus can be reached by dividing the plot to two parts and mow it in two periods – the first one earlier and second later. Farmers can apply for a compensation payment of about 38 €/ha (only for grassland) in case when he follows the ranger advices about the management of the plot. This payment is dedicated only to farmers who do not participate in AEM. To receive the compensation payment, the farmer has to apply for it, but a fine for not proper mowing or grazing (of the plot) comes automatically.

The Agro-environmental Measures dedicated to nature conservation consist of a restoration package for grassland. The agreement lasts 5 years. The farmer who decide to re-naturalize his meadow can receive 310€/ha for a three years program.

The wardens serve as AEM advisers for farmers; on the other hand they are controllers of the tasks which farmers undertake with AEM. In case of some failure they can inform the Regional Agriculture Agency or give a fine, e.g. destruction of great bustard (*Otis tarda*) habitat can cost approx. 4000 € outside of protected area, inside the site the fine is multiply by 2 or 3. The rangers are allowed to take soil samples from the field and give them for analyzes. Fertilization is allowed only on arable fields, just by natural nutrients. Grassland can be fertilized due to grazing. Grazing starts 15 of April, there is no limitation in number of grazing animals but the land cannot be overgrazed. There are others interesting AEM rules: the mowing machine has to have a special device in front of it to frighten away animals.

The AEM in Hungary on the areas of high nature values are adapted to the local need for nature conservation. In Hortobágy NP, great bustard is the most important value and corn creak (*Crex crex*) is a key species in the other protected area on the North-East of the region. The observation of corn creak has been carried out since the eighties there. A monitoring is made on May each year (by volunteers and rangers). These annual observations say which farmers can apply for "corn crake package". AEM also gives opportunities to farmers who are already in the package to mow meadow earlier if the monitoring showed no birds at that time/year, otherwise they can start works after 1st of August. The AEM requirements are made very individually which gives very good effects on nature conservation. The system sign in an idea: Think globally works locally.

Each year in an autumn time 5% of random farmers on protected sites are controlled by the Agriculture Agency. A field visit is done with rangers.

To help farmers on a "global" market the Park support regional professions like shepherds, cheese makers, etc., also by lobbying the regional products (HNP stamp approve).

There is also strong lobbying for native breeds of farm animals protection. The Park Authority is strongly involved in the initiative as well and they support the regional handcart and old professions, especially shepherds.

## **Forests**

State forests inside the park are owned by separate state company. The State Forestry Enterprise comes under the Ministry of Agriculture and Regional Development. The Authority has influence on the forest management carry out by State Forestry Farm. They provide nature data to them and they participate in process of long term Forest Management Plan creation.

The main problems are with investors and not with farmers (transport infrastructure, industry zone). Other big conflict is on conservation field. There is no transposition of EU legislation or national instruction which regulates the forest management inside Natura 2000 sites. The forest management is restricted on the Natura 2000 sites which are also nationally protected areas. These limits are not applied on sites which are protected just as Natura 2000 network. In 2008 there was a case that foresters legally cut down 148 ha of forest habitat (annex I Habitat Directive) in Natura 2000 site which is not protected by national legislation. The case has been registered in Strasbourg EU court.

## **Rangers / wardens**

Most of rangers in Hortobágy NP have PhD education. Their work varies a lot. They have to be ecologist, psychologist, farmer and policeman at the same time. Wardens in HNP write project, do research, and educate farmers and children. They are involved in many international projects (mainly ornithological ones). 60% of projects in Park (nature conservation projects) were written and they are realized by rangers. In my opinion, these people are showing the fundament of proper management of nature resources on protected areas. If all Polish parks will employ well educated and motivated people at the right position, the status of nature protection area will be much better and the knowledge higher (environmental data base). Wardens are obligated to write monthly reports from the field work and also reports about the Natura 2000 species status which they present to the Research and Monitoring Section.

## **Tourist information**

The tourism infrastructure is managed very well. Most of the tourists' areas are located close to each other in surrounding of the Hortobágy town. For the next year an opening ceremony of a safari is planned.

## **8 - Conclusion**

Aims of my trips vary from administration and management to local development subjects. I had great look on the nature conservation areas management. I got possibility to compare the theory with the practice and see the European standards in nature conservation. There are many differences between each country and even between each protected areas. The experience of the people who I met showed that Natura 2000 is not the enemy number one of local development and that in most of cases, it does not influence the aim of regional and local governments. Moreover, the network can support naturalists to conserve a high nature value in a better way due to the European legislation. It certainly brings additional works but in all areas where they take place, these works are helping to enhance the regional values. In the beginning of Natura 2000 network creation process; there was a lot of negative feelings and frights among inhabitants of these areas. Now most of them are saying that there is not a big difference before and after the network establishment. Some, even, could find the source of income and use the Natura 2000 label for their own.

These examples gave me positive feedback and raised my reflection that also in Poland, the acceptance of Natura 2000 network will constantly grows. I observed that the image of Natura 2000 partly depends on local authorities. Positive feedbacks from them reassure inhabitants. This is mainly due to gaining the extra funds which are dedicated to Natura 2000 network and using Natura 2000 label as a new opportunity to diversify local development. As all the representatives from visited areas said: the beginning was not easy. But later on, they added: but slowly with communication, the cooperation starts to bring the first benefits.

Ways of understanding circumstances, legislations and right valuations of aims heavily differ from Poland and western European countries. French or English people are able to look further in the future: 30 - 50 year ahead. They have other experiences which do not mean that they did not make mistakes in the past. Polish people look in short term and Polish politics look even shorter like four year term.

In France you can see a good cooperation for the sustainable development and that the priority is strongly put on regional and local heritage. In Poland the situation looks very similar, but most of cases are simply written on paper. Especially in Podlasie region (North-East Poland) where politics give the impression that they do not want to listen to others, as they were very clever.

Bretagne examples show that cultural and historical heritage are the most important value of the region. People there learned that an airport or big hotels on the cost do not bring more tourists (sometimes even less) and that the sustainable development and natural values are attractive for tourists. They are proud of their culture and their heritage, and they use it for profits, contrary to Polish.

The example of Snowdonia NP shows that people there though similar to Polish. The regional government said that good transport infrastructures will bring more



tourists on the cost what will generate more incomes for the communes and locals. The roads were built. And now, there are more visitors but they bring less income to the area. Due to these new infrastructures, tourists are able to travel and return in one day which means that they do not need any accommodation and they will spend less money for meals and other activities.

On the other hand, my visit to Belgium showed that nature protection priorities cannot always win with economical business and interests of world corporations. I could see how difficult is to protect nature in a small country. Belgium nature has a human touch as most of lands have been restored. Now I understand the meaning of "wilderness area" for Biebrza Valley in Poland. On the other hand, I was positively surprised of their innovation and strong motivation for nature conservation. It is a good example showing that human life without nature is difficult and less pleasant.

I brought the strongest impression from Hungary. Our countries were on similar step of development in the past, both had similar politically-historical circumstances but looking on national parks management there and in Poland, a big difference can be seen. Once again, management documents look similar but in practice they differ significantly. In my opinion, the reason is hidden in the employee values. Well educated people are the foundations of proper management of nature resources on protected areas. If Polish parks employ educated and motivated people on the accurate position, the status of nature protection areas will be much better and the environmental knowledge will increase (environmental data base). I wish that the implementation of that successful management, as it is in Hortobágy NP, will be soon possible in some Polish national parks.

To summarize, management, methods and conservation objectives are similar. Mainly two things are worth to underline: management of invasive plants species in all visited countries is based on combined method (mechanical cutting with use of chemicals) and Agro-environmental Measure works better when they are implemented individually for each plot than the measures established on national level.

The additional works for personnel according to management of Natura 2000 site did not generate extra/new positions. In each case, not more than two new people were employed to deal with that subject.

The financing of management works is based on the same EU funds in all visited countries. The EU budget supports the Natura 2000 processes mainly through EAGGF funds, and additionally, through LIFE fund program (Report 2008), including Agro-environmental Measures. Only France and United Kingdom support the network from the national budget. In France local government can also grant subsidies to create and manage Natura 2000 sites.

In general, protection significantly increased in all visited countries due to Natura 2000 network implementation. Conservation work has become more systematic and general information about habitats has been improved. Natura 2000 has also drawn its attention on some habitats which were not well protected in the past.

I would like to ask Polish authorities for the creation of a local development program including the natural and cultural heritage of our regions. It could be grateful to strongly support our regional small/medium farms and local production by creating markets for regional goods. The most important is to maintain and protect the unique character of our regions which has been established by our ancestors. These activities needs more work and engagement but will bring more stable and more sustainable results. All countries promote organic farming and local breeds of farm animals. There are special programs to co-finance husbandry. The western countries give additional funding to Natura 2000 management which helps to solve problems on the nature conservation field with stakeholders, like agriculture.

## **9 - Glossary**

AEM – Agro-Environmental Measures; type of the European Union Common Agriculture Subsidies dedicated to nature – friendly agricultural practices;

ANB - Agentschap voor Natuur en Bos ; Flemish Agency for Nature and Forest;

ASSI - Areas of Special Scientific Interest (refer to Northern Ireland);

CCW – Countryside Council of Wales, governmental institution responsible for nature conservation in Wales, especially management of Natura 2000 sites;

COMMON LAND - is land owned collectively or by one person, but over which other people have certain traditional rights, such as to allow their livestock to graze upon it, to collect firewood, or to cut turf for fuel  
([http://en.wikipedia.org/wiki/Common\\_land](http://en.wikipedia.org/wiki/Common_land));

COPIL – from French “Comité de Pilotage”; Steering Committee;

CSRPN - Conseil Scientifique Régional de Protection de la Nature; Regional Scientific Council for Nature Protection;

DOCOB – “Document d’Objectives”, French management plan prepared for Natura 2000 sites;

EIA – Environmental Impact Assessment;

INBO – Flemish Research Institute for Nature and Forest;

JNCC - Joint Nature Conservation Committee; is the statutory adviser to the UK Government on national and international nature conservation. Its work contributes to maintaining and enriching biological diversity, conserving geological features and sustaining natural systems. The JNCC is a non-departmental public body (<http://www.jncc.gov.uk>);

LIFE Program - European Fund Program, one of axes is dedicated to nature conservation, especially Natura 2000;

NATURA 2000 (N2K, N2000) - European ecological network of protected areas in the territory of the European Union;

NCO – National Conservation Objectives;

NER - Nutrient Emission Rights;

NGO – Non-Governmental Organization;

ONF – “Office National de la Forêt”; French Forestry State Company;

RAMSAR site - wetland protected under the Ramsar Convention - The Convention on Wetlands of International Importance, especially as [Waterfowl](#) Habitat adopted in 1971;

SAC – Special Area of Conservation; required by the European Habitat Directive from 1992;

SPA – Special Protection Area; required by the European Bird Directive from 1979;

SSSI – Sites of Special Scientific Interest (refer to United Kingdom);

## **10 - References**

- 1 - Report on implementation of Natura 2000 network in Europe, 2008. Coordinate by Court of Account of Finance with the technical assistance of the European Court of Auditors.
- 2 - Rhododendron in Snowdonia and a strategy for its control, 2008. Snowdonia National Park Authority.