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The 25 years of the Bern Convention

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Chief Editor
Catherine Roth
Director of Culture and Cultural and Natural Heritage

Director of publication
Maguelonne Déjeant-Pons
Head of Spatial Development and Landscape Division

Concept and editing
Christian Meyer
christian.meyer@coe.int

Naturopa Network Bureau
Paul Drury
Chair of the Steering Committee for Cultural Heritage (CDPAT)
pdrury@ftech.co.uk

Adriana Baz
Chair of the Committee for the Activities of the Council of Europe in the field of Biological and Landscape Diversity (CO-DBP)
baz@mappm.ro

Maria-Jose Festas
Chair of the Committee of Senior Officials of the European Conference of Ministers responsible for Regional Planning (CHF-Cemat)
gabdg@dgotdu.pt

Layout
Emmanuel Georges

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R.-P. Lebeau

The Convention on the Conservation of European Wildlife and Natural Habitats or Bern Convention

Council of Europe

A wind of change, like a new Renaissance, came along in the wake of May 1968 and its liberating ideas, inspired by the global views of the Club of Rome. At the time, ecology, ecosystems and biodiversity were terms used by the scientific fraternity alone. The competent institutions, governments, non-governmental organisations and a handful of individuals were of course already active in the field of nature conservation, but it was not an issue that aroused widespread interest among policy makers and the general public.

European Nature Conservation Year, launched by the Council of Europe in 1970 was a resounding success. Public opinion suddenly became aware of the immeasurable value of the natural environment which was visibly being destroyed throughout the whole of planet Earth, photographed by the astronauts walking on the moon. However, there was no international convention at world or regional level devoted to the protection of the planet's wild flora and fauna.

How can one forget those marathon sessions in the committee drafting the future convention, when a Danish pipe-smoking lawyer did all he could to placate the pragmatic but ardent Irishman – a great otter hunter – aghast at the Swiss representative who was justifying the inclusion of this proud carnivore – already on the CITES list and later to become the symbol of the convention – in Appendix II for species which had to be afforded strict protection. Or the "naval" battles with an illustrious lawyer from St. Malo, a relentless negotiator on the law of the sea, who with his logic and rationality steered a more realistic course amidst the bursts of audacity and unfettered idealism of the naturalists present.

Out of these lively debates emerged, in the form of principles, the unique features of the Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention), a front-runner in the field of conservation.

As an eminently cultural text, the convention constitutes an appeal to humankind and emphasises the latter's role as manager of a common, natural and landscape heritage which it is imperative to preserve and bequeath to future generations.

It incorporates the principles of irreversibility, prevention and precaution, and states that the absence of conclusive scientific certainty should not serve as a pretext for delaying the introduction of effective measures.

At the very foundation of the convention lies the principle of "sustainable development", even though this term did not become current until 1992 and the Rio Declaration, in so far as contracting parties undertake to adopt the necessary measures to maintain the population of wild flora and fauna at a level which corresponds in particular to ecological, scientific and cultural requirements, while taking account of economic and social needs.

The convention also includes the principle of integration, in other words that wildlife and habitats must be taken into account in and be an integral part of all economic and development policies, such as regional/spatial planning, farming, transport or tourism. This point was developed in the 1994 Monaco Declaration on the role of the Bern Convention in the implementation of worldwide international instruments for the protection of biodiversity. It is therefore important to ensure that biological and landscape diversity is also conserved outside protected areas.

Well before the fall of the Berlin Wall, the convention promoted and encouraged the principle of outreach and solidarity, and encouraged co-operation between states within and outside the borders of western Europe, since from the very beginnings in 1979 it was open to the countries of central and eastern Europe and of north and west Africa.

From the outset, the convention has espoused the principle of participation and transparency, fully involving the relevant governmental and non-governmental organisations, thereby setting up effective and creative partnerships.

It has also been heavily committed to international co-operation, complementing and interacting with the United Nations Convention on Biological Diversity, the Ramsar Convention on Wetlands, the Convention on the Conservation of Migratory Species of Wild Animals (Bonn Convention) and its agreements, the Convention for the Protection of the World Cultural and Natural Heritage and the European Landscape Convention, as well as other institutions at pan-European and world level, active in the field of biodiversity conservation.

It is therefore not surprising that the Bern Convention, a formal legal instrument, constitutes a particularly dynamic regional international framework, which is both flexible and precise, political and pragmatic, appreciated and acknowledged by the contracting parties who are committed to its application in the interest of our common heritage and future generations.

Raymond-Pierre Lebeau
Swiss Representative on the Standing Committee of the Bern Convention
Head of the Ecological Compensation Division, Federal Office for Environment, Forests and Landscape
CH-3003 Bern
Raymond-Pierre.Lebeau@buwal.admin.ch

How the Bern Convention came into being

From the outset, the Council of Europe focused considerable attention on the protection of the natural heritage. The first publications in the *Nature and Environment* series, for example, were devoted to forests and endangered mammals.

It is therefore not surprising that in view of the deterioration of biological diversity and natural habits (wetland drainage, eradication of the *bocage*, etc.), the European Committee for the Conservation of Nature, formed in 1962, very soon decided to step up its activities.

So, in Brussels in 1976, at the 2nd European Ministerial Conference on the Environment, Switzerland presented a study recommending the drafting of a convention. The aim was to protect the fauna, flora and natural habitats of Europe. At the time, the Council of Europe had less than twenty members and it was in the middle of the cold war period. There were no official contacts with the countries in the Communist bloc, except with a small number of experts.

At this Brussels conference, Norway suggested that, in view of the political situation in Europe, an international legal document be drafted that was not restricted to the Council of Europe member states alone, so that the non-member countries of the Communist bloc could accede to it more easily. Under this proposal, the Council would simply provide a secretariat for the contracting parties. Ultimately, this proposal was not accepted as the majority of countries felt that the Council's accumulated expertise in this field should be exploited to the full and, consequently, that the convention should be firmly part of the Council of Europe's corpus.

The Bern Convention was drafted over a period of three years by an ad hoc committee and opened for signature by member states on 19 September 1979, at the start of the 3rd European Ministerial Conference on the Environment in Bern. Eighteen of the twenty-one countries signed the text that day, which is something of a record number. Without going into details, it has to be said that the drafting process was made a little more complicated by the fact that the European Commission in Brussels was in the process of drafting its Council Directive on the conservation of wild birds (Birds Directive) at the very same time.


Council of Europe

Bern where the convention was opened for signature

Marathon discussions

Drafting the convention involved some marathon discussions which remain clearly in my mind. While the majority of delegations felt that the correct approach was to draw up a list, based on scientific criteria, of animal species that required total protection (the current Appendix II), Germany called for the inclusion of all the various species of sparrow, and Denmark insisted on affording protection to the nightingale. There was also much discussion about including in the list certain species which were genuinely endangered in Europe, such as the lynx, the otter and the wolf, even though some of these were being hunted in a perfectly regulated way. Not only that, it was human beings who demanded that they be hunted! The outcome of these sometimes bitter discussions is an indication of the working climate and the commitment to co-operate at all costs which has always prevailed amongst the contracting parties. In this way, solutions were found in all cases, primarily thanks to Article 9 of the convention which allows for exceptions, but under very precise conditions.

Among the substantive discussions, those concerning the protection of habitats (Article 4) were undeniably the most important and the most difficult. Did this article need to be further developed? Should efforts be made to lay down identification criteria and implementing conditions? And perhaps more importantly, should it refer explicitly to the networks of protected areas which could serve as its basis (the networks of biogenetic reserves and the areas awarded the Council of Europe's diploma, plus the Ramsar networks, the Unesco natural and cultural heritage networks, and the anticipated results of the work of the European Commission – the future Natura 2000)? Once again, common sense and a flexible approach prevailed, resulting in an Article 4 which may appear very general (excessively so perhaps), but which has proved to be effective, thanks to the case-law which has gradually been built up in this area.

In explanation, it should be pointed out that from the very outset, and in line with Council of Europe tradition, non-governmental organisations (NGOs) were invited to play an active part in the implementation of the convention. These national or international NGOs can submit precise details of a given country's failure to comply and this in turn can lead to a file being opened and an expert appraisal undertaken on the spot. The Standing Committee, the convention's decision-making body comprising representatives of the contracting parties, looks at each case and takes the appropriate decisions.

The skill of Ambassador Seidenfaden (Denmark), chair of the interim committee, then Ambassador Wacker (Switzerland) and their successors made it possible to avoid falling into the trap of producing a convention that was too demanding – and which some countries would therefore find impossible to apply – or a weak convention which made for no real progress.

May this jewel in the Council's crown long continue to shine!

Jean-Pierre Ribaut
Former Head of Division of the Environment and Natural Resources
27 rue Rabié
F-33250 Pauillac
jeanpierreribau@wanadoo.fr

The Bern Convention and I

It is difficult to write about the Bern Convention in an objective manner, ignoring the fact that the Bern Convention and I have had a very special relationship, and that it has always been close to my heart. I was present when the idea of developing a broad comprehensive European nature protection convention was launched at a Council of Europe conference of ministers for the environment by a young Norwegian Environment Minister, Gro Harlem Brundtland. I attended that conference as assistant to the Danish Ambassador, Gunnar Seidenfaden, who was representing the Danish Environment Minister, and to whom the task of chairing the negotiations of the proposed convention later (November 1976) was entrusted. I headed the Danish delegation during the negotiations (1976-1979), and I participated in the ministerial conference in Bern (1979) when the convention was adopted and signed. I was chairing the Danish delegation at the first meeting of the Standing Committee after the entry into force of the convention (1982). I chaired the Standing Committee until 1989, which provided me with an opportunity to work closely together with a number of devoted and very capable civil servants of the Council of Europe. I was in charge of the ratification process in Denmark and have been responsible since the beginning for Danish implementation of the convention. I experienced the growth of the convention in respect of both its importance and the number of contracting parties, and I experienced its maturing process.
So, what should I highlight on the occasion of the twenty-fifth anniversary of the Bern Convention?

A Danish experience

First, a small, but important event from my own country. Before the Bern Convention only one species of amphibians and reptiles was protected (*Triturus alpestris*). Attempts had been made by the National Nature Protection Agency to protect all those species, but the Department of Environment had turned down all proposals, and once a draft regulation was used as the subject for a song at the annual Christmas revue of the ministry. However, due to the Bern Convention a general protection of all Danish species of amphibians and reptiles, including the viper (*Vipera vipera*) was carried through, an example demonstrating that the Bern Convention was not set up on the basis of the lowest common denominator principle.

The case file system

This is not the place for a full review of the case file system, but a few remarks should be made. Although this procedure was developed, in essence, twenty years ago, before the issue of "compliance" became popular, it comprises most of the features of modern compliance mechanisms, that is, a mechanism *inter alia* of a non-confrontational, non-judicial and co-operative nature. However, the convention case file system also has some rather unique features, among them that it permits complaints from NGOs, and that it is extremely transparent allowing for full participation of NGOs in deliberations. It is true that the procedure is not perfect, but neither probably is any compliance mechanism, and it is beyond any reasonable doubt that the Bern Convention case file system has accomplished a lot.

The Bern Convention and the Habitats Directive

A further success story of the convention is that it is probably one of the main reasons for the adoption of the European Community (EC) Habitats Directive (Directive 92/43/EEC, 21 May 1992, on the conservation of natural habitats and of fauna and flora). The convention is not recognised and reflected in the "considerations" of the directive (which, by the way, is an expression of rather typical European Community behaviour!) but it is no secret that the European Commission in the late 1980s was worried about the rather poor implementation of the convention by a number of EC member states, taking also into consideration that the EC as such was a contracting party to the convention. So, the Bern Convention might be regarded as a means of implementation and enforcement of the convention at European Union (EU) level. In any event, a comparison of the two instruments reveals a number of striking similarities between, for example, their provisions on species protection and some of their appendices.

The Bern Convention and the Convention on Biological Diversity (CBD)

Whether the Bern Convention also served as a source of inspiration for the 1992 United Nations Convention on Biological Diversity (CBD) is probably doubtful, but it is a fact that the coverage of the Bern Convention with regard to biological features is almost as broad as the CBD, most of all because the Bern Convention in principle covers all natural habitats. To some extent the Bern Convention even aims at protecting the gene pool of wild fauna and flora with its reference to sub-species and varieties in Article 2. Modern traits are also embodied in the preamble referring to inter-generational equity (indirectly) and ecological balance, as well as in Article 17 providing a simplified "opt-out" procedure for amendments to the appendices. The notion of "sustainable use" is not reflected in the convention, but should this really be considered as a shortcoming? After all no provision of the convention seems to prevent sustainable use.

The future

It is difficult to find any major failures of the Bern Convention. It is still a modern, comprehensive regional agreement. Also it is still needed. It is true that the enlargement of the EU poses some risks because the majority of the parties to the convention (25) are now under the more strict obligations of the Habitats Directive. However, a number of parties (19) are not member states of the EU, among them the African states parties to the convention (Burkina Faso, Morocco, Senegal and Tunisia), and there is still a need for co-operation between those parties and the member states of the EU regarding protection of wild fauna and flora as well as natural habitats. I am quite sure that the Bern Convention has a long life ahead of it.

Veit Koester
Chair of the Standing Committee
of the Bern Convention 1986-1989
External Professor at Roskilde
University Centre, Denmark
Visiting Professor at UN University
Institute of Advanced Studies of Yokohama
Fondazione Aage V Jensen
Centro Residenziale (CR)
53 Capo Berta
I-18100 Imperia
veitkoester@mail.dk

Courteau/Bios

The alpine newt (Triturus alpestris)
was the only amphibian protected in Denmark

JL Gonzales Grande/Bios

Iberian lynx (Lynx pardinus)

A laboratory of ideas

Conventions are not only legal texts that bind states, they are also human adventures, frameworks for discussion and exchange of views and for innovation in international relations, living initiatives, laboratories of ideas. As important as the text itself is what people and governments build around a convention, how they shape its content and substance, how their work has influence on changing policies and attitudes. In the field of biological diversity, the Bern Convention was the first international European text to try to cover all aspects of nature conservation, and not just a particular group of species or a certain type of habitat. This approach was bold and innovative and paved the way for the most influential treaty in this field, the Convention on Biological Diversity of 1992.

Holistic point of view

If the text was a major breakthrough in dealing with biodiversity issues from a global perspective, the Bern Convention was also forward-looking in other aspects. One of these was that its governing body decided to meet at least once a year: between 1982 and 2004, twenty-four meetings have been held of its Conference of the Parties – the "Standing Committee" (more than twice as many as comparable biodiversity-related treaties). This has created an inspired and confident working atmosphere in which most delegates know each other personally quite well, enabling friendly negotiation of solutions, which a delegate some years ago called "a club spirit built on a gentlemen's agreement" (at a time when there were indeed – and unfortunately – few ladies represented at the Standing Committee and certainly fewer language constraints). Most of the Bern Convention delegates also often meet in other Council of Europe or European Union fora, so decisions by consensus have become the rule in the adoption of positions and texts, including the 115 recommendations and resolutions adopted. There is not always agreement on everything – and the animated discussion on certain difficult cases involving presumed breaches of the convention by some states has enlivened many meetings – but on the whole the culture of agreement and compromise wins the day. States play the game, take the convention seriously and work hard to deliver solutions to help the conservation of biological diversity.

Opening up to civil society

Another factor that contributes to making the convention and its meetings a living forum is undoubtedly its openness to civil society, represented by a vast and varied membership of conservationist organisations. NGOs are the salt and often the teeth of the convention. Although the convention is primarily an agreement between parties, NGO participation has always been so welcomed and encouraged that they have become major players, actors that can raise burning issues, ask the embarrassing questions, point out with precision where the convention is not working properly, and suggest solutions. There are few biodiversity-related treaties in which NGOs participate so actively and influence so much the agenda and the outcome. It is also true that NGOs have become very professional over the years and they bring extraordinary scientific and technical expertise which helps progress in many conservation issues. They are also strongly committed to conservation and open to working with government and to supporting conservation agencies (politically and technically) wherever possible.

Real conservation issues

A third factor that contributes to the convention's progress is the way in which it does not shy away from difficult issues and always maintains its interest in down-to-earth matters. It may look vague or too idealistic when it adopts an action plan for management of certain species over the whole of Europe, but it reacts quickly and without hesitation when one or other population may be at risk, making on-the-spot visits, talking to local people, to managers, to governments, to NGOs, proposing solutions and acting as an "honest broker" among the different interests involved. This close touch with real conservation issues has enabled the Standing Committee to truly play its role of "facilitating a friendly settlement on any difficulty to which the execution of the Convention may give rise" – as stated rather diplomatically in Article 18. This has been done bearing in mind the only real interest of the convention, its Standing Committee experts and its secretariat: to conserve wild flora and fauna and their natural habitats and to promote co-operation among the parties on biodiversity issues.

As Secretary to the Bern Convention for nearly twenty years, I take this opportunity to thank all the many people who have helped me in my task: government delegates, experts, NGOs, scientists, other Council of Europe staff. So many have become friends and I have learned so much from them all. I have to admit without shame that I have had a great time during these years, visited magnificent places, met a lot of interesting people, enjoyed a diversity of hospitality in Europe and in Africa and found myself welcomed everywhere. I won't mention the paperwork! I am particularly grateful that everyone understood that, apart from their enthusiasm, secretariats have one great strength in their bag: their independence. The respect of that independence by all has helped to make this convention reliable and successful and heralds a bright future.

Eladio Fernández-Galiano
Head of the Natural Heritage and Biological Diversity Division
Council of Europe
eladio.fernandez-galiano@coe.int
www.coe.int/bernconvention

The irreversible threat to biodiversity

"…Recognising that wild flora and fauna constitute a natural heritage of aesthetic, scientific, cultural, recreational, economic and intrinsic value that needs to be preserved and handed on to future generations…"

Preamble of the Bern Convention

Species certainly disappear naturally over time, but human activities are accelerating this process appreciably, and a quarter of species are in danger of vanishing within the next thirty years. There are currently around 15 to 30 million animal and vegetable species on Earth – some say anything between 5 and 100 million, only 1.5 million of which have been recorded. In Europe, 22 % of higher order plants, 52 % of fish and 42 % of mammals are endangered. From north to south, from east to west, there is also a growing standardisation or "globalisation" of landscapes and destruction of ecosystems.

Awareness of immeasurable riches and the need for urgent action

The need to preserve "biological diversity" is now universally recognised, both in the Convention on Biological Diversity agreed in Rio on 5 June 1992 and in the Action 21 programme also adopted in Rio on 14 June 1992 and reconfirmed in Johannesburg on 4 September 2002. The Convention on Biological Diversity states that determined action must be taken without delay to preserve and conserve genes, species and ecosystems in order to ensure sustainable management and use of biological resources. Over the years, international agreements at world and regional level (Africa, Europe, Antarctica, the Mediterranean, the Association of South East Asian Nations (ASEAN) region, the south-east Pacific and the Caribbean) have been adopted to preserve certain specific species, and wildlife as a whole.

At the European level, the Convention on the Conservation of European Wildlife and Natural Habitats, known as the "Bern Convention", recognises that "wild flora and fauna constitute a natural heritage of aesthetic, scientific, cultural, recreational, economic and intrinsic value that needs to be preserved and handed on to future generations", acknowledges their "essential role" in maintaining a biological balance, and states "that numerous species of wild flora and fauna are being seriously depleted and that some of them are threatened with extinction".

Objectives

Conserving wildlife and natural environments…

The contracting parties to the Bern Convention accept that the conservation of wild flora and fauna should be taken into consideration by governments in their national goals and programmes, and that international co-operation should be established to preserve migratory species in particular. The convention sets out four goals: establishing minimum protection for all wild species of flora and fauna and strengthened protection for those which are at particular risk, with special regard to migratory species; protecting the habitats of wild species of flora and fauna and safeguarding natural habitats in danger of disappearing; promoting co-operation between contracting parties in the field of nature conservation, and more particularly in respect of species and habitats whose conservation requires international co-operation, with particular importance attached to the conservation of migratory species.

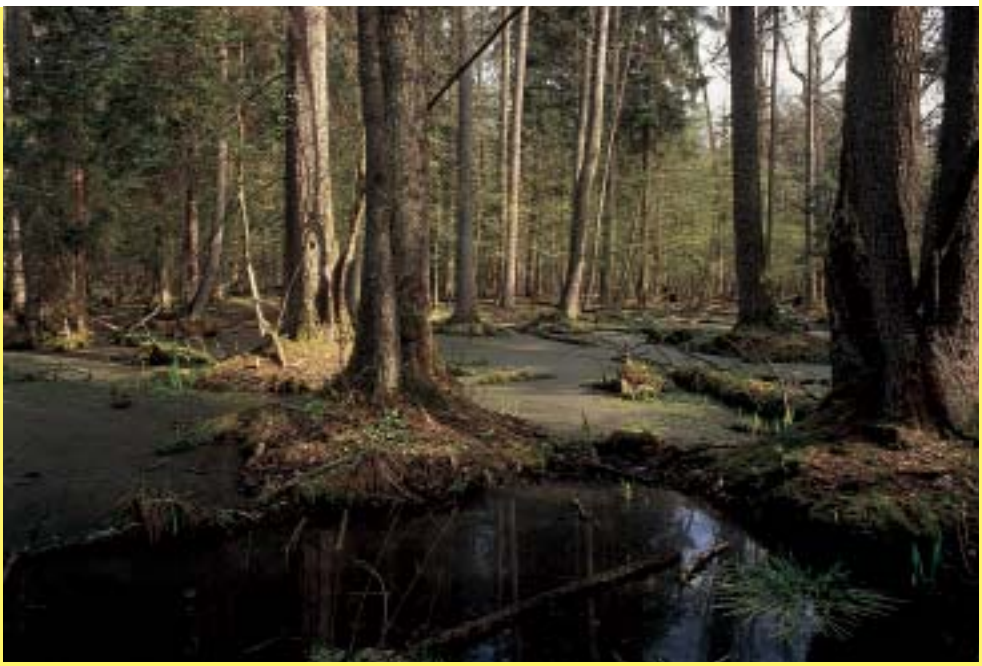
… in Europe

The Bern Convention currently has forty-five contracting parties, including thirty-nine member states of the Council of Europe and five non-member states of the Council of Europe and the European Union. The Committee of Ministers of the Council of Europe may, after consulting the contracting parties, invite any non-member state of the Council of Europe to accede. The Standing Committee of the convention also invites non-member states of the Council of Europe to take part in its meetings as observers. Since the convention is by its very nature intended to apply to the entire European continent, it is highly desirable that all European states should accede to it. Co-operation between Europe and Africa is also vital to ensure protection of shared wild flora and fauna and of migratory species along their migration routes, and in the locations where they stay for longer.

Principles

It is essential to lay down principles since these establish attitudes and help to guide the way in which states behave in making economic and political choices affecting the environment. The principles of prevention, caution and sustainable development underpin all the obligations with which the contracting parties to the Bern Convention undertake to comply. The first is based on the old maxim that "prevention is better than cure", and the second on the notion that where there is a

S. Cordier



Bialowieja forest in Poland

risk of serious or irreversible damage, the absence of absolute scientific certainty must not serve as a pretext for postponing the adoption of effective measures to prevent the degradation of the environment. The convention is also based – even before the term existed – on the principle of sustainable development, as recognised in the fourth principle of the Rio Declaration on environment and development and reaffirmed in the Johannesburg Declaration on sustainable development.

International legal obligations

The legal obligations with which contracting parties undertake to comply concern the protection of areas or "habitats", and the conservation of species. Some are general and must underpin all their actions, while others are specific to habitats, wild flora and fauna, and migratory species. The contracting parties undertake generally to:

- take all requisite steps to implement national policies for conservation of wild flora and fauna and natural habitats, paying particular attention to species that are vulnerable or in danger of extinction, especially endemic species, and to endangered habitats;
- have regard to the conservation of wild flora and fauna in planning and development policies, and in measures to combat pollution;
- encourage education and disseminate general information about the need to conserve species of wild flora and fauna and their habitats;
- co-operate whenever relevant, especially where such co-operation may strengthen the effectiveness of the measures taken; and encourage and co-ordinate research relating to the aims of the convention.

Methods

Institutional

The institutional organs of the Bern Convention are the Standing Committee, the Bureau and the secretariat. The Standing Committee is responsible for monitoring the application of the convention and is made up of delegations from the contracting parties to the convention. The Bureau, comprising the chair of the Standing Committee, the vice-chair and the former chair, takes decisions on management and organisation between meetings. The convention secretariat, which is responsible for monitoring implementation, is headed by the Secretary General of the Council of Europe, the chief aim of the Organisation being to create a closer union between its members in the field of nature conservation. Groups of experts also meet to deal with the topics covered: conservation of plants, protection of invertebrates, protection of amphibians and reptiles, legal aspects of the introduction and reintroduction of wild species, conservation of certain animal species (turtles, Mediterranean monk seal, wolf, European bison, etc.), and protection of habitats.

The convention allows observers from non-governmental organisations (NGOs) which are bodies or institutions technically qualified in the field of protection, conservation or management of wild flora and fauna and their habitats to attend meetings of the Standing Committee, a practice therefore fully in line with the new trend to encourage worldwide "partnership" between states and key sectors of society and peoples, as confirmed by the Rio and Johannesburg declarations. NGOs play a crucial role in monitoring the application of the convention.

Legal

The Standing Committee has the power to address recommendations to the contracting parties on the measures to be taken to implement the convention. These generally result from legal and scientific work aimed at exploring certain fields in greater depth, or from the opening of "files". Given the threats to biodiversity and ecological diversity, the convention seeks to take account of the latest discoveries and developments concerning species and environments, and is thus a living legal tool. One hundred and fifteen recommendations and a number of guidelines have been adopted to date.

Control mechanisms

The Bern Convention has set up a variety of control mechanisms to ensure states' compliance with their commitments. These mechanisms are either expressly provided for in the text or have developed in practice in response to need. Their flexible "paralegal" nature reflects the current status of international environmental law, which is in transition and needs to be consolidated.


S. Cordier

Reports

The convention adopts a reporting system, whereby states which are party to the agreement have to submit regular reports on the way in which they are fulfilling their obligations. Contracting parties submit an introductory report to the Standing Committee describing their legislation on the protection of nature at the time of their accession and subsequently lodge four-yearly reports. They also submit two-yearly reports on derogations from the specific obligations with which they are required to comply. The Standing Committee may draw up recommendations for particular states.

Files

The convention has given rise to the development of a particular control procedure using "files", a practice which provides an excellent tool for international co-operation. The Standing Committee, its chair or the secretariat, receives a letter or a "complaint" from an individual or a non-governmental organisation containing an allegation of non-compliance with the provisions of the convention by a contracting party. In the light of the evidence at its disposal, the secretariat then assesses whether there are grounds to refer the allegation to the contracting party concerned for further information and then, with the approval of the Bureau, considers whether there are

States parties to the Bern Convention

Member states of the Council of Europe
Albania, Andorra, Austria, Azerbaijan, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Liechtenstein, Lithuania, Luxembourg, Malta, Moldova, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, the former Yugoslav Republic of Macedonia, Turkey, Ukraine, United Kingdom

Non-member states of the Council of Europe
Burkina Faso, Monaco, Morocco, Senegal, Tunisia

International organisation
European Union
http://conventions.coe.int/treaty/Fr/v3defaultFRE.asp

grounds to discuss the matter in the Standing Committee, which may decide to open a file and adopt a recommendation.

On-the-spot appraisals

Where it is evident from these discussions that there are difficulties over the measures to be taken to implement the convention with regard to a habitat required to safeguard wild species of flora and fauna, and where it is necessary to gather relevant information, the Standing Committee may, in serious cases, decide that a visit should be made by an expert to gather information on the spot, with the agreement of the authorities concerned (see the following article).

Follow-up to recommendations

The Standing Committee may invite the contracting parties to whom recommendations are addressed to submit reports on how these have been followed up.

Arbitration

Although provided for under the convention, the arbitration procedure has not been used to date. It is of relevance, however, since it could enable differences between contracting parties over interpretation or application of the convention to be settled in cases where it has not been possible to resolve them amicably within the Standing Committee or through negotiation between the contending parties.

The Bern Convention provides a highly dynamic framework for international co-operation entailing legal and scientific activities of great relevance to all its contracting parties and, more widely, for the conservation of wildlife and natural habitats in Europe.

Recommendation Rec (2002) 1 of the Committee of Ministers to member states on the Guiding Principles for Sustainable Spatial Development of the European Continent refers specifically to the Bern Convention in a section on "enhancing and protecting natural resources and the natural heritage". It accepts that natural resources contribute not only to the balance of ecosystems, but also to the attractiveness of regions, to their recreational value and the general quality of life, and that they must therefore be protected and valued.

Maguelonne Déjeant-Pons
Head of the Spatial Planning and Landscape Division
Council of Europe
maguelonne.dejeant-pons@coe.int

On-the-spot appraisals

On-the-spot appraisals are one of the control mechanisms put in place under the Bern Convention to ensure that states comply with the commitments that they have made.

Such a procedure is used essentially to examine disputed complaints lodged by private individuals and non-governmental organisations (NGOs) of alleged breaches of the convention. Certain appraisals may, however, be of a more preventive nature.

The expert appointed by the Secretary General who makes a site visit accompanied by a member of the secretariat is expected to:

– evaluate the situation;
– flesh out certain aspects of the file;
– meet all parties involved;
– draw up recommendations.

He or she thus fulfils the invaluable role of mediator by helping the national authorities, in agreement with the various partners concerned, to find the most appropriate solution that will enable socio-economic interests to be reconciled with those of nature conservation.

Having carried out the visit, the expert submits a report which is put to the meeting of the Standing Committee. Conclusions on measures to be taken are summed up in the form of a specific recommendation from the Standing Committee addressed to the contracting party.

Examples

A number of visits have been organised in relation to turtles strictly protected under the convention which are at risk from the development of tourism and the disruption which this causes.

In Cyprus, two visits in 1997 and 2002 made it possible to study the impact of the creation of a vast tourism complex on the ecology of the Akamas peninsula, and in particular the major egg-laying sites of the green sea turtle (*chelonia mydas*) and the loggerhead sea turtle (*caretta caretta*).

The impact of building a holiday village in the region of Agadir, Morocco, within the Souss Massa National Park, which provides shelter to the last population in the world of bald ibis, was appraised in 2002. Proposals were put forward to prevent further decline in this key species of Moroccan bird life and to suggest ways of managing tourism and types of tourism that would satisfy environmental requirements.

Transport infrastructures are undeniably expanding in Europe. Economic and strategic interests conflict with the interests of nature protection.

The proposal to build a road through the Grünewald Forest – which is the largest typical sandstone plateau beech wood in Luxembourg – is one of the great successes of the convention. Following the appraisal by an expert in 1996, the Luxembourg Government took compensatory measures and chose a far more expensive solution than that originally planned in order to avoid damaging the natural environment.

A preventive visit was made in 1997 to the Hopa region, in Giresun, Turkey, to help the authorities to update measures to protect the exceptionally rich herpetological fauna of that region.

In 2002, an expert visited Bulgaria to study the impact of the proposal to build a motorway through the Kresna Gorge, which provides shelter to numerous habitats and priority species protected under the convention, notably the only specimens of certain tortoises in the Balkans. He suggested a range of ecologically acceptable routes and a desirable way of identifying compensatory and integrative measures and formulating proposals to give the site suitable legal protection.

More recently, in 2003, the committee responded favourably to an invitation from the Polish authorities to organise a visit to Poland to look at the impact on the natural environment of the proposed "Via Baltica" motorway linking Warsaw with Helsinki.

A visit was arranged in 2003 to Portugal to study the proposal to build a dam on the river Odelouca on grounds of overriding public interest and health, and the foreseeable impact on the natural environment, especially the habitat of the Iberian lynx, one of the most endangered species of mammal in the world. The expert proposed an ambitious programme to reduce and offset the effects, together with the launch of a national emergency action plan to support the Iberian lynx.

The afforestation policy adopted in low-lying areas, and its consequences for wildlife, were the subject of a visit to Iceland in 2002 to try to find a fair balance between the potentially conflicting goals of re-establishing forest cover and preventing soil erosion, and conserving protected birds. The visit gave fresh impetus to a process of dialogue and consultation between the parties involved, who all accepted the expert's conclusions. Following this visit, the committee decided not to open a file on the case.

On-the-spot appraisals are thus genuine tools for negotiation which can effectively help to resolve problems.

S. Cordier

Bald ibis in Morocco

Françoise Bauer
Principal Administrative Assistant
Council of Europe
Francoise.bauer@coe.int

Political aspects and development

The famous 1972 United Nations Conference on the Human Environment in Stockholm stimulated the development of various international instruments in the field of environment and nature conservation such as the Convention on the Conservation of Migratory Species of Wild Animals (Bonn Convention).
However, some activities, on the global level, were already ongoing, for instance the development of the Ramsar Convention, which was concluded in 1971 and became one of the most efficient conventions. This was probably because it was based on a concrete species and habitat approach, similar to the Bern Convention. At the same time it developed, via resolutions, a number of guidelines and activities tailored to meet recent developments, including those resulting from the Rio de Janeiro conference, such as the Convention on Biological Diversity (CBD) and the Framework Convention on Climate Change (FCCC).
It is this flexibility to meet the needs of modern social and general political developments, together with a good infrastructure in place (secretariat, Bureau, active parties, reasonable budget), which makes a convention work. In cases where this is all lacking, a convention will slowly "go to sleep", in spite of its probably well-developed aims and goals.

The political environment of the time

The above certainly did not apply to the pioneering Bern Convention. It has shown all the necessary potential to be an efficient international instrument, regionally oriented, and demonstrating the necessary flexibility to remain so.
However, in those days the political separation between western and eastern Europe was strong and difficult to overcome and the Council of Europe, where the Bern Convention was developed and which provided the secretariat functions and other support, was not recognised by the countries on the eastern side of the iron curtain. They were certainly not disposed to ratify the convention in spite of its ambition to be really pan-European.
It meant that the convention started with only a small group of countries which slowly grew to twenty parties. Almost all ratifications after 1989 came from countries from central and eastern Europe, although some western European countries also came on board late, for instance France (1990), Belgium (1990) and Iceland (1993).

The Bern Convention and the European Union

In a political sense the work of the Bern Convention became more complicated once the European Union developed its Birds Directive (1979) under strong pressure from NGOs. Although the directive and the convention have similar aims, there is an important difference between these two texts: non-observance of the first is punishable by a court of justice: the European Court of Justice. Furthermore there is the need for EU members to decide on a common position before meetings of the Standing Committee of the Bern Convention.
This dominant presence of the EU also influenced the successful monitoring system of national implementation of the Bern Convention – the so-called "file system", in a way which caused some tension among EU members and between the EU and non-EU members of the Bern Convention concerning the possible role of the European Commission in cases where a file was opened against an EU member state. It took some time before possible tension could be defused thanks to procedural improvements.

The Bern Convention and central and eastern European countries.

Most central and eastern European countries (including a number of new states) have joined the Council of Europe and many have already ratified the Bern Convention.
Politically it is extremely important that the Russian Federation should join the Bern Convention due to its wealth of expertise in biodiversity, and it should have a special role in the European conservation agenda. It should be recognised that probably over 50% of Europe's remaining high quality natural sites are in the Russian Federation and its former republics.
This is one of the greatest political challenges for the Bern Convention: to bring the remaining countries under its umbrella as the regional biodiversity convention for the whole of Europe.

Its future role

The convention was able to adapt to and assimilate the great changes in the political and geo-political map of Europe. It has carefully followed global developments in conservation and taken them into account in its work and procedures.
In my opinion the Bern Convention is a good example of how to approach conservation at regional level in a practical way that remains close to the people involved, solidly based on scientific data thanks to the work of the groups of experts and open to global developments.

Gerard C. Boere
Chair from 1998 to 2000 and representative of the Netherlands on the Standing Committee of the Bern Convention
Dorrewold 22
NL-7213 TG Gorssel
gcboere@worldonline.nl

Brunet/Sunset

Loiret landscape (France)

In the Czech Republic

/Bios

Czech landscape

After the political, social and economic changes which occurred in former Czechoslovakia in 1989, a new act on the protection of nature and the landscape was prepared by the newly established Ministry of the Environment of the Czech Republic and State Nature Conservancy authorities. The fall of the iron curtain brought to Czechoslovak nature conservationists, among others, the possibility to learn more from experience abroad. In addition to progress in conservation biology, ecology and environmental science, the authors of the law were also substantially inspired by the Bern Convention.

The previous main legal instrument for species protection in former Czechoslovakia, Act No. 40 on State Nature Conservation, was passed in 1956. The decrees of the Ministry of Education and Culture listing protected wildlife species were adopted in 1958 and 1965 respectively. Act No. 114/1992 on the Protection of Nature and the Landscape came into force on 1 June 1992. It is based on a relatively modern integrated approach stressing ecological integrity, that is, both the diversity and the importance of life-supporting processes in various biological systems.

The Act includes ways of protecting special wildlife species (individuals or whole populations) as well as information concerning the protection and management of their habitats. It is also recognised in the legislative instrument that habitat protection and ecologically sound management of ecosystems is the most cost-effective approach to preserve the diversity of species in a given territory. Under the Act, all wild animals and plants are generally protected at all stages of their development, with the exception of species important from the point of view of the economy and those associated with disease ("pests"). Special attention is also paid to geographically non-native species since invasive alien species, which threaten ecosystems, habitats and other species are considered to be one of the most significant risks for biological diversity, including in central Europe.

Learning for the future

Although the Czech Republic became a party to the Bern Convention as late as 1998, Czech experts and officials have been involved in activities in the framework of the convention, particularly in groups of experts since 1990. It was at a Bern Convention meeting where some of them, including the author of this article, entered for the first time the international conservation forum. One of the results of this involvement is the addition to the convention's appendices of species and subspecies of wild flora and fauna occurring in the Czech Republic or, more generally, in central and eastern Europe.

The European otter, a flagship species

In the Czech Republic there are only a few lakes. On the other hand, approximately 23 000 fishponds of various sizes have been built in the country. They are the preferred habitat of the European otter (*Lutra lutra*). In 1993, the Třeboň Otter Foundation was established to undertake research and conservation projects relating to the otter in the Třeboňsko Protected Landscape Area and Biosphere Reserve (south Bohemia), inhabited by the most numerous population of the carnivore in central Europe. In 1999, the foundation was replaced by the Czech Otter Foundation Fund, the latter having a nationwide scope. The fund carries out and supports otter conservation projects in the Czech Republic. The research includes studies on diet behaviour, habitat selection, dispersal using telemetry, contamination of otters by PCBs, etc. The fund also provides environmental education and communication activities through television programmes, lectures, exhibitions, brochures and competitions for schoolchildren, including the disabled. In addition, it aims to integrate conservation and research on otters in the Czech Republic with projects in the rest of Europe. After finalising the long-term project in 2004, the organisation will continue on a slightly modified basis. All the activities of both bodies have been substantially supported by the Ministry of the Environment of Luxembourg in the framework of the Bern Convention.

Jan Plesník
Representative of the Czech Republic on the Standing Committee of the Bern Convention
Agency for Nature Conservation and Landscape Protection of the Czech Republic
Kališnická 4-6
CZ-130 23 Praha 3
jan_plesnik@nature.cz

Belgium, the Walloon Region

On 20 April 1989, Belgium enacted legislation approving the Convention on the Conservation of European Wildlife and Natural Habitats. The Walloon Region, which has responsibility in this matter, has taken a variety of measures to implement the convention.

All the species included in the appendices to the convention are referred to in the Nature Conservation Act of 12 July 1973, which means that they are fully protected both against harm to individuals (being kept, disturbed, sold, bought, killed, etc.) and against the intentional deterioration of habitats, with the exception of birds. Moreover, unless expressly excepted, this Act prohibits the introduction into the natural environment and game parks of non-indigenous species and of indigenous species of non-indigenous stock, and the reintroduction into the natural environment of indigenous animal and vegetable species.

The Walloon Region is playing a full part in establishing an ecological network, at a lower level than the pan-European "mega" ecological network, by setting up a local ecological network of local authority nature development plans through the Emerald and Natura 2000 networks, thereby implementing Resolution 5 of the convention. In the Walloon Region the Natura 2000 network has the peculiarity of being based largely on an oro-hydrographic network. This network of 239 sites, which covers in all nearly 13 % of the surface area, is principally made up of woodland (around 75 %, two thirds of which is broad-leaved).

However, because of the population density in the Walloon Region (an average of 200 inhabitants per square kilometre), it has become necessary to take a large number of measures aimed at improving the network for certain types of habitat, particularly by preserving natural spaces outside protected areas. Operations such as the creation of ponds, delayed cutting of roadside verges, and grants for planting and maintaining hedges, are key elements and are of benefit to many species (including hymenoptera).

Once an inventory had been made of peat bogs, heathland and dry grassland, measures were taken to protect them and manage them sustainably. Upland peat bogs are rare environments of exceptional biological importance. It is believed that there remain only some 2 000 ha of degraded peat bog and around 200 ha of sub-intact peat bog in the Walloon Region. Most of the larger peat sites are now protected, and appropriate management measures have been put in place.

Protection of habitats and species

In the Walloon Region, heathland and dry grassland are largely accounted for by two military camps. An agreement has been signed between National Defence and the Nature and Forests Department to take into account and manage the natural heritage in military areas. This agreement is of particular benefit to these two environments, and especially to the sand lizard (*Lacerta agilis*), the distribution of which is very restricted in Belgium.

The broad-fingered crayfish (*Astacus astacus*) is the only indigenous crayfish found in Belgium, and its populations are under serious threat. A complete list has been drawn up of sites where it is found throughout the Walloon Region. The species is being bred with a view to its reintroduction into rivers of adequate quality. Fishing legislation forbids the taking of broad-fingered crayfish.

The pearl mussel (*Margaritifera margaritifera*) is the subject of a Life project aimed at the long-term conservation of the habitats which provide shelter for its populations. While it used to be widespread in Europe, more than 90 % of the individual members of the species disappeared over the last century. In Belgium, there is only one major population (over 1 000 individuals) left in the Walloon Region, with further very small, scattered populations, largely in a few good-quality rivers in the Ardennes. The results expected from this project are a significant improvement in water quality, awareness of pearl mussels in strategic planning decisions, and a rise in the populations of host fish.

The operation to encourage occupation of steeples and roofs of public buildings by bats (known as Operation "Roofs and Steeples") and the statutory listing of many subterranean cavities, have made it possible to maintain, restore and create a large network of summer and winter sites for chiroptera which is of particular benefit to the greater horseshoe bat (*Rhinolophus ferrumequinum*) and the pond bat (*Myotis dasycneme*).

In conclusion, other examples could be given of practical implementation of recommendations. What is attempted here is to demonstrate their relevance and that they have given rise to a whole range of policies and legislation. As chair of the working group developing a new strategy on invasive species, I do not for a moment doubt the potential significance of these documents for many parties, especially politicians.

M. Dufrêne

The Hautes Fagnes in Belgium

Patrick De Wolf
Representative of Belgium on the Standing Committee of the Bern Convention
Ministry of the Walloon Region
Nature and Forests Division
15 avenue Prince de Liège
B-5100 Jambes (Namur)
p.dewolf@mrw.wallonie.be

In Ukraine

Ukraine regained its independence in 1991. A typical representative of post-communist countries, it inherited from the previous regime a number of problems related to the environment, including exhaustible exploitation of natural resources, particularly mineral deposits and bioresources (forests and wildlife), water, air and soil pollution, land erosion and radionuclide contamination. Steppe landscapes had been reduced due to agricultural activity. It is not an easy task to implement sustainable development policy even under the favourable conditions of a prosperous economy, thus it is much more difficult to pursue this goal in Ukraine, since this country is now undergoing dramatic changes, trying to overcome a profound crisis and to solve numerous individual problems. However, Ukrainians are aware of the importance of natural resource preservation and biological conservation as a key precondition of transition to sustainable development in concordance with internationally accepted criteria. This is why the basic Ukrainian environmental policy documents adopted at different levels take into consideration the necessity of biodiversity conservation, the maintenance of productive capacity of forest ecosystems, the enhancing of the contribution of natural ecosystems to global cycles and climate stability, decreasing acidification and air pollution, and the elimination of the consequences of nuclear contamination.

General context

In this respect the general context can be mentioned: as a result of drastic political changes in the world, and especially in the central and eastern European region during the last decade, new challenges have arisen, as have opportunities for the implementation of sustainable development and new ecological standards for nature conservation and management. At the same time, a process of social development and/or transition to a market economy entails some negative economic and social consequences, in particular financial crises and unemployment. This means that any proposal connected with environmental matters should be considered in a systematic way, taking into account social, ecological and economic conditions.

According to the commitments enshrined in the Bern Convention, Ukraine has been taking necessary steps to incorporate the requirements of this convention and the recommendations of the convention's Standing Committee into national legislation when appropriate. The convention came into force for Ukraine in 1999 and the Ministry for Environmental Protection of Ukraine is the governmental body responsible for implementation of the convention's provisions.

According to the requirements of the Bern Convention, the Law of Ukraine on Hunting and the Law of Ukraine on the Animal Kingdom were amended in order to bring them in line with the convention. Much attention was paid to reviewing the national list of plant and animal species included in the Appendices I and II of the convention and their ranges over the territory of Ukraine. Thanks to the generosity of the Government of The Netherlands, a series of publications was prepared and printed in order to publicise the convention and to raise public awareness on species and habitats listed in the convention's appendices. A number of publications were devoted to species of higher order plants, invertebrates, amphibians, reptiles, birds and mammals listed in the appendices.

The recommendations and resolutions of the convention's Standing Committee play an important role in the planning of activities relevant to endangered species and habitats in Ukraine.

Resolution No. 3 (1996) of the Standing Committee concerning the setting-up of a pan-European ecological network was one of the background documents to promote the idea of developing the ecological network in Ukraine. The Law of Ukraine on the State Programme of Formation of the National Ecological Network for the Period 2001-2015 was drafted and later adopted by the Parliament of Ukraine (Verkhovna Rada, 2000) to promote development of the ecological network on the territory of Ukraine as a part of the European Ecological Network (EECONET). Resolutions Nos. 4, 5 and 6 of the Standing Committee concerning the establishment of the Emerald Network serve as background documents which led to relevant activities in Ukraine. The crucial development issues of the Ukrainian Emerald Network as an integral part of the European network and within the structure of the national eco-network were discussed at the national seminar involving representatives of the Council of Europe. A recommendation on the conservation of underground habitats was the basis for the implementation of the relevant project in Ukraine on the assessment of populations of certain species of animals adapted to existence in caves. The country took an active part in the application of recommendations on the conservation of brown bears (*Ursus arctos*), on the conservation of the wolf (*Canis lupus*) and on the conservation of the European lynx (*Lynx lynx*), on the basis of which the country's specific action plans were developed.

The Ukrainian Government, scientific circles and environmental NGOs consider the integration of Ukraine into European environmental legislation as an extremely important step towards Europe. The preservation of plant and animal species and their habitats in the territory of Ukraine contributes not only to the implementation of the Bern Convention, but also to the conservation of the European common heritage.

The controversial process of globalisation and an instrumental approach to nature result in unsustainable use of nature resources, loss of biodiversity, etc. Despite substantial efforts by the international community over the last decades through a large number of both international and regional initiatives (such as adoption of conventions, programmes and projects), the degradation of bio- and landscape diversity is continuing. It is high time that their efficiency and effectiveness in terms of nature conservation and human welfare is assessed. From the time twenty-five years ago when the Bern Convention was accepted by the Council of Europe and from the shorter experience of its implementation in Ukraine, we may say that this convention is one of the most efficient and workable international legally binding instruments, encouraging both politicians and nature conservationists to preserve living beings on the terrain of Europe for present and future generations.

Laczi/Sunset

Brown bear (Ursus arctos)

Yaroslav Movchan, Volodymyr Domashlinets and Tetiana Hardashouk
Representative of Ukraine on the Standing Committee of the Bern Convention
Ministry of the Environment and Natural Resources
PO box 190
Urytskoho, 35
UKR-Kyiv 03035
movchan@menr.gov.ua; iar@gala.net

In Senegal

Thanks to its geographical location, Senegal is home to a great diversity of habitats, ranging from Sahelian ecosystems to Guinean ecosystems, of both mainland, marine and lagoon varieties. However, the 1970s were marked by ecological disasters which eventually triggered awareness at national and international level, and Senegal took measures to curb the deterioration of its natural resources, which included signing and ratifying several international conventions on the conservation of wildlife species and their habitats.

These measures supplemented Senegal's existing arrangements for conserving its biological resources, including the setting up of a vast network of protected areas.

The Bern Convention entered into force in respect of Senegal in 1987.

Ferrero-Labat/Bios-Phone

Migrating storks

Network of protected areas

The network comprises several ensembles:

– the first of these is a 913 000 hectare park of savannah land: the Niokolo Koba National Park, established to preserve the remaining representatives of the country's large land animals;
– the second ensemble consists of coastal wetlands (coastal areas, estuaries and deltas) and, through its multitude of habitats, is vital to the migration of palearctic birds. It covers a surface area of 20 000 ha of islands, swamps, lagoons, mangroves and forests and 50 000 ha of marine habitats;
– the third ensemble consists of the Sahelian ecosystems represented by the Ferlo Nord wildlife reserve (400 000 ha), whose management was entrusted to the National Parks Directorate in 1996. It is home to residual populations of gazelle (*Gazella rufifrons*), African spurred tortoise (*Geochelone sulcata*), over 180 bird species including the ostrich (*Struthio camelus*), Abyssinian ground-hornbill (*Bicorvus abyssinicus*) and Arabian bustard (*Otis arabs*).

Initial attempts are currently under way to reintroduce wildlife species into the reserve, with oryx and dama mhorr gazelles.

In addition to these three ensembles, there is another ensemble comprising:

– 213 listed forests;
– 20 silvopastoral reserves;
– 8 cynegetic areas.

Several areas have been listed under international conventions. The network includes two World Heritage sites, two biosphere reserves and three Ramsar sites. Furthermore, over 220 animal species present in the parks and reserves are protected under the Bern and Bonn conventions.

Emerald Network

The Bern Convention mechanism is managed in Senegal by the Ministry of the Environment and Nature Protection, through the offices of the National Parks Directorate.

It was in June 1989 that the Standing Committee of the Bern Convention held an extraordinary meeting and adopted a number of recommendations on habitat protection, including Recommendation No. 16 (1989). This recommendation urged the contracting parties to establish a network of conservation areas under the convention, known as "areas of special conservation interest" (ASCIs). At its meeting in October 1996 the Standing Committee also decided, in Resolution No. 3 (1996), to set up a network including the ASCIs, known as the "Emerald Network".

Having already set up a national team in October 2001, Senegal had its request for network membership granted by the Standing Committee in December 2002.

The setting up of the network was a major step forward in Senegal's collaboration with the Bern Convention.

After Senegal's membership request was granted, a training seminar was organised in Dakar with technical and financial support from the convention secretariat. It brought together the representatives of the main state agencies and the NGOs involved in implementing the programme.

At the end of the seminar a site (Lake Tanma) was selected for establishment as an ASCI. The technical file is now being finalised so that the Senegalese government can officially propose the site as an area of special conservation interest.

Implementing the Emerald Network programme will certainly enable Senegal to consolidate its network of protected areas and better conserve its biological resources.

Samuel Dieme
Water and forestry engineer
Deputy Director of the National Parks of Senegal
BP 5135
Dakar – Senegal
dpn@sentoo.sn

Is habitat protection still a relevant conservation tool?

Any immediate answer to the somewhat provocative title question must, of course, be yes. Habitats are not only still useful biological and administrative conservation tools, but also remain an essential ingredient of modern conservation biology. However, conservation biology, just like any other scientific discipline, is prone to changes in fashion. In the early days of the Bern Convention, emphasis was placed upon protecting particular species, mainly flowers or birds or furry animals. Formal lists were drawn up of species deemed to be particularly worthy of active protection – "red lists" – which served to draw the attention of the public, including politicians, to the importance of "nature conservation", and the fact that species can become extinct through human influences. Then some scientists pointed out that species are becoming extinct because their habitat is being destroyed, so it is ultimately the habitat that deserves most of the attention, money, and effort. This change of emphasis from species to habitat started out as scientific, but was quickly taken up within the political arena. Now, the dilemma of "species or habitat" protection has taken on the proportions of the earlier "single large or several small" (SLOSS) discussions of nature reserve design that were stimulated by island biogeography theory in the 1970s, particularly in the USA (for instance Shafer, 1990). Just as in that debate, a paradigm shift in the scientific world has resulted in a change of fashion outside.

One of the main problems with habitat conservation *per se* is the temptation to adopt a "blanket protection" approach in which a particular habitat, or a group of habitats within a protected area, is managed at large, "human" scales inappropriate for the majority of the species present and for the functioning of the system. One example of this is provided by the Berchtesgaden National Park and its buffer zone in the Bavarian Alps during the 1980s. At that time the "state-of-the-art" management strategy relied heavily upon protection of alpine habitats for golden eagles, chamois, and a few other species in the belief that this would be sufficient to guarantee protection of all the other animal and plant species underneath the "umbrella" – including invertebrate animals listed within the appendices of the Bern Convention. Predictably, this turned out not to be the case (Haslett, 1990). Now conservation management of the area is much more dynamic and takes account of the different needs of a wide range of organisms that use their habitats over an equally wide range of spatial scales.

Spatial heterogeneity

It is this idea of spatial heterogeneity over a wide range of scales that provides the very essence of the habitat concept in its modern form. Different organisms perceive and exploit their environment at different scales and it is essential that this be taken into account in conservation management. Thus, when we think of a mosaic of different habitat patches at the scale of looking out of an aeroplane window – the eagle's eye view of a woodland, a meadow, a lake – this is very different to the habitat mosaic relevant to, say, a beetle that exists within a few square metres, but which experiences equally heterogeneous patches of terrain at that scale (for instance, Haslett and Traugott, 2000). Within any such habitat mosaics, a variety of parameters become important to conservation, including the shape, size, content and edge complexity of the individual patches. All of these are relevant to how the different plants and animals exist and interact within the mosaics (for instance, Haslett, 1994; Wiens, 1995).

This means that a habitat is really a very complicated entity, and is certainly not simply a vegetational unit such as a "woodland" or a "meadow" *sensu* Wilson (1992). To conserve a habitat at the latter, simplistic level is not wrong (one has only to think of rain forest destruction in the tropics, or wetland drainage in Europe), but also requires conserving species, or groups of species, at different spatial scales, independently from any conservation of "flagship" species that epitomise rarity on a red list.

Recent technical advances in geographical information systems and remote sensing techniques make the practicalities of understanding and managing habitat mosaic dynamics much easier. The networks of protected areas and areas important for nature conservation that are presently being constructed across Europe – Natura 2000, the Emerald Network, important plant areas (IPAs) – will all benefit greatly if each of the component areas are treated as dynamic habitat mosaics where plants and animals

interact over a wide range of spatial scales.

Thus habitat conservation is still a very useful conservation tool, but only if we are broad-minded enough to take account of the "organism point of view", which is seldom equivalent to our own perception. To be able to appreciate and allow for that difference, we need to know about the variety of different species present and their functional roles within the relevant mosaics of habitat patches, and then to manage accordingly. Habitat and species conservation go hand in hand!

John R. Haslett
Department of Organismal Biology
University of Salzburg
Hellbrunner Strasse 34
A-5020 Salzburg
john.haslett@sbg.ac.at

The Danube Delta Biosphere Reserve

M. Gunther / Bios

The pelican is the delta's symbol

Over many millennia the River Danube has built one of the biggest and the most beautiful wetlands in Europe, on its delta with the Black Sea. The delta covers a total area of 4 178 square kilometres, shared by Romania (82%) and Ukraine (18%). Closely associated with the Danube delta are many large lakes (limans or former marine bays), as well as shallow coastal marine waters that surround the delta. The lower river Prut, that enters the Danube, developed a large floodplain, shared between Romania and the Republic of Moldova, characterised by winding river meanders, natural lakes and channels, covering about 144 square kilometres. These together form a huge wetland complex covering more than 6 700 square kilometres.

In Romania, the most important wetland components comprising the Danube delta itself, the Razim-Sinoie lagoon complexes, and the coastal zone of the Black Sea, were designated as a biosphere reserve in 1990, included in the MAB-Unesco network of biosphere reserves. The Danube delta was also recognised as a Ramsar site, a Unesco World Heritage site and was awarded the European Diploma for Protected Areas in 2000.

Diversity of animals and plants

The natural habitats formed here offer good living conditions for an important number, more than 5 200 species, of plants and animals. Among these, reed beds form one of the largest single expanses in the world and the forests growing in the Letea and Caraorman sand dunes represent the northern limit for two rare species of oak, more frequently met in the south of the Italic and Baltic peninsulas.

Together with the great number of aquatic and terrestrial plants, there are also many important colonies of pelicans (the symbol of the reserve) and pygmy cormorants as well as a variety of other water birds which reside in or visit the delta for breeding or wintering (315 species in total). Without doubt, the impressive range of habitats and species which occupy a relatively small area (one third of the species from Romania) makes the delta a vital centre for biodiversity in Europe and a natural genetic bank with incalculable value for natural heritage.

Ancient human dwelling

Many of the plants and animals from the delta are also important natural resources for economic use as food, building materials and medicine; they attracted people to the area since ancient times. The human dwellings were chiefly based on the use of these natural resources, thus developing traditional economic activities and characteristic cultural and social habits. Later, there was a tendency to overexploit some of these natural resources. This tendency, which is still seen at present, put increasing pressure on the resources, especially fish and grassland, and was compounded by the development of economic activities which were not in harmony with the environment. In fact, during the final decades of the last century the impact of human activity, both from outside and inside the area, affected the natural habitats and landscape of the Danube delta. Several major works for cutting new canals for navigation, without any scientific reason, or for land reclamation for agriculture and fish farming changed the natural hydrological characteristics, transforming many ecosystems. In addition, the abandoned sand exploitation plant and abandoned ships on the Danube delta territory affected the natural landscape, as did some small illegal houses built along several canals.

The main objectives of the Danube Delta Biosphere Reserve Authority (DDBRA), as the management body working under the co-ordination of the Ministry of Environment and Water Management, are to improve ecological management, including the rehabilitation of the abandoned polders and the restoration of affected forests and landscape.

Policies for sustainable development

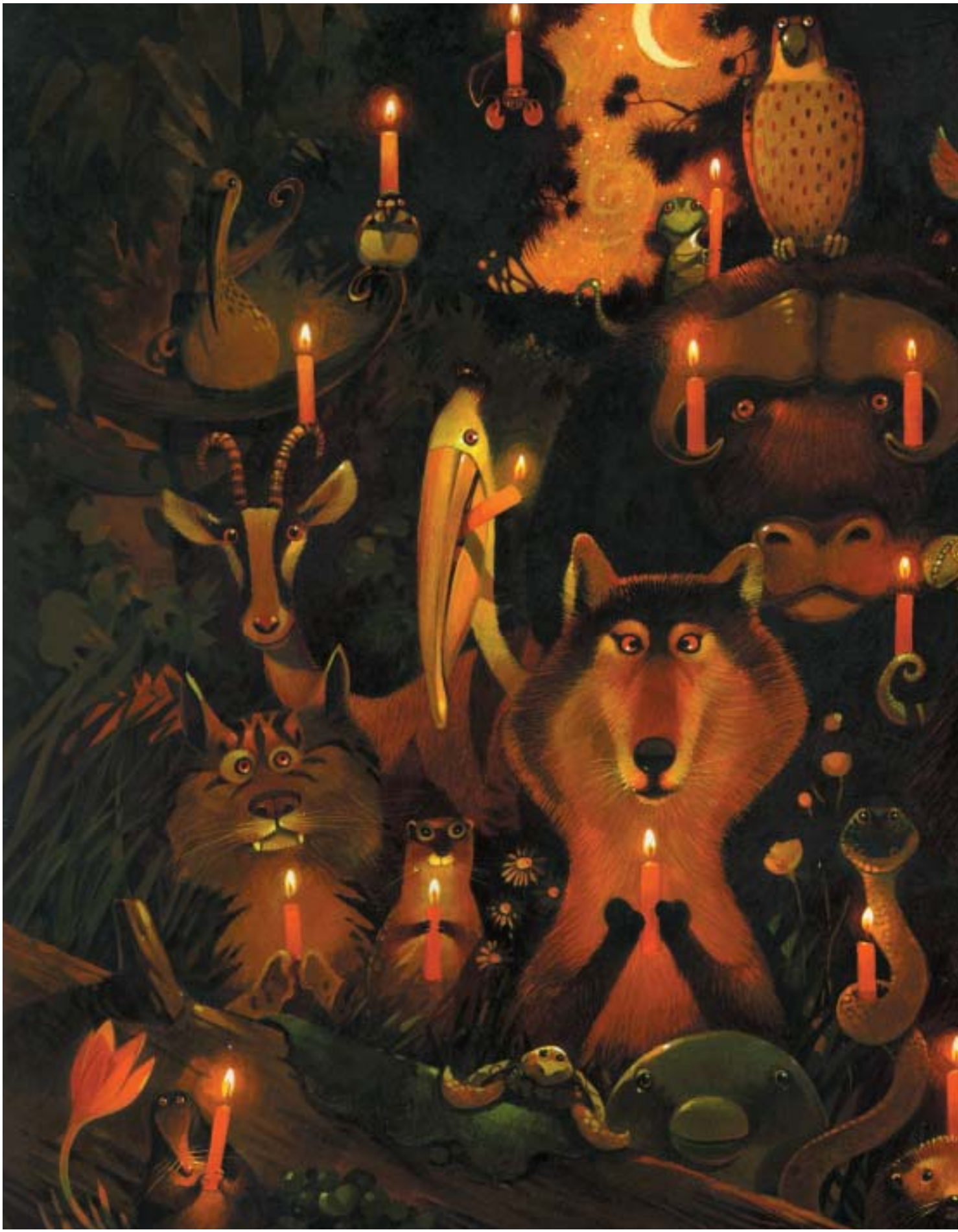
To avoid future conflicts, the DDBRA is determined to formulate policies for sustainable development. Fortunately, the relatively low population (about 15 000 inhabitants), and their concentration in small settlements makes such a policy viable.

The management plan elaborated for the 2002-06 period for this complex and sensitive area, is based on the results of scientific studies and includes objectives focused on several major goals: improvement of the hydrological conditions in the lacustrine complexes to restore the populations of some affected fish species (wild carp, zander, etc.); the use of natural resources in a sustainable way; improvement of communication and the involvement of local people; development of research and monitoring of ecosystems; the establishment of a strategy for sustainable spatial development; and the rehabilitation of the landscape.

Several projects have already been started in the Danube delta with a view to restoring the affected natural landscape (including forestation works along the canals, the removal of the abandoned ships, buildings and illegal houses), to setting up a spatial plan based on the cadastral survey, and to defining planning regulations for new buildings in the rural settlements of the Danube delta.

The recent finalised trilateral management plan for the protected wetlands shared by Romania, Ukraine and the Republic of Moldova in the Danube delta and the lower Prut river flood plain, will promote transborder co-operation in the region including the protection and sustainable use of the landscape to promote ecological education and tourism.

Adriana Baz
Representative of Romania on the Standing Committee of the Bern Convention
Ministry of Agriculture, Forests, Water and Environment
Libertatii blv. no. 12, sector 5
RO-70542 Bucharest
baz@mappm.ro



The 25th Anniversary of the Bern Convention

Illustration: F. Pillot

La Convention de Berne a 25 ans


S. Cordier

The Emerald Network

If there is one field in which the adoption of the Bern Convention has paved the way for a new era, it is undoubtedly the conservation of natural habitats, whether those which have their own intrinsic value or those which are essential for supporting wild flora and fauna species (especially areas of importance for migratory species).
Prior to the adoption of the convention, nature conservation activities were aimed at eradicating, limiting or controlling human activities (hunting, fishing, collecting, gathering, trade, etc.), which in the past had been the main direct cause for the reduction, or at times complete disappearance, of certain species.
However, the many scientific studies (published in the *Nature and Environment* series) undertaken by the Council of Europe in the course of the first European Nature Conservation Year, highlighted new factors which had been contributing to the diminishing numbers of certain wild species since the 1950s. The older causes contributing to the disappearance of species sometimes still persisted, but suddenly had been joined or replaced by the direct destruction or modification of the habitats which are home to these species throughout their life cycle.

Action taken in response

This gave rise to the specific provisions in the Bern Convention relating to the preservation of habitats. Contracting parties were required to undertake to adopt the necessary measures at national level.
However, it was not until some ten years later that the Standing Committee of the Bern Convention adopted a resolution and three recommendations to promote ways of conserving habitats, recommending that contracting parties designate areas of special conservation interest (ASCIs). They were to draw up special measures for the priority preservation of natural habitats and habitats of species.
The political events of 1989 and subsequent years in central and eastern Europe had major repercussions on the functioning of the Council of Europe, while at the same time the European Community, a contracting party, was drafting a directive for the application of the convention in the Community. In 1992 the EC adopted the Directive on the conservation of natural habitats and of wild fauna and flora (Habitats Directive), which provided for the setting up of "Natura 2000", a network of special areas of conservation (SACs), thereby supplementing the Directive on the conservation of wild birds (Birds Directive), drawn up at the same time as the Bern Convention.
In 1996, the Standing Committee adopted a resolution to bring the ASCIs together under a new "Emerald Network" (the name being a reference to the colour of this precious stone). The network was to be set up under the guidance of a group of experts from the contracting parties responsible for carrying out the necessary activities. One of its first tasks was to draw up for adoption by the Standing Committee a list of threatened natural habitats and species requiring special conservation measures covering the whole of Europe.
Since 1999, this group of experts has been meeting annually and has been particularly monitoring what has been going on in the countries of central and eastern Europe which accepted the Council of Europe's proposal to initiate pilot projects in their respective countries. In late 2003, twenty-three countries were carrying out such projects, including Senegal, the first African country to do so, with the intention of involving neighbouring countries. It would appear, from the information available, that Tunisia wishes to follow suit. In all, thirty-eight countries are involved in the Emerald Network, twenty-five of which – since the recent enlargement of the European Union – contribute via the Natura 2000 network.
The pilot projects clearly show that a dynamic process is under way. We must do all we can to ensure that the timetable adopted by the Standing Committee in 2002 will be complied with. It lays down that by 2006 all potential Emerald sites in all countries will have been identified and that the Emerald Network will be completely operational by 2010, which, it will be remembered, is the date that the majority of the countries in the world have fixed for taking stock of progress made in reaching the biodiversity target. Europe must therefore set an example in addressing this worldwide challenge.

Foundations for a network

This date ties in with the timetable for completion of the Natura 2000 network, and with that adopted by the 5th pan-European ministerial conference, "An Environment for Europe", held in Kyiv in May 2003. This is important in view of the fact that the Natura 2000 and Emerald sites will – given the political significance, geographical extent and biological diversity of the networks they form – constitute the foundations on which the core zones of the pan-European ecological network provided for by the Pan-European Biological and Landscape Diversity Strategy will be built.
We must ensure that the Emerald Network develops in the spirit of the "Durban Agreement", that is, in renewed dialogue with the local populations and the interest groups concerned, putting into practice the three focal points of sustainable development.

Henri Jaffeux
Chair of the Committee of Experts for the Development of the Pan-European Ecological Network
Ministry of Ecology and Sustainable Development
Directorate of Nature and Landscapes
20 avenue de Ségur – F-75007 Paris
henri.jaffeux@environnement.gouv.fr

Emerald and Natu

It is astonishing that the Bern Convention is able to accommodate new tendencies in nature conservation. Even twenty-five years ago the basic concept was not limited to certain species, but to their habitats and connections. When the ecosystem approach was finding support in scientific circles the convention was an appropriate existing tool, ready to use at once. So the idea of implementing the Pan-European Ecological Network across the whole greater European area became realistic. Some small formal adaptations needed to be carried out to make legal provisions operational. The Standing Committee of the convention adopted adequate provisions and the Emerald Network was born.
At the beginning there was some hesitation about the Emerald Network and even confusion regarding different network approaches in Europe. But soon it became clear that it was a legally backed instrument that could and should be used. Its main advantage is that it can be applied all over the Europe and is complementary to other similar initiatives. Regarding the political situation three approaches can be found in Europe:
- European Union member states contribute to the Emerald Network through the Natura 2000 network in order to avoid fragmentation or competition of network ideas;
- for accession countries the Emerald Network was a good opportunity to conduct preparation work for Natura 2000. All specific tables (for example,

The European Strategy on Invasive Alien Species

The number of exotic species invading Europe is growing very rapidly as a consequence of the globalisation of the economy, causing major impacts on regional biological diversity. Some of the most endangered species in Europe are directly threatened by species intentionally or accidentally introduced by man, like the European mink – one of the only two endemic carnivores of the region – threatened by the introduced American mink, or the rare white-headed duck endangered by hybridisation with the North American ruddy duck. Introduced species also threaten European ecosystems, as in the case of the ongoing expansion of the American grey squirrel from northern Italy that is causing the progressive disappearance of the native red squirrel and is considered a threat to forest ecosystems on a continental scale. The European forests have already been deeply affected by the introduced Dutch elm disease that devastated elm tree populations in much of central Europe and Great Britain.

Apply good practices

It is now clear that the impacts of many past invasions could have been mitigated if states had uniformly applied appropriate best practices and taken rapid action to eradicate introduced species following detection. And the arrival of most unwanted alien species now threatening Europe might have been prevented by greater awareness and a stronger commitment. One of the most clear examples of this is the case of the *Caulerpa taxifolia* – the killer algae introduced in the early 1980s and that for several years after introduction remained confined to a few square metres. It took over ten years before European states realised that it was urgent to control it, and when they did, it was too late, as the alga had then expanded to a large portion of the Mediterranean.

What Europe needs is a much more active policy aimed at preventing new invasions as a priority, at rapidly eradicating newly established alien species when prevention fails and at mitigating the impacts when eradication is not feasible. But to achieve this, states need to know more about the patterns of arrival and expansion of alien species, to increase their ability to monitor them, to improve their response mechanisms and, in most cases, to revise their legal frameworks.

To provide the basis for a co-ordinated and integrated approach to biological invasions, the Bern Convention has produced a European Strategy on Invasive Alien Species – adopted by the Standing Committee of the convention last December – that is the last step of a long-standing effort carried out in the last twenty years by the convention on the issue of biological invasions, through the adoption of recommendations, the production of technical reports, the organisation of workshops and the establishment of a group of experts. The strategy is the result of over three years of work, carried out with the scientific and technical support of the World Conservation Union (IUCN) Invasive Species Specialist Group and with the co-operation of many experts and organisations. It has then been officially welcomed by the Convention on Biological Diversity and the Council of the European Union.

The European countries are now called on to prepare national strategies based on the European document and to enhance stricter co-operation with the aim of preventing new invasions and mitigating the impacts of alien species already established.

Piero Genovesi
National Wildlife Institute
Via Ca' Fornacetta 9
I-40064 Ozzano Emilia (BO)
infspapk@iperbole.bologna.it

ra 2000 networks

the national system of designated areas, biogeographical regions, etc.) needed for the Emerald Network can be used directly in Natura 2000 standard data form;

– the third group of countries are non-EU countries such as Switzerland, Norway, Turkey and the Balkan countries. Through the Emerald Network they contribute to the common ecological network regardless of the current political situation.

Ecological relations are commonly not understood; we have to present them in a way that is understandable to planners, decision makers and the general public. Through ecological networks drawn on a map, connections in nature suddenly become visible!

But we need more! We need networking between nature conservation and other sectors, with civil society, within the general public, financial institutions, scientists… We need networking in our heads! And we can learn this through admiring and respecting networks in nature.

Peter Skoberne
Representative of Slovenia on the Standing Committee of the Bern Convention
Ministry of the Environment, Spatial Planning and Energy
Dunajska 47
SI-1000 Ljubljana
peter.skoberne@gov.si

James / Sunset

The grey squirrel (Sciurus carolinensis) *has started to invade the European continent*

S. Cordier

*Lizard orchid (*Himantoglossum hircinum*) and Pyramidal orchid (*Anacamptis pyramidalis*)*

The European Plant Conservation Strategy

Sometimes something happens which feels so momentous that you know, with complete certainty, that history is being made. Such a moment was 4.25 p.m. on 19 April 2002, when the Conference of the Parties (COP) to the Convention on Biological Diversity (CBD) adopted the Global Strategy for Plant Conservation.

On the occasion of the twenty-fifth anniversary of the Bern Convention it is fitting to pay tribute to the role played by the Council of Europe and the Bern Convention to its achievement.

In the year 2000, at their fifth meeting, the CBD had decided to "consider the adoption of a global strategy for plant conservation" at their next meeting (COP6). The Council of Europe, working with Planta Europa – the network of organisations working for the conservation of plants and fungi in Europe – were, at this time, planning to try to tackle the ever-growing threats to wild plants in Europe by rationalising the huge job to be done through developing a European Plant Conservation Strategy.

A cohesive regional approach

It was realised that if a European strategy were developed as a contribution to an emerging global strategy, it would both underpin and support the global effort for plants. At the same time it would spearhead a cohesive regional approach within a global framework, and in so doing strengthen the status of both strategies. The European strategy would also be likely to increase support for the global strategy at COP6.

At an informal meeting held with a number of international institutions CBD Executive Secretary, Hamdallah Zedan, expressed his aspiration for the global strategy: it should contain clear targets to allow progress to be measured. This was also the plan for the European strategy: clear targets were necessary to determine plant conservation achievements.

Then came the third Planta Europa conference (organised by Planta Europa, the Council of Europe and the Agency for Nature Conservation and Landscape Protection of the Czech Republic) on the conservation of wild plants, in the Czech Republic (23-28 June 2001). Targets were developed at the conference through a highly participative process. A series of workshops involving 157 delegates from 38 countries debated and fine-tuned them after two days (and part of the nights) of intense hard work. Architect of the strategic planning process, Christoph Imboden, declared that it was one of the largest participatory exercises ever undertaken.

Targets

These targets became the basis of the Planta Europa/Council of Europe European Plant Conservation Strategy. They cover issues such as important plant areas, protected area management, information exchange, capacity building and development of the Planta Europa network.

The European Plant Conservation Strategy was submitted formally to the scientific wing of the CBD, in November 2001, as a contribution to the emerging global strategy. After a great deal of lobbying by a number of indefatigable people, this scientific body called for a refinement of the targets, before the global strategy could be presented to the CBD at COP6. The recommendation specifically recognised the Council of Europe/Planta Europa European Plant Conservation Strategy as "a valuable contribution to global plant conservation".

Likewise, later that month, the Standing Committee of the Bern Convention considered and recognised the European strategy as a valuable contribution to global plant conservation.

The following year, in April 2002, Planta Europa and the Council of Europe submitted the final version of the European strategy, again as a contribution to the global one. What would the world think? As it happened, at the formal plenary, speakers from over forty national delegations supported the adoption of the global strategy, many of them stressing the regional approach to implementation by citing the European Plant Conservation Strategy.

The Global Strategy for Plant Conservation was formally adopted on 19 April 2002. The result is a clear way forward for plant conservation; the world community now has a precise framework for the work.

Planta Europa is delighted that as the first regional plant conservation strategy produced, it is serving as an example for other regions who are undergoing similar processes to ensure that the global strategy contains "bottom up" elements – for after all the CBD is designed to be implemented at national level.

September of this year sees the fourth Planta Europa conference (Valencia, Spain, 17-20 September 2004) organised by the Regional Government of the Valencian Community and the Botanical Garden at the University of Valencia in association with Plantlife International and the Council of Europe. After all this talk of strategies, paper and meetings there is a real need to get on with the work. The aim of the conference is therefore to showcase success stories and thereby build the European Plant Conservation Strategy with real conservation action.

Jane Smart
Executive Director of Planta Europa and Chief Executive of Plantlife International
14 Rollestone Street
GB-Salisbury, Wiltshire, SP1 1DX
jane.smart@plantlife.org.uk

All organisations involved in plant conservation are invited to join the growing Planta Europa network. Please contact the Planta Europa secretariat: Nadia Bystriakova, at the address below for details or see www.plantlife.org.uk or www.plantaeuropa.org. For details of the forthcoming Planta Europa conference see www.nerium.net/plantaeuropa

Endangered mus

Just as at one point not so long ago when vipers, toads and other predators were somewhat discredited, the importance of mushrooms and fungi in the environmental sector is even today not fully realised: some people think of them as merely something good to eat, others comment that there are certain poisonous species which can kill you, and these should be trampled under foot, while yet others see them as hallucinogenics.

However, mushrooms play a crucial role in the life of ecosystems. There are more than 8 000 visible species (that is, those which are big enough to see) in Europe. Unfortunately, many are endangered. Mushrooms or fungi used to be classified as vegetables but today they are in a class of their own, and yet do not appear in Appendix I to the Bern Convention.

In 1997, France appointed me NGO representative on the Standing Committee. I put forward the case for fungi to the committee delegations, with the support of a large number of European scientists.

The Bern Convention secretariat asked me to produce a report in 2000 on endangered mushrooms and fungi in Europe. This gave me the opportunity to collate the

Invasive alien species in Slovakia

Slovakia like many other countries faces the problem of invasive alien species which invade not only human-made ecosystems but penetrate into semi-natural and natural ecosystems and also threaten protected areas.

The Ministry of the Environment and the State Nature Conservancy of the Slovak Republic, in particular, have been systematically dealing with the problem since 1997. First of all it started with the mapping of invasive alien species distribution and later, based on the results of the mapping, with eradication and control of some selected species. However, most of the work has been done in relation to invasive alien plant species so far. In 2002 a *List of Alien, Invasive Alien and Expansive Native Vascular Plant Species of Slovakia* (second draft) was published. According to the list forty-seven taxa are considered to be invasive at national level and forty-nine at regional level. Increased attention as regards mapping and management is being paid to these particular plant species and about 3 000 sites of fifty species have been recorded so far. Practical management (mostly eradication and control) is concentrated in protected areas, but areas where no special protection is provided are also subject to action where these species exist. Every year nature conservation bodies take care of about 120 localities. Good results are, for example, with control of *Heracleum mantegazzianum* in the Nízke Tatry National Park (Low Tatras) and in the protected landscape area of Kysuce. As for the other sectors, water management authorities contribute to the elimination of invasive alien plant species through regular management of water courses.

Legislation and invasive alien species

The law (Act No. 543/2002 Coll.) on nature and landscape protection should significantly help to solve the problem of invasive alien species. Some of its regulations also provide protection for ecosystems composed of natural species, including:

– regulation of intentional dissemination of alien species;
– monitoring of occurrence, population size and spread of alien species;
– elimination of invasive alien species.

As well as these regulations the law also deals with the trade in invasive alien species and obliges owners (administrators, tenants) to eliminate invasive alien species from their land. However, in everyday life law enforcement conflicts with many other problems, such as unclear and disputed land ownership, and so the state now has to bear the main burden of alien species elimination. According to an order of the Ministry of the Environment the compulsory elimination of invasive alien species applies only to the seven most problematic plant species: *Fallopia japonica*, *Fallopia x bohemica*, *Fallopia sachalinensis, Heracleum mantegazzianum, Impatiens glangulifera, Solidago canadensis* and *Solidago gigantea*.

Enforcing the law

The law and its enforcement is one side of the coin, the other is how society understands, accepts and supports it. Society often has limited understanding of the range of threats posed by invasive alien species. Building awareness and public support is a very important part of the struggle. The State Nature Conservancy is also developing many activities in this field, for instance contributions to local, regional, and national mass media (newspaper, magazines, radio and television broadcasting), brochures, leaflets, and educational programmes for schools.

All the above-mentioned activities concerning invasive alien species are just the first steps towards solving the problems posed. To be more successful, a pile of work is still waiting for Slovakia, for instance the preparation and publishing of further lists of invasive alien species in those systematic groups which have not yet been researched (non-vascular plants, birds, invertebrates), the development of bilateral co-operation with neighbouring countries, shared responsibilities with other sectors: governmental and non-governmental organisations as well as general public, etc. The European strategy on invasive alien species makes a lot of concrete suggestions and recommendations for further work. A national strategy on invasive alien species – not only its preparation and approval but its implementation in particular – is the biggest challenge for Slovakia.

Alžbeta Cvachová
State Nature Conservancy of the Slovak Republic
Centre for Nature and Landscape Conservation
CZ-974 01 Banská Bystrica
cvachova@sopsr.sk

Ema Gojdičová
State Nature Conservancy of the Slovak Republic
Regional Office for Nature and Landscape Conservation
Hlavná 93
CZ-080 01 Prešov,
egojdic@sopsr.sk

shrooms in Europe

various regulations and red lists available in thirty countries in Europe and the study was published in the *Nature and Environment* series.

In 2001 the scientific committee of the European Council for the Conservation of Fungi (ECCF) presented a document containing thirty-four datasheets on endangered mushrooms in Europe which could be included in Appendix I to the convention. Sweden took an active part in formatting the document and was due to propose that it be adopted at the Standing Committee's twenty-third meeting. However, Sweden had to withdraw this proposal, expressing its regret that it had been unable to count on the support of the majority of the European Union countries.

We hope that there may be some changes to the convention in the near future that will help promote the protection of mushrooms and fungi.

Jean-Paul Koune
27 rue du Commandant François
F-67100 Strasbourg
jean-paul.koune.jec@wanadoo.fr

Stoelwinder Fotographie/Bios

Bringard/Sunset

The Japanese knotweed (Fallopia japonica) *is taking over Europe*

The protection of invertebrates

The protection of invertebrates would not be where it is today without the Bern Convention and the efforts of the many people who have toiled, under its umbrella, to demonstrate the importance of invertebrates in terms of biodiversity. The 1 200 000 species of invertebrates so far described account for nearly 95 % of the animal kingdom and occupy a primordial position in biological cycles, both on dry land, in marshland and in water. Until 1986, when the "Invertebrates Charter" was ratified by the Committee of Ministers of the Council of Europe, they were the poor relations of nature protection. They were studied only by soft-hearted dreamers or, in the case of the tiny minority of species causing problems for human beings, livestock and human cultures, by researchers and practitioners charged with "controlling" populations. The effects of this double irresponsibility have been devastating: accumulation of highly toxic residual pesticides in the biosphere, growing resistance among the target species, collapse in the populations of their enemies, and decline in those of their predators, particularly vertebrates.

Impact of the Bern Convention

What has the Bern Convention achieved here?

Shortly after invertebrate species were included in Appendices II and III of the convention in 1988, they also began to appear in national legislation. Their status then suddenly changed: ceasing to be disregarded, they became the target of very effective protection measures and tools for enhancement and thus protection of certain habitats.

The recommendations issued under the convention have consistently pushed members to collect information on at least some of their invertebrate fauna. In certain countries, this has led to the establishment of and/or greater support for institutions working in this field. The work of national centres in Austria, Belgium, France, Luxembourg, the Netherlands, Switzerland and the United Kingdom, in listing, monitoring, revising the status of and conserving species, has and continues to have a positive effect.

The growing number of national inventories has encouraged some researchers to collate the information available in order to evaluate the European status of entire groups. The report by Heath (1981) on endangered *Rhopalocera* (diurnal butterflies) in Europe and its update by van Swaay and Warren (1999) are two examples. Their effects are still felt today in various countries where practical programmes have been introduced to conserve the most endangered species.

Work under the convention has not focused exclusively on a few key groups (diurnal butterflies or dragonflies, for instance) but also on other groups (*Hymenoptera aculeata*, 1991), and even less popular species. In the latter case, activities have included, in particular, the drafting of action plans for bivalves of the genus *Margaritifera*. The resulting research, which has enhanced the level of knowledge of their biology, has helped to improve the situation of some, at least, of their European populations.

The protection of species is only one aspect of a reasoned policy of nature protection. It must be complemented by protection of habitats. For this to succeed, it is vital to identify clearly those that are of real significance. The publications devoted to saproxylic insects (1989), marine ecosystems (1990), wetlands (1992) and the habitats of invertebrates listed in the appendices to the Bern Convention and the Habitats Directive (1996) remain key references and have, in at least some countries, led to the emergence of practical programmes.

This list of work done under the Bern Convention and of its effects on the protection of European invertebrates is far from exhaustive. Its influence on European legislation (Habitats Directive) is another example. Rather than adding to the list, it is more important to stress that the most effective contribution of these activities has been to change attitudes. It is certainly no coincidence that groups which until recently dismissed any idea of protecting nature have suddenly become concerned for the future of butterflies, coleoptera and molluscs in the agricultural and woodland landscape. The message must undeniably continue to be proclaimed so that this attitude is sustained.

Yves Gonseth
Swiss Centre of Fauna Cartography (CSCF)
Terreaux 14
CH-2000 Neuchatel
yves.gonseth@unine.ch

JC Malausa/Bios

Pearl mussel (Margaritifera margaritifera) *on a rock in Ireland*

What space for large carnivores in Europe?

"But the wildest of all the wild animals was the Cat. He walked by himself, and all places were alike to him."

Rudyard Kipling (Just So Stories)

When talking about carnivores, we hear words like hate, evil, bloodthirsty, vicious but also majestic, beautiful, mystic. Scientists working on large carnivores often say that they are charismatic, but first of all they are a conflict species.

In Europe large carnivores have been living close to humans since prehistory, sharing space and resources. None the less, most European carnivore populations have experienced large reductions in numbers and distribution. In the last century nature conservation became one of the priorities of European societies. The image of large carnivores has also changed and they are no longer perceived as pests, but as an essential and vital part of sustainable ecosystems. Yet, this approach is still not so common, especially among those who live close to the carnivores and whose wealthy existence depends on them. In addition, we probably know more about Siberian tigers or Chinese giant panda than about our European endemic, critically endangered Iberian lynx or wolverine, characteristic of the northern landscape of Fennoscandia and the Russian Federation, the most elusive and least known of European carnivores.

When thinking about the conservation of large carnivores, one has to bear in mind their ecology, the fact that they are wide-ranging animals requiring continuous and relatively undisturbed habitats, that they live in quite low densities, have low reproductive output, travel long distances when young and are quite vulnerable to landscape changes. Therefore, their successful conservation is a very complex process and requires appropriate management of large areas, the use of sufficient methods of damage prevention and mitigation and appropriate management of populations in multi-use landscapes. But as we cannot protect carnivores inside protected areas (however big and spacious they may be), it also requires a change in human attitude towards the presence of large carnivores in our modern environment.

Recent changes in policy

The last few decades have brought an essential change in policy towards the protection, conservation and management of large carnivorous species. Management objectives have switched from extermination to conservation. Populations of wolf, Eurasian lynx and brown bear have begun to recover in many European countries and regions through natural recovery and reintroduction. In many cases the successful stories of large carnivores returning to their natural territories have been a result of international co-operation and a multi-partner approach.

Large carnivores are included in the Bern Convention and listed as "protected" (Eurasian lynx) and "strictly protected" (wolf, brown bear, wolverine and Iberian lynx). For the last fifteen years the Council of Europe has been successfully working on large carnivore conservation, has organised numerous meetings and workshops, created a Group of Experts on Large Carnivores and together with the Large Carnivore Initiative for Europe (LCIE) elaborated action plans for five large carnivore species in Europe.

Apart from appropriate and sustainable management, habitat conservation and effective damage prevention measures, there is a need for more radical conservation methods. There is a need for space for large carnivores in people's minds, not only for those ferocious but mystic wolves, bears, and lynxes but also for the much lesser known wolverines. There is a need for space and tolerance and agreement for co-existence for Nature, for others, for those not like us.

"... and when the moon gets up and night comes, he is the Cat that walks by himself, and all places are alike to him. Then he goes out to the Wet Wild Woods or up the Wet Wild Trees or on the Wet Wild Roofs, waving his wild tail and walking by his wild lone."

Rudyard Kipling (Just So Stories).

Agnieszka Olszanska
LCIE co-ordinator
Institute of Nature Conservation PAS
al. Mickiewicza 33
PL-31-120 Krakow
olszanska@iop.krakow.pl
www.large-carnivores-lcie.org

S. Cordier

Little is known about the wolverine

Cry wolf!

Since they were recorded as reappearing in 1992 in the central area of the Mercantour National Park, wolves have become more widely distributed in the Alpine massif. As a result of favourable ecological conditions (rural depopulation, rapid reafforestation, geographical and demographical expansion of wild prey) and, since 1993, the status of "protected species" under the international (Bern Convention) and European (Habitats Directive) commitments entered into by France, there are now probably more wolves (between fifty-five and seventy) than the thirty or so individuals officially recorded to date.

Bitter disagreement

Despite being welcomed by public opinion, defended by ecological groups as a symbol of wild nature whose return has restored national biodiversity and as an essential prerequisite for the proper functioning of ecosystems, wolves are still the subject of bitter disagreement. In the mountainous areas where wolves were resettled, the eradication of predators had permitted the extensive rearing of lambs in the preceding thirty years. Most breeders had given up tending their flocks, but with the presence of wolves they found they had to make significant changes to their ways of working, or to revise them completely, in order to keep their stock safe. The crisis in this sector of activity, the survival of which depends on agricultural grants, made it particularly difficult to cope with an additional structural constraint on top of existing problems. Between 1997 and 2003, the implementation of two European Life programmes, which aimed to provide shepherds with resources for protection and with compensation for losses and for the efforts required in living with wolves, opened the way to reconciliation. The funding of these measures made it possible to reduce the degree of conflict by helping the adversaries of yesterday to become partners, encouraging consultation and collaboration, and building confidence between breeders, the authorities concerned and the associations supporting the rehabilitation of the large carnivores. However, despite the progress made, the future of the wolf remains a matter of debate and still provokes violent disagreement. This antagonism is not explained solely by the damage to stock caused by wolves, which is relatively light when compared with the diseases that decimate sheep every year or the depredations attributable to stray dogs.

S. Cordier

Wolf (Canis lupus)

A multi-faceted conflict

The problem raised by the reappearance of the wolf takes different forms, depending on whether its protection is associated with the restoration of environments, or regarded as urban exploitation of rural communities with the purpose of replacing declining pastoral activities with an economy based on nature tourism. Wolves are charismatic creatures imbued by folklore and history with ambivalent attributes, and they have in effect been "recruited" for much more far-reaching disagreements. Those who have been complaining about camouflaged reintroduction for the last ten years and regard the predator as the "Trojan horse" of an "ecological plot" to dispossess the traditional custodians of the mountains of their freedom of enterprise by imposing a new "slavery" on them, still call for eradication of the "nuisance". For the detractors of the wolf, attacks on flocks provide the ammunition with which to pillory the idealistic, technocratic failings of an "ecologist" culture which pits Nature against Humanity and is deaf to the economic and social consequences of its entrenched attitudes. Opposition to wolves contrasts the legitimacy of local communities managing their own territory as they see fit with the "diktats" of "Paris" or "Brussels" and sharply criticises the irresponsibility of protecting nature at a cost which is disproportionate to the anticipated benefits. Those who feel, on the other hand, that the difficulties created by settling wolves permanently within the national territory are part of an obligation on the state to reinforce failing policy on the protection of natural areas, argue that the Bern Convention and the Habitats Directive require the management of species. The defenders of the wolf claim that it is a prerequisite of sustainable management of mountain regions to maintain wolves in a "favourable state of conservation". This must, they argue, lead to the creation of protected zones and the coherent expansion of "ecosystemic" management of environments nationwide.

These competing ways of looking at the problem influence decisions about the management of these large predators, which is expected to be technically effective, biologically satisfactory and above all socially acceptable. The Ministry of Agriculture and the Ministry of Ecology and Sustainable Development, who are jointly drawing up a plan to "regulate" the wolf and support pastoralism, in order to maintain the achievements of the Life programmes for the next five years, intend to make use of the dispensations authorised by both the Bern Convention and Article 16 of the Habitats Directive to reduce to a strict minimum the impact on stock-rearing. This plan, which will be published in June 2004, is being presented as a "reasoned strategy" that should reassure the sheep-rearing community. It will establish support measures for breeders exposed to wolves and will argue the need for "population quotas" and the geographical restriction of wolves to the Alpine massif because of the financial impossibility of extending guaranteed compensation beyond the communities already covered in 2003. If this plan is adopted, it will none the less fail to satisfy ecological groups, which are threatening to refer it to the National Nature Conservancy Council as an infringement of the principle of caution and a worrying precedent for the future.

Because it typifies the difficulties raised by the need to achieve a fair balance between the continuation of human activities and the requirements of preserving species and environments, the "wolf affair" is thus a key issue. It directly affects the credibility of the French State in meeting its European and international commitments to protect biodiversity.

Patrick Degeorges
Doctoral student of political sociology and public policy
PROSES / Sciences Po Paris
104 rue Blomet
F-75015 Paris
degeorgesjames@wanadoo.fr

The Bern Convention and the cats

Europe hosts three cat species: the Eurasian lynx (*Lynx lynx*), the Iberian lynx (*Lynx pardinus*), and the wildcat (*Felis silvestris*), listed in the Bern Convention under Appendix III (Eurasian lynx) and II (Iberian lynx and wildcat). The cat species are also listed in the IUCN red list. Here, the Eurasian lynx is mentioned as "near threatened", the Iberian lynx as "critically endangered", and the wildcat as of "least concern", whereas the Scottish wildcat (*Felis silvestris grampia*) is considered "vulnerable", and its upgrading is being discussed.

One of the top items on the conservation agenda is the preservation of the Iberian lynx, the world's most threatened cat. The efforts to conserve this endemic species of the Iberian Peninsula is at the same time an example of co-operation of an IUCN body with the Bern Convention. The convention follows a top-down approach to conservation. The signature countries commit themselves to protecting nature according to international standards and under peer supervision. The institution responsible for this is the Standing Committee, with the secretary's office as its watchdog. This is a wonderful instrument in all cases where nature conservation needs a strong political commitment and strict cross-border co-operation – and this is generally true for large carnivore conservation. The IUCN/SSC Cat Specialist Group, on the other hand, is a group of experts and scholars, who provide knowledge on the ecology of the species and insight into conservation techniques, but typically are not the decision makers. The members of the specialist group can, however, provide expert knowledge to the authorities in charge. It is already a tradition that expert groups such as the Large Carnivore Initiative for Europe (LCIE) closely co-operate with the secretary of the Bern Convention with regard to large carnivore conservation.

In the case of the Iberian lynx, the Bern Convention, the Spanish national authorities, the Junta de Andalucía, the LCIE, and the IUCN/SSC Cat Specialist Group organised a seminar on the conservation of the Iberian lynx in Andújar (Andalusia) in October 2002. This was the start of a close co-operation between the five institutions. Since then, the so-called international follow-up committee for the conservation of the Iberian lynx (Bern Convention secretary, LCIE co-ordinator, and chair of the Cat Specialist Group) have repeatedly visited Madrid and Seville to review progress regarding the conservation of the Iberian lynx together with all partners from Spain.

Urs Breitenmoser and Christine Breitenmoser-Würsten
Co-Chairs, IUCN/SSC Cat Specialist Group
Institute of Veterinary Virology
University of Bern
Laenggass-Str. 122
CH-3012 Bern
urs.breitenmoser@ivv.unibe.ch

Fragile, please take care

One of our more fragile semi-aquatic mammals lives in the Iberian Peninsula and the western Pyrenees. It inhabits streams and small rivers with clean and fast-running waters. People rarely see it and often don't recognise it as a mole. Small and hairy, it has other particular morphological features: large hind paws with natatory membranes and a prominent proboscis. The first feature is an obvious adaptation for swimming. The proboscis, we know now, contains its key sensorial apparatus regarding touch. To it, vision is almost nothing.

We call it the Pyrenean desman or Iberian desman, the Latin designation being *Galemys pyrenaicus*. Its sole cousin lives in the Russian Federation, *Desmana moschata*, and both share an endangered future in Europe. As for many other species, its vulnerability is mostly related to changes in habitat.

What can we do for this beast?

Because it is aquatic and exigent, we have to maintain the natural character of watercourses. As it cannot move easily out of water, we must avoid the building of hydroelectric dams and other infrastructures that physically and morphologically change the riverbed and the river banks, creating barriers and fragmented populations. When work is planned we must carry out an environmental impact assessment (EIA), and respect measures to replace bank vegetation and to construct fauna passages. As it feeds only on freshwater invertebrates, where there is a dam or a water pumping station, we must ensure the maintenance of a minimal "ecological" flow. As it dives for foraging but breathes air, we must avoid the use of nets in rivers in desman areas as they contribute strongly to mortality by drowning. As it is not a well-known species, we must encourage research and public awareness. This concerns us all.

To know more about appropriate conservation measures for *Galemys pyrenaicus*, look at Recommendation No. 47 of the Standing Committee, adopted on 26 January 1996, on the conservation of European semi-aquatic insectivores.

Ana Isabel Queiroz
Institut for Nature Conservation
Rua Filipe Folque 46-1°
P-1050-114 Lisbon
aiqueiroz@mail.telepac.pt

C. Sanz/Phone-Bios

Iberian desman

Protection of amphibians and reptiles

Amphibians and reptiles are characteristic and important components of many European habitats but are also among the most severely threatened animal groups in the world. Apart from the more obvious threats, such as habitat destruction and pollution, many species also suffer from unsustainable pressures including inappropriate habitat management, traffic-induced mortality, collection for the pet trade and, in some cases, outright persecution.

The Bern Convention has long been a powerful mechanism for drawing attention to the plight of amphibians and reptiles, especially among governments and policy makers, and for initiating practical conservation measures throughout Europe. The Standing Committee is advised by its Group of Experts on the Conservation of Amphibians and Reptiles, which includes both governmental and NGO representatives, and also commissions on-the-spot appraisals to gather more detailed information where necessary. The Conservation Committee of the Societas Europaea Herpetologica has been a particularly active participant and, indeed, the work of its former chairman, Dr Keith Corbett (who has recently retired), predates even that of the Bern Convention.

As a result of these activities, the Standing Committee has adopted twenty-one recommendations since 1987 that directly relate to the conservation of amphibians and reptiles. Eleven of these involve marine turtles (see text box by Lily Venizelos), while ten concern terrestrial species. Three of the latter recommendations have incorporated a wide range of proposals to European governments while seven have addressed problems faced by particular species and their habitats. These include the Hungarian meadow viper *Vipera ursinii rakosiensis* (Hungary), the natterjack toad *Bufo calamita* (Ireland), the great crested newt *Triturus cristatus* (United Kingdom), threatened reptile habitats on lowland heathland (United Kingdom), the Milos viper *Macrovipera schweizeri* (Greece), the spur-thighed tortoise *Testudo graeca* (Spain) and the Aesculapian snake *Elaphe longissima* (Austria, Czech Republic, Germany and Ukraine).

Medasset

Turtle lost on a beach invaded by tourists

Improved legal protection

The conservation measures proposed and realised as a direct result of the Bern Convention have resulted in the improved legal protection of species and habitats, direct habitat management, re-introduction and education programmes, further surveys and research. Numerous threats to amphibians and reptiles, such as development pressures, roads, mining, tourism, pollution and introduced species, have been reduced in specific areas, and beneficial practices, such as traditional agriculture, supported. In some cases, projects to implement Bern Convention recommendations for amphibians and reptiles in EU countries have attracted substantial Life grants. In addition, the Standing Committee also plans to commission detailed species action plans for a range of European amphibians and reptiles.

Of course a huge amount remains to be done to ensure the continued survival of many amphibian and reptile species in Europe. Incorporating biodiversity conservation into sustainable development plans, ensuring positive agricultural reform, re-establishing the ecological networks and habitat corridors that are so crucial to terrestrial species and investigating recent mass amphibian die-offs are just a few of the challenges that will be faced in the future. Unlike much other wildlife, however, generating support for amphibians and reptiles is often extremely difficult. The need to protect rare venomous snakes, for example, especially when this is in direct conflict with schemes to create much needed jobs, would seem unlikely to receive a sympathetic and balanced hearing. None the less, this is exactly the type of situation that the Bern Convention has been helping to resolve for the last twenty-five years with such success.

Paul Edgar
The Herpetological Conservation Trust
655a Christchurch Road
GB-Boscombe, Bournemouth,
Dorset, BH1 4AP
paul.edgar@herpconstrust.org.uk

Anton Stumpel
Alterra - Green World Research
Wageningen University
and Research Centre (WUR)
Postbus 47
NL-6700 AA Wageningen
anton.stumpel@wur.nl

Mediterranean

Sea turtles are a flagship species for conservation. They are marine creatures that nest on sandy beaches: tourism has an enormous impact on their habitats and fisheries kill tens of thousands each year. In the 1960s, Mediterranean governments showed little concern for sea turtles. International agreements and national legislation have gradually emerged.

Governments spend enormous amounts on their main policies: tourism and development, while the environment is sidelined. They regard conservation objectives as a nuisance. Only international conventions, non-governmental organisations and public opinion can challenge this, as in the case of the intervention of the Bern Convention in Kazanli, Turkey.

Confusion

Contradictory land and sea legislation has often caused confusion and controversy, leading to inactivity and denial of responsibility for these dual habitat creatures.

Within the Bern Convention, contracting party delegates are “pro-environment”, but in practice they are often “economical with the truth”.

Environmental impact assessments (EIAs) should be mandatory. Conservation institutions should have the power and resources to veto decisions with adverse environmental impact. Environmental legal aid (ELA), funded by environmental “crimes” fines would allow use of the courts to secure better enforcement.

Since 1986 the convention has been pivotal in the case of sea turtles in Zakynthos,

Windfarms and birds


M. Gunther /Bios

Windfarms are developing rapidly in the Bern countries, as governments seek to counter the predicted impacts of global climate change. The BirdLife International report (*Windfarms and birds: an analysis of the effects of windfarms on birds, and guidance on environmental assessment criteria and site selection issues*), commissioned by the Council of Europe for the Bern Convention, sought to present an objective review of the available information on the impacts of wind turbines on birds and to provide guidance to minimise the risks of such impacts.

The main hazards for birds associated with wind turbines are collision, disturbance leading to displacement and habitat loss.

Fatal collisions

Several cases of high levels of bird collision mortality have been associated with poorly located wind turbines. Collision risk is greatest in poor flying conditions that affect visibility or the birds' ability to control flight. Collision mortality is a problem for large, long-lived species, especially if rare, that are slow to mature and have a low reproduction rate. Even small increases in their mortality rates may be significant, particularly when cumulative mortality occurs across their geographical range.

The scale of habitat loss, together with the availability of alternative habitats, will determine whether or not there is an adverse effect of habitat loss or disturbance exclusion. Loss of, or damage to, habitat due to wind turbines and associated infrastructure, is a concern in sensitive habitats. Windfarm installations may disrupt ecological links between feeding, breeding and roosting areas.

There is a need for robust, objective baseline studies to inform sensitive siting of windfarms and minimise deleterious effects on birds and their habitats. Post-construction monitoring is also necessary at consented installations where there are environmental sensitivities. There is a need to determine the geographical scales at which impacts may apply. The present unknowns hamper effective decision making.

It is advocated that statutory or qualifying international (for example, Natura 2000) or national sites for nature conservation, or other areas with large concentrations of birds, especially species of conservation concern, should be avoided for windfarm development, as a precautionary measure.

Rowena Langston
Conservation Science Department
Royal Society for the Protection of Birds
The Lodge
GB-Sandy, Bedfordshire. SG19 2DL
rowena.langston@rspb.org.uk

sea turtle strife!

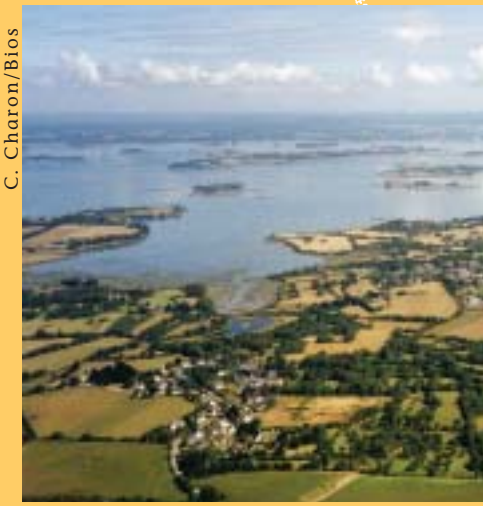
with on-the-spot assessments, discussions in the Standing Committee and recommendations to Greece. Cyrille de Klemm's 1996 "analysis of the legal position in Zakynthos", for the Bern Convention, showed that legal barriers were not responsible for Greece's failure to take decisive action.

The setting up of the Zakynthos National Marine Park announced at the 1999 Standing Committee meeting was followed by uproar in Zakynthos, due to the lack of compensatory measures, and the local feeling that it was an unwanted decree. This conflict continues today.

Sea turtle conservation is as much about people as about wildlife: in the end, it is politics – not biology.

Lily Venizelos
MEDASSET- Mediterranean Association to Save the Sea Turtles
1c Licavitou St.
GR-106 72 Athens
medasset@hol.gr
www.medasset.gr

A new approach outside the protected areas



C. Charon/Bios

Ruault Peninsula (France)

Nature conservation concepts and strategies over almost a century have mainly focused on the protection of scenic landscapes, pristine habitats and rare or threatened species. A growing number of sites of outstanding value became designated as nature reserves, national parks or areas of specific conservation status. These were also the key items and objectives of the classic international treaties at the time of their creation.

In recent decades, landscape and habitat fragmentation throughout Europe has been generally recognised as a core problem of conservation. Spatial isolation, shrinkage of the surface area and the decreasing quality of natural habitats are the main threats for biodiversity. They are the triggers for many physical and ecological processes or functions with negative impacts on natural habitats and thus on the viability of plant and animal populations.

With the Pan-European Biological and Landscape Diversity Strategy and the European Landscape Convention the Council of Europe recognised the importance of an integrated conservation approach, not only through the protection of outstanding natural areas or individual threatened species, but also by integrating action in a broader regional context, covering landscape features and also small elements of both natural or anthropogenic origin.

Landscape fragmentation

In the light of increasing landscape fragmentation and in order to establish functional networks of ecosystems and habitats, concepts of "ecological corridors" and "nature restoration" have been developed. The traditional and quite successful practice of nature conservation envisaged as a priority the protection and sound management of valuable nature sites or landscapes for their physical and ecological character, including life communities or specific species. This strategy has clearly shifted towards a more integrated approach that perceives a site or habitat as one component of a whole: the surrounding environment. Nowadays, targets, priorities and decisions are also based on reflections concerning the "functional role" of these components in the landscape ecological context.

Historic land development must therefore also be taken into account in order to agree on relevant references in space and time, determining ecological patterns and processes. Thus the "historic and ecological authenticity" of landscapes was added as a criterion, preventing unrealistic projects of species introduction and the creation of totally artificial habitats as a substitute or compensation for lost precious original regional characteristics.

Given the drastic effects of landscape and habitat fragmentation, the crucial challenge for conservation is to establish or restore a "functional connectivity" maintained by biological and geophysical interrelations. Although a number of sound ecological basic principles and guidelines have been set up, the designation and especially the implementation of corridors on both the European and regional scale turn out to be the crucial link in the ecological network concept.

Constant risk of conflicts

As nature conservation is not the only function and rarely has the highest priority in physical planning, these connectivity zones and stepping stones risk being in constant conflict with existing land use. In the framework of monothematic and sector-oriented planning traditions it is necessary to set up a multifunctional landscape concept. Without proper planning procedures the environmental and habitat qualities for often small patches of land have to be maintained without suitable instruments. Where linking corridors are missing, the restoration of habitats and axes of functional connectivity through nature restoration or development projects is even more difficult. For a number of species, especially large carnivores, survival largely depends on the territorial integrity of their favoured habitats and the potential for undisturbed migration between populations. In this light the construction of new transport axes (such as the Via Baltica) or other infrastructure projects (canals, hydrological changes etc.) really threaten the rich natural resources of the countries concerned and they need a preliminary environmental impact assessment including the study of alternatives. Permanent ecological monitoring is also required to enable the development of mitigating measures where necessary. Here the Bern Convention or EU directives can function as important references.

In the light of the above, it also seems essential to actively protect the wealth of natural elements in the common or garden landscape, as this often represents the last remnants of the "connectivity matrix" linking natural areas valuable in their biodiversity. Global pressure on the environment due to the ever-increasing intensity of agricultural exploitation, urban, industrial and infrastructural development has had a destructive effect on numerous critical species and on biodiversity in general.

A network of corridors

Even if nature conservation could stop the decrease in biodiversity (the EU 2010 target!), many specialised species in the process of disappearing will find it difficult to return to their original distribution areas as a result of man-made barriers and the lack of a sufficiently dense network of corridors. Therefore, as well as the need to preserve large areas and specific sites for habitat development, an important precondition is the quality improvement of the overall environment including the remaining habitats, and the restoration of interconnectivity between existing habitat patches by altering the existing land use. Target species, populations, communities or ecosystems suffering from isolation need free migration and dispersal of species in multifunctional landscapes. Conservation cannot restrict itself to protected areas. A mix of legal instruments and agreements between different authorities and the involvement of a variety of stakeholders are necessary to ensure a successful implementation and maintenance of the biodiversity concept at the integrated landscape level and on an appropriate bio-geographical dimension.

With only 2 % to 10 % of land surface as strictly protected core areas and up to 30 % urbanised area in some densely populated countries or regions, conservation has to increase its efforts in a transboundary approach to take care not only of red list species or unique habitats, but

also of "simple" natural riches outside reserves and national parks before they vanish. Existing conventions and directives quite rightly include specific or rarer species and habitats in their appendices for priority action such as designating special areas of conservation and maintaining "favourable conservation status". In addition, however, the time has come to also pay attention to more common environmental elements contributing to biodiversity in general. This requires specific instruments (management agreements with the agricultural sector, ecologically sound forestry principles, alternatives in infrastructural design) as well as long-term biological monitoring and, in particular, increased educational efforts aimed at the public at large.

Eckhart Kuijken
Institute of Nature Conservation
Kliniekstraat 25,
B-1070 Brussels
eckhart.kuijken@instnat.be

Towards reinforcement of the Bern Convention

When this issue of *Naturopa* is published, significant changes will have taken place on the map of Europe. Ten more countries will be members of the European Union. Twenty-five Bern Convention member states will follow a common policy for sustainable use and conservation of biodiversity. They will be bound by common law and strict implementation requirements. Will this weaken or strengthen the Bern Convention?

Use the opportunity

We must act to be able to use this opportunity, not to weaken but to strengthen the convention. And there is a very good example – the Emerald Network, which designates the network of protected areas in Europe. Because of the strict monitoring of implementation of the Birds and Habitats directives, all EU member states have done the work in order to implement the Natura 2000 network by 2005. It has had its costs – some governments had to resign, some officials had to leave their positions and some countries had to answer to the European Court of Justice. But it has also given a lesson to the European Commission and now ten enlargement countries have had to submit a proposal for sites by 1 May. And these countries have fulfilled their task.

There is now a real political and practical niche for the Bern Convention: to complete the network outside the EU, to have the Emerald shine throughout Europe! Europe was the political force behind the decision to create a global network of protected areas. A global treaty, the Conference of the Parties of the Convention on Biological Diversity approved this decision in February and the Bern Convention has to become a significant driving force for implementation of this decision. With its pilot projects, it has initiated the work in many countries and now special attention has to be paid to member states from Africa, Southeast Europe and the Caucasus. In future we also have to strengthen the involvement of the Russian Federation in the process.

Following global political developments

The strategy of the convention and its member states always has been to follow the latest development of global political processes. The world summit in Johannesburg in 2002 generated a new challenging goal – to halt biodiversity loss by 2010. This goal is formulated in Chapter I of the Bern Convention. Since its entry into force twenty-five years ago, the convention has been working towards this goal. There are success stories to tell and there have also been failures. But the strength of the Bern Convention is in the fact that member states have been willing to work together and to change strategy, to be flexible if new pressures are brought on nature or if new trends in population size or distribution range of species are alarming. Management plans for species, strategies, guidelines, the case file system and reporting are significant instruments for reaching both the goal of the Bern Convention and that now set up by global society.

The Bern Convention has also been open to the NGO community. It has been benefiting from scientific advice and also from signals sent to halt unsustainable development projects. Civil society has always been involved in further development of the convention's work. Only by all working together can we reinforce the convention inside and outside the geographical borders of Europe.

Ilona Jepsena
Chair of the Standing Committee of the Bern Convention 2002-2004.
Ministry for Environment of the Republic of Latvia
Nature Protection Department
Peldu Iela 25
LV - 1494 Riga
ilona.jepsena@vidm.gov.lv

Imagine the scene

Cyrille de Klemm, one of the most eminent nature conservation lawyers, wrote this text for *Naturopa* in 1995. Several years previously, with specialists from the IUCN, he had proposed the setting up of a convention which would become the United Nations Convention on Biological Diversity, inspired in part by the Bern Convention.
The reproduction of his article, illustrated by a flight of birds dear to him, is homage to his memory.

It is the early twenty-first century, 2010 AD or thereabouts. All the countries of Europe have ratified the Bern Convention. They have been joined by the majority of countries along the southern shore of the Mediterranean and by those of north-western Africa. Apart from a few minor gaps, the convention is applicable throughout the western and the Palearctic region, including the Urals, the Caucasus and the Sahara; the major part of the Atlantic migration route for waterfowl is also covered.
In all these countries, the danger of extinction has been removed from nearly all vertebrates and higher order plants. There are restoration plans to take care of most of the formerly endangered species. They are monitored regularly, and observers now report that their numbers are on the increase nearly everywhere. The natural populations of most species are deemed to be viable and there is no longer any need to reinforce them with animals reared in captivity or with artificially propagated plants. The restoration plans take account of all the processes that affect the conservation status of the species concerned and of their habitats. In the case of invertebrates, lower order plants and micro-organisms, and most of the marine organisms which were practically disregarded for a long time, it has been possible to identify a fairly large number of endangered species and the habitats particularly favourable to them, and protective measures are starting to be taken.
All the endangered natural and semi-natural habitat types have been identified as well as the processes responsible for their destruction or deterioration. The areas most amenable to the conservation of those habitats have for the most part been designated as nature reserves. The others are in no danger now that general measures for the protection of natural habitats are an integral part of every land-use plan. Potentially destructive processes have been brought under control and their impact has been considerably reduced.

Situation under control

The Natura 2000 network of the European Union has been in existence since 2004 and is continuing to develop. By the common consent of all concerned, the network has been extended to those parties to the Bern Convention that are not members of the Union. For several years there have been no reports of exotic species being introduced and placing indigenous species and natural habitats at risk. Concerted measures have been taken by the parties to eradicate the most harmful species introduced in earlier times. Measures to control the import of exotic species have also been adopted.
All parties to the Bern Convention now have adequate legislation for complying with their obligations. Not only may they now regulate on the taking and selling of all wild species and establish protected areas; they are also – and this is more important – empowered to prevent the destruction of natural habitats, establish corridors from one protected area to another, conserve natural landscape features and minimise the effects of destructive processes.
To a very large extent these changes have been brought about by amending planning legislation so as to make proper provision for the protection of natural habitats. Another factor is the considerable development of schemes whereby contracts are awarded or incentives offered for the conservation and especially the management of natural areas and in some cases their restoration and re-creation as well. The landowners receive sufficient remuneration for these activities to provide them with an acceptable income, or income supplement. Thus these measures are popular. To have a valuable natural habitat on one's land is now regarded as a bonus and not a liability. More and more specialised training establishments offer courses for future advisers on environmental management. The new graduates are very much in demand, not least by local authorities concerned to apply ecological planning policies to their territory.
Most parties have devised national nature conservation strategies; and some are also in possession of plans for national, regional and local action, and of the administrative and financial resources necessary for putting them into effect; and all are entitled to essential supplementary funding from international aid schemes put in place by the European Union and other organisations.

The Standing Committee defines objectives

These achievements are largely due to the action of the Standing Committee of the Bern Convention. This is the committee which officially identified most of the threatened species. Since 1995 it has concerned itself with endangered habitat types, also singling out those areas that need priority protection by reason of their biological richness. It was responsible for issuing the recommendations which have led to their having protected status. It is, in addition, also the committee which identified the processes potentially damaging to biological diversity and natural habitats, and formulated guidelines for their regulation and management.
The committee began by preparing a strategy and an action plan identifying the shortcomings in the convention's application, setting precise objectives and establishing an order of priority among the studies to be undertaken and the conservation measures to be carried through. To formulate and monitor strategic action over the long term, it appointed a small group of independent experts to make a periodic examination and evaluation of general trends and conservation needs. The technical questions are examined, and proposals made, by small committees of specialists. In organising their meetings and preparing the essential basic studies, they were greatly helped by the parties' decision substantially to increase their voluntary contributions to the convention's budget and provide the secretariat with more staff.

Power of democracy

The procedures for monitoring the parties' success in implementing the convention are operating well. Periodically, the

Munier/Bios

Flock of cranes (Grus grus)

committee examines the detailed national reports submitted by the parties, assesses their conservation performance and decides what measures they should adopt in order to fulfil their undertakings. It points to any shortcomings and suggests ways in which the parties responsible can remedy them. The number of cases under examination began to increase considerably in 1995 when it dawned upon the NGOs that the Standing Committee, whose meetings they were attending in ever larger numbers, was an effective ally in their campaign to ensure compliance with the convention. For some years the committee's workload continued to grow, but shortly after 2000 AD the situation levelled off and the number of cases under examination has since fallen sharply, which goes to show that the convention is now being applied nearly everywhere.

The main factor responsible for this resounding success, which fifteen years ago seemed hardly conceivable, is, of course, public opinion. After the crisis, the public took up the cause of biological diversity and natural habitats with increasing determination. More and more people joined the voluntary conservation organisations, improving their financial situation and enabling them to play a decisive part in developing this new awareness. Democracy did the rest.

Cyrille de Klemm

COUNCIL OF EUROPE

Support for Transition in the Arts and Culture in Greater Europe (Stage)

Stage is a project specially tailored to the three countries of the South Caucasus (Armenia, Azerbaijan and Georgia). Launched by the Council of Europe's Cultural Policy and Action Department in 2000, it aims to help them develop new and dynamic cultural policies and foster cultural exchanges between them and with other European countries.

Stage aims at national level:
- to encourage an open, democratic and transparent approach to policy making and cultural management enabling public authorities, the cultural sector and civil society to work together more efficiently;
- to promote the four major principles acknowledged as key issues for cultural policy in most European countries: building cultural identity, respecting intercultural diversity, stimulating creativity and encouraging people to join in with cultural life;
- to help policy makers to accept the challenges of democratic transition, for instance in the fields of new ways of financing, decentralisation, privatisation, artists' status and development of civil society.

At European level:
- to encourage and foster regional initiatives and international co-operation;
- to reinforce stability in the South Caucasus region thanks to cultural co-operation.

Armenia, Azerbaijan and Georgia are the countries taking part. Austria, Germany, Greece, the Russian Federation, Switzerland, Turkey and Ukraine are observer and donor countries.

First phase of the project (2000-2003)

Forty activities, involving forty international experts and about 600 participants have been organised. They aimed to:
- develop national and sector-specific cultural strategies;
- launch a strategy for the training of trainers in all areas of culture;
- develop cultural policies for cities;
- foster relationships between cultural professionals;
- reinforce regional cultural exchanges and international co-operation.

Results so far are encouraging: the assessment by an independent expert (Grzegorz Boguta) was very positive and the beneficiary, observer and donor countries have seen the beginnings of a remarkable process creating efficient cultural policies in the South Caucasus, a priority region of the Council of Europe. With the successful completion of the first project, a second phase can be launched as was requested by the Council of Europe's Committee of Ministers.

Second phase of the project (2004-2005)

The new Stage action plan aims for the reinforcement of cultural policies and the development of cultural policies for cities.

Specific objectives:
- to help draw up and carry out cultural policies for museums and libraries;
- to initiate and reinforce cultural strategies for cities;
- to develop new partnerships for culture and foster pan-European co-operation.

Museums and libraries

Actions will include:
- helping to improve museums and libraries, following national evaluation of needs;
- organising workshops and training courses;
- writing manuals and guidelines;
- twinnings between museums and libraries from the South Caucasus and other European countries, with possible joint projects.

Cultural policies for cities

Actions will include:
- drawing up and implementing short- and medium-term cultural strategies;
- helping to strengthen local authorities' resources and skills;
- developing networks and new partnerships for culture;
- city twinnings between the South Caucasus and other European cities, with possible joint events such as exhibitions, cultural routes and festivals;
- developing new cultural partnerships and boosting pan-European co-operation.

Publications

Council of Europe texts – such as reports and manuals – will be drawn up especially for the project.

Evaluation

The new action plan will be regularly assessed by the beneficiary, observer and donor countries, with a final assessment by an external consultant at the end of the two years of activity.

For further information please contact:
Dorina Bodea
STAGE Project Manager
Cultural Policy and Action Department
Directorate of Culture and Cultural and Natural Heritage
Council of Europe
F- 67075 Strasbourg Cedex
dorina.bodea@coe.int

Hunting and environmental balance in Europe

Protection of the environment and natural resources is a key concern in the majority of European countries. As sustainable development is one of the priorities of the Parliamentary Assembly of the Council of Europe, it has decided to look at the relationship between hunting and environmental balance.

The countries of central and eastern Europe have a long hunting tradition, backed up by the existence of a rich array of animals. Large carnivores like the brown bear (*Ursus arctos*), the wolf (*Canis lupus*), and the lynx (*Lynx lynx*) are still found in significant numbers in Bulgaria, Poland and Romania, whilst in the majority of west European countries they have either vanished or are in the process of disappearing. Hunting legislation, drawn up in the Communist era, laid down many restrictions as regards both the use of firearms and the right to become a hunter. However, there were no provisions concerning property rights as they relate to hunting areas or maintenance of the environmental balance.

Following the fall of the iron curtain, commercial hunting – game tourism – has developed considerably in these countries. Improving the relationship between

B. Pambour/Bios

the economic advantages deriving from this recreational pursuit and protection of the environment with due regard for the principles of sustainable development is a priority for the Parliamentary Assembly. It is now essential to improve hunting regulations and co-ordinate not only technical aspects – relating to the identification of species that may be hunted, the definition of the open season, policy regarding migratory species and large predators, etc. – but also provisions relating to the actual practice of hunting itself, protection of the environment, etc. Lastly, harmonisation of the legislation is not just a simple operation of aligning national legislation, but also includes introducing a new dimension focusing on the sustainable development of rural communities. It is clear that this process of harmonisation must be addressed with care, with due regard for the principle of subsidiarity so as not to prejudice the various local traditions. The Assembly's Committee on the Environment, Agriculture and Local and Regional Affairs will be covering these different aspects in the report which is currently being drafted.

Information Seminar on the European Landscape Convention

The European Landscape Convention entered into force on 1 March 2004. By 1 July it had been ratified by thirteen states and signed by sixteen more. The convention work programme plans the organisation of information meetings in several countries. Armenia having signed the convention on 17 May 2003, the seminar, held in Yerevan on 23 and 24 October aimed:

– to provide better information for national, regional and local authorities as well as the main actors within Armenia (academics, architects, persons in charge of institutes or NGOs) on the implications and content of the convention;
– to identify and analyse the specific characteristics and needs of Armenia.

Following the seminar Armenia ratified the convention on 23 March 2004.

Conclusions of the Seminar on spatial planning and landscape

The participants in the information seminar particularly wish to thank the Armenian Ministry of Urban Development for taking the initiative of co-organising with the Council of Europe a Seminar on spatial planning and landscape.

The following conclusions were reached at the seminar:

1. *Armenia is a country with an exceptionally rich heritage. Wide valleys, plateaux, mountains, ravines and gorges alternate with lakes and rivers over an area of 29 800 square kilometres. This dramatic and extremely beautiful scenery is brought to life by the rich biodiversity of the natural environment, the setting of an immeasurable historical and cultural heritage.*
   The intangible heritage of customs, traditions, age-old knowledge and know-how has also contributed to shaping a unique landscape.
2. *Being a country in transition, Armenia still has to cope with economic difficulties, resulting in a form of territorial development that must be controlled and monitored in order not to jeopardise this heritage.*
   It is therefore necessary to take care to avoid any disappearance of, or damage to, parts of the national heritage as well as any alteration of the landscape that would result in it being degraded or even losing its distinctive character.
3. *Having signed the European Landscape Convention, the Armenian Government have expressed their intention to comply with its principles and ratify it soon.*
4. *It will therefore be necessary to ensure that all the provisions are introduced that will help to ensure the convention's proper implementation as regards both the distribution of responsibilities and the legal, scientific and technical aspects (Articles 4, 5 and 6 of the convention).*
5. *The convention provides in particular that each state party shall undertake to include the landscape in regional planning policies. This approach could be facilitated through the work of the Committee of Senior Officials of the European Conference of Ministers responsible for Regional Planning (CEMAT). The landscape is to be seen in a wider territorial development context.*
   At its last session, the ministerial conference adopted, on 17 September 2003, the Ljubljana Declaration on the territorial dimension of the sustainable development of the European continent. It details the numerous challenges shaping our future in Europe, including the transformation and disappearance of landscapes, and provides that states will in future have to submit reports (based on indicators) on how they implement the Guiding Principles for Sustainable Spatial Development of the European Continent.
   In this connection, various countries have drawn up national regional planning strategies. Such a step could be taken in Armenia, which would thus make it easier to establish a national umbrella instrument to give landscape policies a stronger basis. This strategy could be accompanied by the passing or appropriate implementation of the necessary legislation.
   It should be remembered that the landscape is one of the key aspects of Committee of Ministers' Recommendation Rec (2002) 1 on the Council of Europe's Guiding Principles for Sustainable Spatial Development (GPSS-DEC-CEMAT).
   The recommendation underlines the importance of three methodological principles that need to be highlighted with respect to the European Landscape Convention:
   – *horizontal co-operation: it is necessary to encourage interministerial co-operation on the landscape and to set up, for example, a national landscape council;*
   – *vertical co-operation: co-operation needs to be encouraged between national, regional and local levels;*
   – *public participation: the European Landscape Convention underlines the importance of such participation and explicitly refers to the Aarhus Convention;*
   – *the partnership of associations and NGOs.*
   Land must henceforth be seen as a limited and precious asset that must be developed with care and moderation, that is, used sparingly instead of being developed in a detrimental manner.
   Assets (biological diversity, cultural heritage, intangible assets) must henceforth be seen as an opportunity, as a source of enrichment and as a factor and driving force for development.
   A few key phrases used at the seminar should be called to mind: appointment of development officials; establishment of links with grass roots organisations, professional bodies and administrative authorities; contractual and consensual approach; taking account of the mythical and mystical value of specific sites; role of the collective imagination.
   Moreover, on a more practical level, concrete action needs to be pursued at certain pilot sites (Lake Savan, the river Hrazdan and the Yerevan master plan were mentioned in this connection), perhaps through the CEMAT regions of innovation project. The European Rural Heritage Observation Guide *also needs to be adapted to the situation in Armenia.*
   Finally, it is necessary to implement the provisions of the Ljubljana Declaration, which: calls on the European Union and the Council of Europe to enhance their co-operation on territorial development; and asks the European Commission to define tools that, on the basis of the experience of the Interreg, Phare, Tacis, Cards and Meda programmes, would facilitate co-operation between European and neighbouring countries in the field of spatial development in order to prevent divisions caused by unbalanced development.
6. *Finally, the exhibition on the landscape seen through the eyes of children in Armenia – a pilot scheme developed in Armenia in connection with the implementation of Article 6 of the European Landscape Convention – should be presented at the 2nd meeting of the Workshops for the Implementation of the European Landscape Convention to be held in Strasbourg on 27 and 28 November 2003.*

Council of Europe
Directorate of Culture and Cultural
and Natural Heritage
Regional Planning and Landscape Division
F-67075 Strasbourg cedex
Fax: 33-(0)3 33 41 37 51
christian.meyer@coe.int
Web: http://www.coe.int/naturopa

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Next issue: ***Nature and culture***

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