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## ***FROM THE RETEZAT NATIONAL PARK TO EUROPE'S "YELLOWSTONE" – SEEDS FOR THOUGHTS ON THE ESTABLISHMENT AND EFFICIENT MANAGEMENT OF EUROPE'S LARGEST PROTECTED AREA COVERING THE SOUTHERN AND WESTERN CARPATHIANS IN ROMANIA AND SERBIA***

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■ **Abstract:**

*The Carpathian Mountains and the Danube Delta are key biodiversity and wilderness hotspots of Romania and, indeed, for Europe. Large areas of forests in the Carpathians and extended wetland areas are places where wildlife can find a refuge and where people longing for solitude and beauty can enjoy them. Where are these places and what should we do to keep them? The proposal launched in this paper comes with the intent to convince that it is not too late to maintain the Carpathians and, even if we can not maintain the entire mountain range in its present status, there are some key areas that are already protected to certain extent and can become the largest protected area of Europe.*

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■ **Keywords:**

*CARPATHIAN MOUNTAINS, BIODIVERSITY AND WILDERNESS, RETEZAT NATIONAL PARK*

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■ **THE CARPATHIANS – A KEY AREA FOR  
CONSERVATION IN THE WORLD**

*The Carpathians arch over an area of more than 200,000 km<sup>2</sup> in Central and Eastern Europe and include territory of seven countries: Czech Republic (CZ), Hungary (HU), Poland (PL), Romania (RO), Serbia (SR), Slovakia (SK) and Ukraine (UA). Altitudes vary from 300 to 2655 m above sea level. Three sub-regions are defined in the Carpathian arc: the Western Carpathians, which are partly located in SK, PL, HU and CZ; the Eastern Carpathians, which cover parts of*

*SK, PL, UA and RO; and the Southern Carpathians, which are entirely located in Romania and Serbia. The mountains are composed mainly of sequences of sandy rocks (flysh formations) with small parts of limestone or magmatic rock. Former glaciers have curved out lakes at the highest points, whilst countless valleys owe were created by the rivers. The region receives twice as much rainfall as the surrounding area, and this freshwater feeds the Danube, Vistula and Dnister and their major tributaries Prut, Aluta and Tisza, tending up in the Black and Baltic Sea. More than 80% of*

Romania's water supply (excluding the Danube) and 40% of Ukraine's water supply comes from the Carpathians.

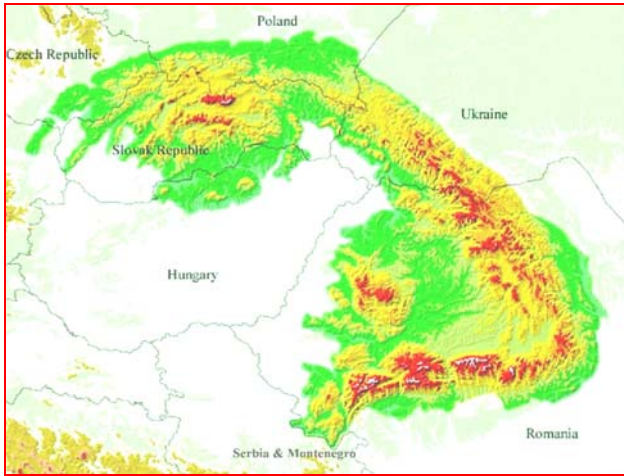


Figure 1: The Carpathian Mountains Ecoregion, source WWF DCP, 2001

Over 1/3<sup>d</sup> of this mountain range of exceptional geological, biological and landscape diversity constitutes the backbone of Romania. Compared to other mountain ranges in Europe, the Carpathians are not exceptionally high. In Romania the highest peaks are below 2.600 meters and the mountain is relatively fragmented, cut by deep valleys and with large depressions inserted between peaks and high plateaus. This fragmented landscape shaped in many parts by extensive agricultural practices and mostly close to nature forestry still harbours large areas with little human influence.

The Carpathians have many of Europe's last great wilderness areas as well as rich cultural landscapes, including the continent's most extensive tracts of montane and old-growth forest as well as most of the European populations of large carnivores.

Thanks to their exceptional level of biodiversity, the Carpathian Mountains are included in WWF's "Global 200" Ecoregion list.

The Global Ecoregions is a science-based global ranking of the Earth's most biologically outstanding terrestrial, freshwater and marine habitats. It provides a critical blueprint for biodiversity conservation at a global scale. Developed by WWF scientists in collaboration with regional experts around the world, the Global Ecoregions is the first comparative analysis of biodiversity to cover every major habitat type, spanning 5 continents and all the

world's oceans. the carpathians are considered as one of the critically endangered ecoregions.

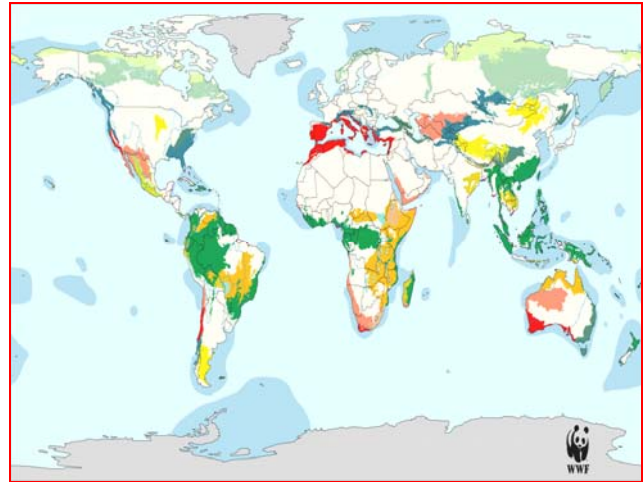


Fig. 2. Global 200, source WWF, 1999 – 2000

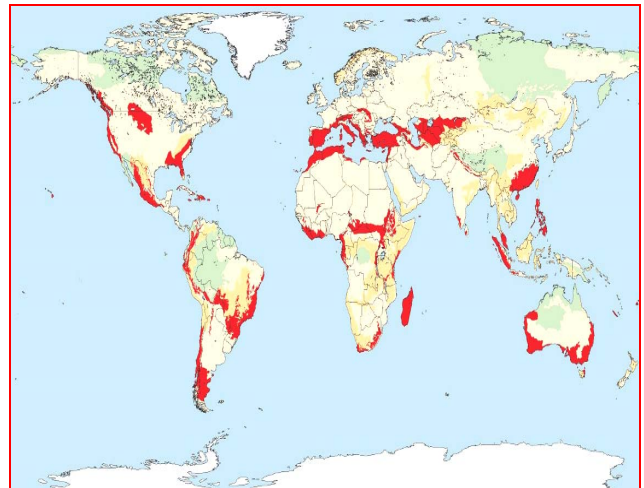


Fig. 3. Global 200 – critically endangered ecosystems indicated with the red colour, source WWF

Chosen as one of the 238 ecoregions around the world noted for 'exceptional level of biodiversity, such as high species richness or endemism, or those with unusual ecological or evolutionary phenonema, the Carpathians host Europe's most extensive tracts of montane forest, the largest remaining natural mountain beech and beech/fir forests ecosystems, and the largest area of old-growth forest left in Europe. The map below shows the old-growth forests mapped with support from the Dutch Government in the Romanian Carpathians in 2003.

The large tracks of still natural forests together with extraordinary, rich, semi-natural habitats such as mountain pastures and hay meadows, which are the result of centuries of traditional management, the region's biodiversity is

unsurpassed in Europe. One-third of all European vascular plant taxa (3,988 plant species) can be found in this region, a remarkable 481 of which are endemic. The Carpathians also contain some of the most intact, wild river systems remaining in Europe. Many of the last flooded forests – the most endangered habitat in Europe – are found in the valleys of the Carpathians. The mountains are the critical watershed areas for the Danube, Tisza and Dnister rivers.

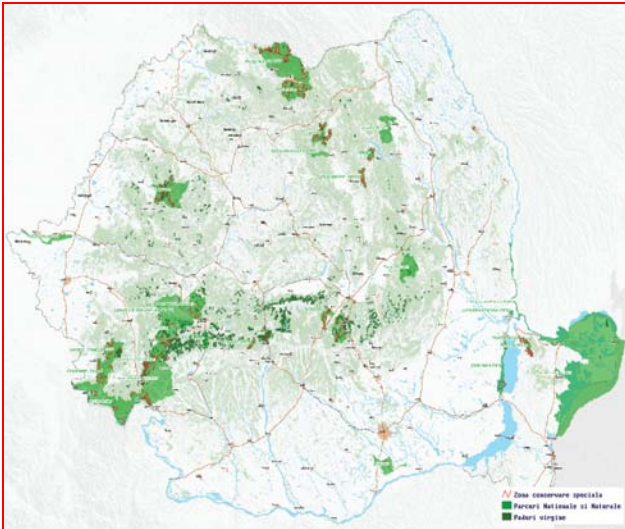


Fig. 4. Map of old-growth forests and national and nature parks in Romania, source Ministry of Environment and Forest Management Planning and Research Institute

The unique diversity of habitats of the Carpathians make them a heaven to globally threatened species such as the European bison (*Bison bonasus*), the Tatra Mountain Chamois (*Rupicapra rupicapra tatrica*) and the Imperial Eagle (*Aquila heliaca*). The bison and chamois are also endemic. The Carpathians are the last region in Europe to support viable populations of large carnivores. An estimated 8,000 brown bears (*Ursus arctos*), 4,000 wolves (*Canis lupus*) and 3,000 Lynx (*Lynx lynx*) can still be found here.

These European and global treasures are under threat as a result of the changes the region is undergoing as it becomes increasingly integrated into the European and global economy. The ecoregion is under severe threat from unsustainable logging, habitat destruction from changing land use; habitat fragmentation/destruction from infrastructure development and destruction of freshwater habitats from river regulation and flood control.

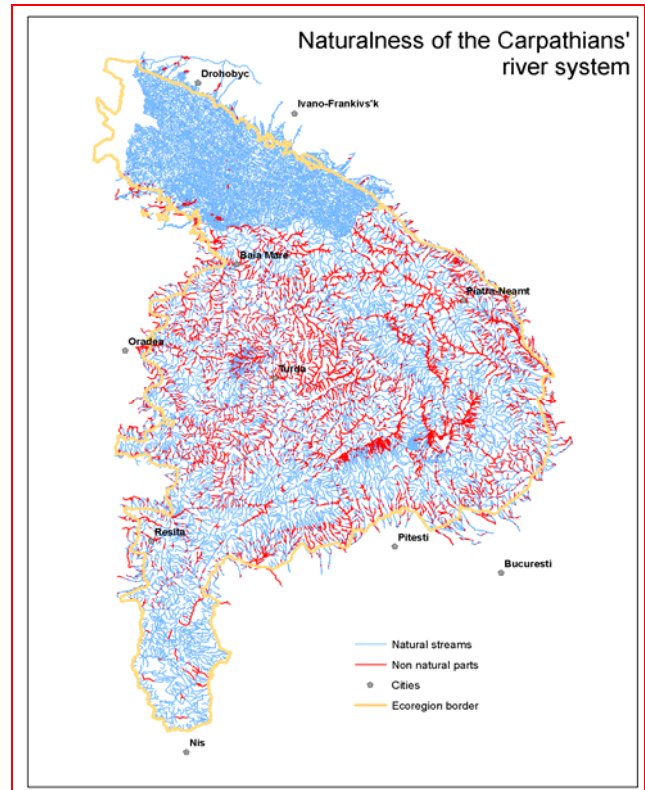


Fig.5. The river system of the Carpathians, Source Development of Carpathian Ecological Network Project, 2009

#### **HISTORICAL, POLITICAL AND ECONOMIC CONTEXT**

The Carpathians are currently undergoing unprecedented change due to economic transition and integration within the European Union. Increased exploitation of resources following recent entry into the market economy has been further exacerbated by current patterns of economic growth that have accompanied EU accession and the impacts of globalization. The situation varies considerably from country to country and from region to region, characterized by dynamic economic development in some parts and ongoing isolation in others. Five of the Carpathian countries (Czech Republic, Hungary, Poland, Slovakia and Romania) have already joined the EU and the remaining two (Serbia and Ukraine) have expressed their interest to join. To date, the EU has given Serbia but not Ukraine the perspective of future membership in the Union. To help generate high-level political support for sustainable development in the Carpathians, the Carpathian Ecoregion Initiative – initially an informal consortium of more than 50 organizations from six countries in the



*Carpathian region – created the first cross-cultural biodiversity and social-economic assessment of the Carpathians. The Danube-Carpathian Summit organised by the Romanian Government and WWF in Bucharest in April 2001 led to the development and signing of the Convention on the Protection and Sustainable Development of the Carpathians (Carpathian Convention) in Kyiv in May 2003 and came into force in January 2006. The Carpathian Convention Interim Secretariat is presently hosted by the UNEP Regional Office for Europe from Vienna, Austria. The first two Conferences of the Parties were organized in 2006 and 2008. It is expected that at the third Conference decisions will be made on the future permanent location of the Secretariat.*

*The Carpathian Convention is a framework convention and the first significant political step ensuring environmental protection and socio-economic development in the Carpathian Mountains. Efforts are now underway to give the Convention more legislative power through a series of protocols. The Convention obligates the signatories to enhance their efforts to achieve sustainable development of the Carpathian Mountains through a wide range of sector-related activities, such as biodiversity, agriculture, forestry, water management, energy and transport. The Carpathian Network of Protected Area (CNPA) has been established as part of the Carpathian Convention and is considered as one of the key contributors to the implementation of the Convention ([www.carpathianparks.org](http://www.carpathianparks.org))*

*European Union policies are a major factor, both positive and negative, on sustainable development and conservation in the Carpathian Mountains. Closer integration into the EU's Common Market and some EU policies and funding are leading to the intensification of a number of threats to the natural values and long-term sustainability of the Carpathians, including development of mass tourism facilities (e.g. ski resorts), transportation infrastructure, and agricultural intensification as well as abandonment of traditionally farmed areas.*

*At the same time, however, increasing EU integration is also driving forward adoption and implementation of a number of progressive EU laws and policies. Even Ukraine, which thus far has not been presented with the perspective of future membership in the European Union, has*

*been aligning its national laws and policies to important pieces of EU legislation. This presents potentially powerful tools for nature conservation and sustainable development, including the Water Framework Directive and the Habitats and Birds Directives. Legislation for assessing and limiting negative impacts on the environment, e.g. the Environmental Impact and Strategic Environmental Assessments (EIAs, SEAs) are also providing supportive policy environments for sustainable development.*

*At the same time, recent reforms to EU funding programmes have made significant new opportunities available for financing nature conservation and sustainable development. Within the framework of the EU's Common Agricultural Policy for the next financing period of 2007-13, the new European Agricultural Fund for Rural Development (EAFRD) provides opportunities for supporting agri-environmental measures as well as measures contributing directly to implementation of the Natura 2000 network of specially protected areas. The EU's revised regional development regulations will provide significant new opportunities within the Structural and Cohesion Funds for supporting institutional development, training and infrastructure related to conservation and sustainable development.*

*To this day, most people in the Carpathians still make their living through farming. A large majority of this farming remains small in scale, labour intensive and with low inputs relying on traditional practices. The most far-reaching threat with potential wide-ranging environmental, social and economic impacts in the Carpathians is the intensification of agriculture. To a large extent, the most fortunate result of the policy of collectivization during the communist regime was that many areas and landscapes of the Carpathians remained traditionally managed or completely undeveloped, making room for a significant level of biological diversity. These areas are now extremely vulnerable to efficient land clearing processes that accompany intensive agriculture.*

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#### **■ SOCIAL AND CULTURAL CONTEXT**

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*The Carpathians are home to numerous nationalities and ethnic groups that are bound together by the highland lifestyle and many years of mixing and integration between the*

groups. Culturally, the Carpathians are steeped in age-old traditions and marked by peoples who have shared climate, hardships and a sense of isolation.

The people of the Carpathians have made their living by grazing on mountain pastures and cultivating fields in river valleys for generations. Historically, mountain shepherding has been one of the most important elements of Carpathian culture. Shepherds and their flocks can still be encountered in the Carpathian Mountains of Poland and Slovakia, and are common in the mountainous areas of Ukraine and Romania.

Much of the Carpathians escaped agricultural collectivization under Communism thanks to their relatively poor value for agriculture. As a result, private ownership remained the rule rather than the exception across much of the region. Agriculture went into a tailspin in the early 1990s following the fall of Communist regimes and the move to a more free-market system. The removal of agricultural subsidies, introduction of competition through free market reforms and resulting recession in the Carpathian countries has caused a significant decline in agricultural employment and rural incomes. The result has been the depopulation of rural areas, emigration of younger people in search of work, and consequent aging of the population remaining in rural areas. Traditional forms of land use and lifestyles are being lost, with important consequences for biodiversity, including e.g. flowering meadow ecosystems, as well as the continuity of cultural traditions and rural communities.

Restitution and privatisation of forest areas has become a major challenge for conservation in the Carpathians. Forest land which was nationalised by the Communist regimes after 1945 has been steadily handed back to its previous owners. This process has been completed in Slovakia, Czech Republic and Poland, and is currently underway in Romania, but is not planned in Ukraine where most of the former owners are dead and relevant documents are lost. Either of necessity or interest, many of the new land and forest owners have put short-term over long-term gain, and are either over-exploiting their new resources or selling them off with little regard for existing legislation governing the use and sustainability of these resources. As a result, land

and forest restitution has led to the rapid deterioration of land and forest resources that until recently has been relatively well managed or even protected. Indeed, the side effects of restituting land and forest resources pose a major threat to many protected areas in the Carpathian Ecoregion.

Alternative activities enabling sustainable livelihoods in the Carpathian Mountains for example through 'green' businesses like ecotourism, organic farming and water bottling are in progress but are still not developed enough to present a clear and attractive alternative. What is clear, however, is that the agricultural and forestry sector remains a vital part of life in the Carpathians and can provide a secure and profitable basis for the regional economy.

The key challenge for people, communities as well as biodiversity and natural resources of the region is to find a sustainable path for development, one which secures improved quality of life while holding onto the prodigious natural, cultural and social wealth of the region. In many ways, the Carpathian Ecoregion stands at a crossroads between long-term sustainable development on the one hand; and following the unsustainable path already experienced by many other parts of Europe and the world, including the gradual erosion of its biological wealth, on the other.

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■ **EXISTING PROTECTED AREAS – THE MOST IMPORTANT TOOL FOR MAINTAINING THE FEATURES OF THE CARPATHIANS**

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Protected areas are, or should be one of the most efficient ways to maintain the exceptional biodiversity and landscape values of the Carpathian Mountains. Currently there are 285 protected areas (see map above) in the Carpathians, covering 13%<sup>1</sup> of the region, with the northwest of the Carpathians more effectively covered and managed than the southeast part.

In the new EU member states (CZ, HU, PL, SK and RO), the designation of PAs according to the EU Habitat and Bird Directives, as part of the Natura 2000 network and CBD is quite advanced, but still not sufficient. In Romania, the designation process is being continued now with the designation of future Natura 2000 sites and

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<sup>1</sup> PROTECTED AREAS LARGER THAN 1000 HA

also some new protected areas of national importance. Serbia has a small part of the Carpathians, with one national park already designated. Ukraine took over the PA system, which had been established before 1990. In general, the existing PAs have very low levels of financial and political support for protection and management activities, and the cooperation between existing trans-boundary protected areas is low.

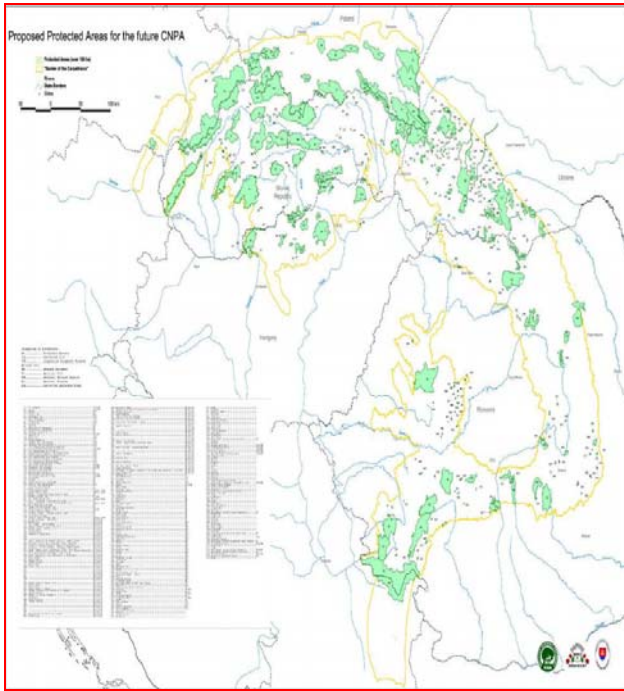


Figure 6: Protected Areas in the Carpathians, 2007

In Romania the distribution of protected areas established at the national level reflects very well that most of the natural values of the country are concentrated in the Carpathian Mountains. Most of the large areas that qualify as wilderness, natural or high biodiversity areas in the Romanian Carpathian Mountains are included in national and nature parks. The 14 national parks, equivalent of IUCN category II protected areas have core areas defined in the legislation as “integral protection zones” where the use of natural resources or any other human activities, except visitor access, are forbidden. Some of the alpine and subalpine pastures is being used by local communities for grazing to continue traditional activities that contribute also to the maintenance of some specific biodiversity. Areas ranging from a few thousand to 30 – 40 thousand hectares of forests or forest landscapes are still very well preserved in these national parks, with little or no human activities allowed.

Within these core areas large tracks of old-growth forests are still present. More than 900 smaller protected areas are also contributing to the maintenance of rare species and ecosystems.

Table 1: Protected Areas in the Carpathians – data collected by WWFD DCP, 2007

Country	No of PAs <sup>1</sup>	Total area (ha)	Legal responsibility for PA	Type of management authority
Romania	94	644,942	Ministry of Environment and Water Management	National Forest Authority, NGOs, local authorities, universities, private persons
Slovakia	64	817,720	Ministry of Environment /State Nature Conservancy	Forest authority; Forest owners and users; NGOs
Ukraine	77	355,880	Ministry of Environment and Natural Resources	State Agency for Protected Areas
Poland	21	556,496	Ministry of Environment	National Park, State Forest Administration, Local Forestry offices
Hungary	15	161,487	Ministry of Environment	National Park Directorates
Czech Republic	13	205,832	Ministry of Environment	Administration of Protected Areas
Serbia and Montenegro	1	62,943	Ministry of Science and Environmental Protection of the Republic of Serbia	Public Enterprises (mostly), NGOs approved by the Institute for Nature Conservation of Serbia
Total	285	2,785,300		



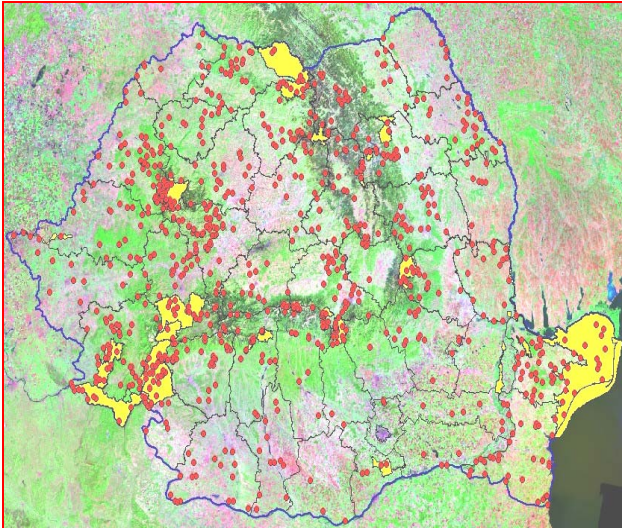


Figure 7 Map of Romanian Protected Areas at the national level, Ministry of Environment and Sustainable Development, 2007. Yellow: National and nature parks (IUCN category II and V) and biosphere reserves; Red: reserves and natural monuments (IUCN categories I, III and IV)

**FIRST STEPS TOWARDS ESTABLISHING CORRIDORS AND A LARGE SCALE PROTECTED AREA IN THE CARPATHIANS**

Even if protected areas are considered the most efficient tool for nature protection, they are not yet covering all critical areas for biodiversity and landscape conservation and, maybe more importantly, are not yet established as a real network. Sometimes protected areas are too small to allow enough room for natural processes and adaptation to new challenges, like climate change.

A recent analysis carried out to establish critical areas for an ecological corridor in the Carpathians. The study developed within the Development of a Carpathian Ecological Network Project is in an advance stage for Romania, Ukraine and Serbia and just started for Slovakia, the Czech Republic and Poland. The project covering Romania, Ukraine and Serbia is implemented by the Carpathian Ecoregion Initiative (CERI) Alterra, Bio/consult Ltd., the Daphne Institute of Applied Ecology, the European Centre for Nature Conservation (ECNC) and WWF-DCPO with financial support from the Dutch BBI-Matra programme. Critical gaps have been identified for biodiversity conservation, but also important areas that are already under some kind of protection and could easily become large refuges for wildlife. A preliminary map showing existing protected

areas (green) and critical areas for a functional ecological network are presented below. Please note that this map (Figure 8) and the one presented in Figure 5 and 10 are draft maps of the Development of Ecological Networks Project, subject to improvement in the coming weeks.

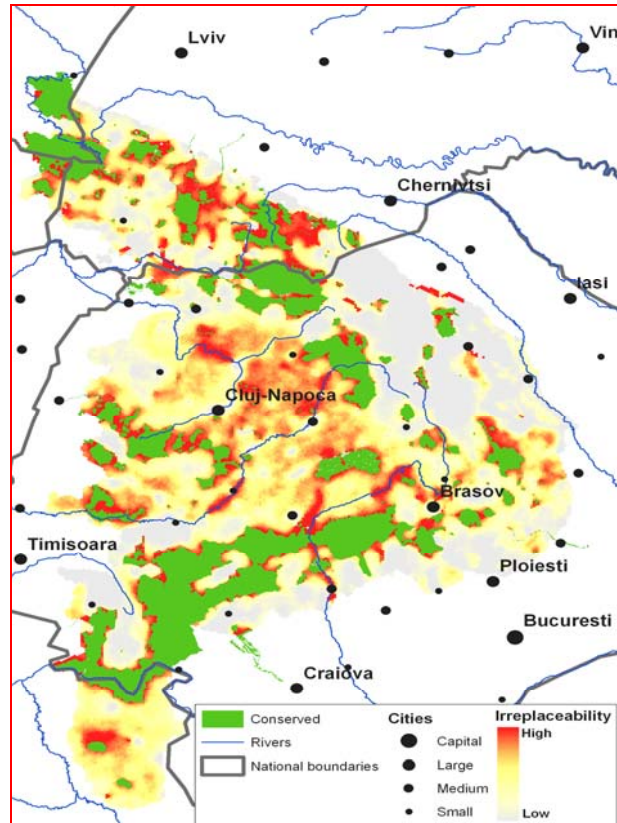


Fig. 8. Preliminary map of critical areas for biodiversity and protected area coverage in Romania, Ukraine and Serbia, source Development of a Carpathian Ecological Network Project, 2009

The map shows an amazing corridor of protected areas in the Southern Carpathians, stretching almost from the Prahova Valley to Djerdap National Park in Serbia.

If we consider only the protected areas of national interest, i.e. the national and nature parks (IUCN management categories II and V), the corridor is obvious only in the South-Western part of the Carpathians. The valuable biodiversity and landscapes have a good legal protection offered by the complex of 8 national and nature parks: Retezat, Domogled Valea Cernei and Cheile Nerei - Beusnita, Semenic - Cheile Carasului, Defileul Jiului national parks, Portile de Fier, Gradistea Muncelului - Cioclovina Nature Parks, Tara Hategului and Platoul Mehedinti Geoparks. With more than

500.000 ha this corridor is the largest area with a legal protected statute not only in Romania, but maybe for most of Europe. The Djerdap National Park in Serbia help stretch this large protected area over the border in Serbia.

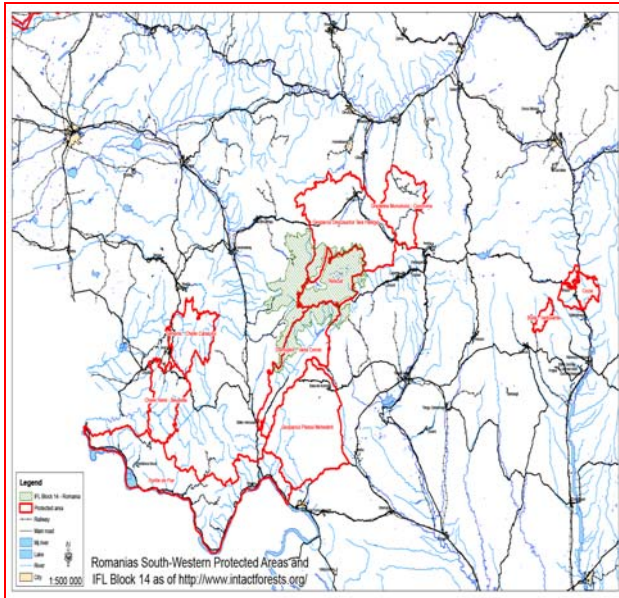


Fig.9. The protected area complex and the Intact Forest Landscape in the South Western Carpathians of Romania, source Retezat National Park, 2007

Table 2. Protected areas of national interest that could be the basis of the „European Yellowstone” in the Southern Carpathians

Protected Area	Surface [ha]
Parcul Natural Bucegi	32.598
Parcul National Pietra Craiului	14.781
Parcul National Cozia	16.721
Parcul National Buila-Vanturarita	4.491
Parcul National Defileul Jiului	11.136
Parcul Natural Gradistea Muncelului - Cioclovina	38.116
Geoparcul Dinozaurilor Tara Hategului	100.487
Parcul National Retezat	38.117
Parcul National Domogled - Valea Cernei	61.190
Geoparcul Platoul Mehedinti	106.492
Parcul Natural Portile de Fier	128.196
Parcul National Cheile Nerei - Beusnita	36.707
Parcul National Semenic - Cheile Carasului	36.219
<b>Total - Southern Carpathians</b>	<b>625.250</b>
<b>Total - South-Western Carpathians Protected area complex of the South-Western Carpathians</b>	<b>556.66</b>

This large corridor or complex of protected areas covers also a large part of the last Intact Forest Landscape (IFL) on the European continent, located south to the polar circle. A study developed under the coordination of Greenpeace, looking to large areas of forest landscape with no or very low human disturbance mapped all Intact Forest Landscapes in the World larger than 500 km<sup>2</sup>. The last “green spot” of Intact Forest Landscapes on the European map, if Scandinavian countries and Russia are excluded, is located here, in Romania, in the south-western corner of the Carpathians. Almost 90% of the IFL is already included in existing protected areas, but management measures are not yet adapted to support maintenance of this exceptional value. The IFL concept is not yet defined and accepted in the Romanian legislation and in the conservation management practices, even if the exceptional and unique value of the area has been recently confirmed through a study of the Ministry of Environment Sustainable Development. Economic developed through the Institute of Forest Management Planning and Research. Pressures are already high on this area, especially from transport and tourism infrastructure development and forestry.

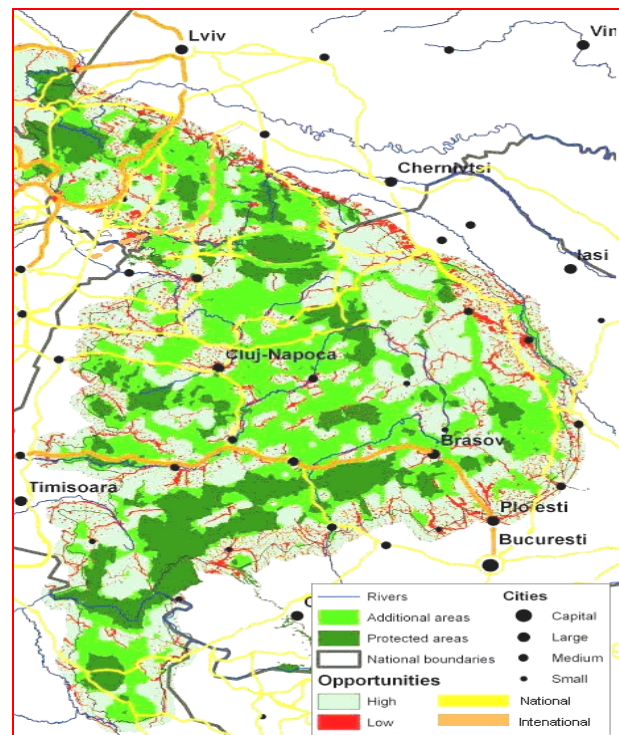


Fig.10. Existing major transport corridors and areas suitable for sustainable development, source Development of the Carpathian Ecological Network project, 2009



If we add the new protected areas, designated as future Natura 2000 sites, i.e. if we add the Fagaras Mountain SCI, the Frumoasa SPA, Strei-Hateg SCI, Parang SCI and the Tarcu SCI the extended “Yellowstone” comes into shape, covering almost one million hectares of the most valuable areas of the Carpathians.

These proposed “European Yellowstone” protected area would not only protect the representative landscapes and the rich forest and alpine biodiversity, but would also include many of the un-protected old-growth forests of Romania.

The Carpathian Ecological Network project, through a further analysis of the main transport infrastructure that is already developed in the region, demonstrates that the Southern Carpathian Protected Area Complex or the South-Western Protected Area Complex are not yet fragmented by major infrastructure development.

**■ PRESSURES AND THREATS THAT HAVE TO BE ADDRESSED TO ALLOW EFFICIENT PROTECTED AREA MANAGEMENT IN EUROPE’S LARGEST PROTECTED AREA**

Looking to the maps it is obvious that a critical first step is already done for most of the areas that would form Europe’s largest protected area: 19 national and nature parks and future Natura 2000 sites are designated officially by the Romanian and Serbian government.

However, an important question is still open: how realistic is to plan for a Europe’s largest protected area in the Southern Carpathians?

The brief analysis of the socio-economic context presented above, shows that the entire Carpathians are under significant development pressure that will be most likely present in the future, so the threats will not diminish, but most likely increase.

In 2001 a group of Romanian and foreign specialists trying to design an ecological network for large carnivores as a tool to secure one of Europe’s most representative and healthy populations of brown bears (*Ursus arctos*), wolves (*Canis lupus*) and lynx (*Lynx lynx*), has identified the following threats to wilderness areas and large areas that include natural forests and other ecosystems needed by these keystone species:

1. Land privatisation and encroachment, as more than 40% of the Carpathian forests have been fragmented through land restitution and un-sustainable management after 1990;
2. Changes in forestry, in the close to nature management before 1990 to a management that looks more to the economic benefits, determined by the pressure of the newly developed market economy;
3. Changes in agricultural practices, mostly land abandonment
4. Hunting and poaching
5. Stream valley deterioration, with an increasing pressure from hydropower development in the mountain areas – an increasing threat now, with the new commitments of Romania as a member of the European Union to reduce the use of fossil fuels
6. Very intense development of new transport infrastructure and associated pollution along the heavily used roads

As these threats are very relevant for the area of the potential “European Yellowstone”, even though the areas are already included in protected areas, a brief analysis of the major threats is presented below.

**Direct threats**

✚ **Unsustainable logging:** The Carpathian forests, particularly the old-growth forests and the forest in the lowlands such as floodplain forest are being cleared at an alarming rate. In order to get a short-term gain from the forest, exacerbated by the ongoing processes of land restitution, many forest owners or illegal loggers are reducing the quantity and quality of the forest in the Carpathians. Illegal logging has become a profitable business and is common in the Carpathians partly due to very poor forest governance systems.

✚ **Habitat destruction from changing land use:** The Carpathians are rich in a diverse set of habitats based on the limited population pressure and the less intensive natural resource management systems such as agriculture. The persistence of low intensity, traditional agricultural practices in the Carpathians makes the region the last bastion of many semi-natural grasslands that have vanished from most of Europe. With increasing intensification of agriculture and

land abandonment in many of the remote, rural villages, these nature rich systems are not being maintained and severe levels of biodiversity loss are underway.

✚ **Habitat fragmentation/destruction from infrastructure development:** Attempts to promote rapid economic development has led to poorly planned and inappropriate infrastructure development such as roads and ski developments in and through protected areas. Habitats are being torn up and fragmented by rapid growth in infrastructure development across the Carpathians. After many years of economic neglect, investment has been welcomed, but the relevant planning authorities and decision-makers lack the awareness and understanding as well as relevant skills and tools to seek sustainable solutions to infrastructure development and nature and resource conservation.

✚ **Destruction of freshwater habitats from river regulation and flood control:** The Carpathian region is remarkably rich in relatively intact river systems, brimming with life and providing drinking water to millions of people in southeast Europe. However, with the destruction of natural habitats and the growth of housing development in appropriate areas rivers have become the focus of the regulation and control work. This is ongoing and rampant throughout the region despite a growing understanding of the role of natural ecosystems in the provision of drinking water, flood control, recreation and waste water treatment.

#### **Indirect threats (root causes)**

The main root causes of threats to the Carpathians Ecoregion are as follows:

✚ **Inappropriate rural development:** The region contains one of the biggest areas of highly diverse semi-natural habitat and high-nature value farming systems in Europe, which is associated with more traditional, less intensive forms of production. These sustainable economic practices are threatened by abandonment in the highlands and intensification in the lowlands, which could mean also the lost of an irreparable cultural heritage and lifestyle.

✚ **Lack of financial and technical support:** Forest protection measures as well as protected area management measures are

often inadequate because of weak legislative frameworks and/or enforcement of existing legislation in the region. The lack of financial resources for the enforcement of existing legislation leads to illegal activities, including logging, corruption, and the inability to tackle cultural issues. In many cases, forest and protected area governance should be significantly improved.

✚ **Land restitution and privatization:** Land privatization and restitution are also resulting in activities that maximize short-term gain above all else – for example, increased cropping on unstable slopes that exacerbates erosion, or the clearing of small privately owned forests. Forest restitution also brings on the scene of forestry new actors – owners and administrators – who need to learn and implement sustainable forest management practices.

✚ **Unsustainable tourism** represents both a significant challenge to the biodiversity of the Carpathians, as well as an important opportunity for rural development for the region. Increased sustainable tourism in mountain areas is now considered as presenting significant potential for benefits to both rural environments and economies in the future. However, if not properly planned and developed, tourism will continue to represent a real threat through over-development of certain areas, and by opening up access to natural areas that should be preserved for nature.

✚ **Short-term economic gain:** The poverty suffered in the region and the opportunities of the capital and market opportunities has led to a rush for short-term economic gain through inappropriate development, emigration and rapid exploitation (legal and illegal) of the natural resources of the region. Corruption and poor governance have greatly facilitated and accelerated this process. Longer-term economic and social strategies are struggling to survive and predominate in this environment. As a result, protected areas have suffered throughout the Carpathians.

In 2006 an other group of specialists, most of them in charge with the management of national and nature parks identify the same threats. Protected area managers and some of the key stakeholders from the existing protected

areas have identified the top pressures and threats to protected areas, during a workshop organized by WWF Danube Carpathian Programme. The workshop was aiming to assess protected area management at the system level, using the Rapid Assessment and Prioritization Methodology of Protected Area Management (RAPPAM) developed by WWF. For national parks the most important pressure and threat identified is logging, followed by land use change and hunting / poaching. Land use change, logging, waste disposal and loss of traditions are the main threats identified for nature parks. Even though loss of traditions might not seem a threat that should concern nature conservationists, it is important to understand that the loss of traditions is strongly linked to traditional livelihoods more generally, involving agricultural practices that were significantly contributing to the maintenance of the biodiversity and valuable mosaic landscapes throughout the Carpathians.

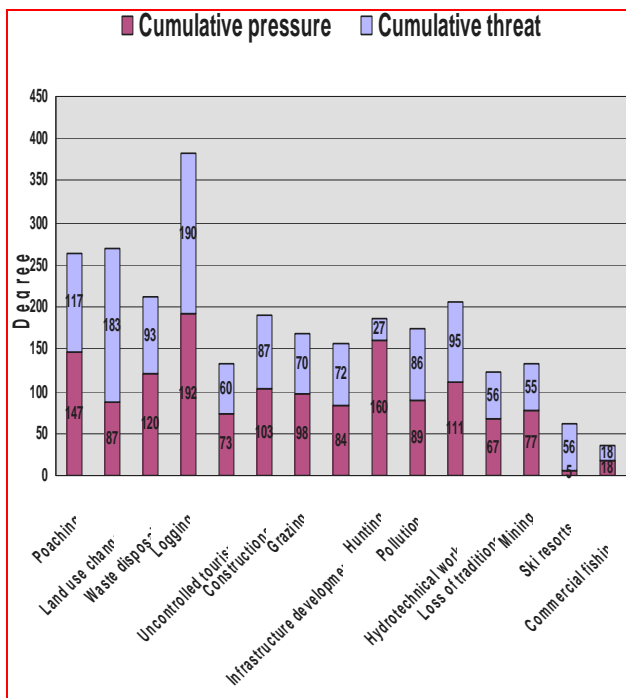


Fig. 11. The most significant threats and pressures to national parks, 2006, RAPPAM workshop

These threats are worrying by themselves. Adding the **unfavourable policy environment and weak protected area policies**, identified and acknowledged during the RAPPAM workshop by protected area managers, do not help in planning for a hopeful future for protected areas in Romania. As a new member of the European Union (EU), Romania had to

extend areas protected for their biodiversity values, increasing the surface of protected areas from about 8% of the national territory represented by national parks, nature parks, biosphere reserves, nature reserves and natural monuments to about 19% with the proposed Natura 2000 sites. But no resources other than some of the funds coming from the European Union are planned to develop an efficient protected area management system. Further more, the National Agency for Protected Areas, established after years of debates, in 2008 is now on the edge of disappearing even before it started to work for the support of protected area managers.

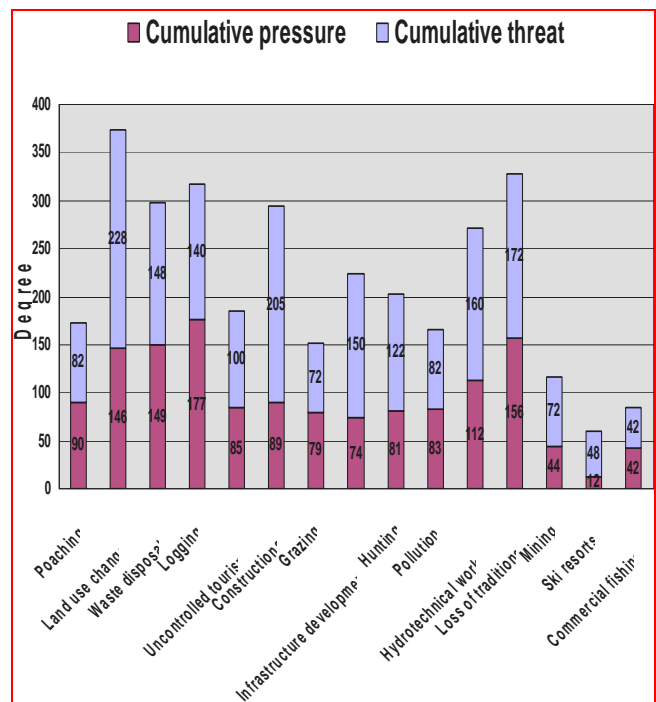


Fig. 12. The most significant threats and pressures to nature parks, 2006, RAPPAM workshop

The most important aspects for protected area management and for wilderness protection and management are, of course, related to financial and human resources. The Romanian government is not allocating at present any funds for protected area management. Further more, protected area management teams are very young and in need for training and capacity building programmes, whereas there are no coherent training programmes for protected area management. Therefore the question “how realistic is to plan for a European Yellowstone” is very legitimate.



■ **NEXT STEPS TO ENSURE EFFICIENT MANAGEMENT OF THE “EUROPEAN YELLOWSTONE” – THE LARGEST PROTECTED AREA**

Despite the unfavourable policy environment and serious lack of resources for maintaining the wilderness areas in Romania, there are various projects that try to find solutions by looking to values and benefits for key stakeholders or even setting up partnerships to promote and use protected areas for the benefit of people and local communities.

One of the successful initiatives is the certification of the Retezat National Park in the PAN Parks system and the establishment of a local tourism association that will promote the Retezat wilderness on the European ecotourism market. The model is there, it needs support to survive and to be extended to neighbouring areas.

There are also active conservation organizations that are supporting protected areas and the ecotourism concept as well as conservation of High Conservation Value Forests, thus contributing to the efficient management of protected areas, like WWF Danube Carpathian Programme, the Association of Ecotourism from Romania and many other NGOs from the NGO Coalition Natura2000 Romania.

But these are only small contributions to the huge task of providing a framework and enough resources for the European Yellowstone to become a viable and efficient protected area complex. Political will is key for such a big endeavour and to obtain it WWF needs the partnership and support of many other organizations and institutions. A strategy will be developed to plan the steps for such an ambitious campaign and hopefully others will join our efforts to maintain the values of Europe's largest protected area.

■ **REFERENCES**

- [1] BIRIS I.A., RADU S., COANDA CORINA 2002. *Pristine forests in Romania: sanctuaries for nature and treasures of biodiversity*. ICAS, KNNV. Bucharest.
- [2] ERIKA STANCIU and GERALD STEINDLEGER (April 2006) *RAPPAM (Rapid Assessment and Prioritization of Protected Area Management) METHODOLOGY IMPLEMENTATION IN ROMANIA - Key findings and results*

- [3] GIURESCU C.C. 1075. *History of forests in Romania from the old times till today*. Ed. Ceres. Bucuresti.
- [4] GIURGIU V. et al. *Pristine forests of Romania*. Ed. ASBL Foret Wallonne, Louvrin-le-Neuve. Belgia.
- [5] ICAS and Altenburg & Wymenga Ecological Consultants, 2006. *Safeguarding the Romanian Carpathian Ecological Network*
- [6] ICAS – Institutul for Forest Research and Planning, 2007, *Study for the inventory, mapping and establishing sustainable management measures for Intact Forest Landscapes, contract 3188/2007*
- [7] MAANEN E. VAN et al. 2006. *Safeguarding the Romanian Carpathian Ecological Network. Avison for large carnivores and Biodiversity in Eastern Europe*. A& W ecological consultants, Veenwonden. The Netherlands. ICAS Wildlife Unit, Brasov, Romania.
- [8] RADU S. 2001. *Biodiversity of Romanian pristine forests*, pag. 59-70.
- [9] BOISSON B., RADU S. 2007. *Romanian old growth forest : heritage, to be preserved / paduri seculare, patrimoniul ce trebuie salvat*, WWF DCP Bucuresti
- [10] *Governmental Ordinance nr 57/20.06.07 regarding the regim of the natural protected areas, conservation of natural habitats and of wild flora and fauna. Gazetted in M. OF. 442/29.06.2007*
- [11] *Development of the Carpathian Ecological Network – BBI Matra project implemented by the Carpathian Ecoregion Initiative (CERI) Alterra, Bio/consult Ltd., the Daphne Institute of Applied Ecology, the European Centre for Nature Conservation (ECNC) and WWF-DCPO*

■ **AUTHOR & AFFILIATION**

<sup>1</sup> ERIKA STANCIU

<sup>1</sup> WWF DANUBE CARPATHIAN PROGRAMME, CARPATHIAN FOREST AND PROTECTED AREA LEADER, ROMANIA