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CONVENTION ON THE CONSERVATION OF EUROPEAN WILDLIFE
AND NATURAL HABITATS

Standing Committee

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**Group of Experts
on Biodiversity and Climate Change**

(Strasbourg, 19 June 2014)

**-SUMMARY OVERVIEW OF THE WORK
CARRIED OUT BY THE GROUP OF EXPERTS ON
BIODIVERSITY AND CLIMATE CHANGE -**

*Document prepared by
the Directorate of Democratic Governance*

Summary overview of the work carried out by the Group of Experts

1. BACKGROUND INFORMATION

The provisions contained in the Bern Convention, together with the Resolutions and Recommendations adopted by the Standing Committee, form a tight coherent tissue of international hard and soft law which aims at enabling Contracting Parties to achieve a better protection and conservation of the natural heritage in the European continent.

Part of the Bern Convention's "added value" is to tackle complex and sensitive issues across Europe, long before they are addressed in legally binding instruments. Climate change and its interrelation with biodiversity conservation is part of the Convention's work since 2006, when the Standing Committee decided to set up a Group of experts on Biodiversity and Climate Change to review the effects of climate change on Europe's biological diversity and to provide guidance to Parties in developing adaptation and management policies.

More concretely, according to its terms of reference, the Group has the mandate to: (i) exchange information and review the effects of climate change on the biological diversity covered by the Bern Convention, including species and habitats, protected areas and ecological networks, in co-ordination with other biodiversity conventions and international organisations working on this issue (including with other institutions of the Council of Europe); (ii) propose advice and guidance for use in developing appropriate adaptation and management policies and actions for the conservation of the biological diversity mentioned above, including key policies that impact on ecosystem goods and services; (iii) present to the Standing Committee specific proposals, guidance and/or recommendations to help Parties address the challenges of climate change in the implementation of the Convention and its objectives.

Since its creation, the Group held 7 meetings and forwarded to the Standing Committee for examination and possible adoption ten comprehensive draft recommendations, providing guidance on topics such as climate change adaptation, climate change in mountain regions, in protected areas, in European islands, wildland fires, conservation translocations, marine biodiversity and climate change, among others.

Moreover, the Group also produced a number of specific technical reports addressing the challenges related to the spread of IAS and vulnerability of ecosystems to invasions; the impacts of climate change on amphibians and reptiles, on plant species, on invertebrates, and on migratory birds.

At its last meeting, in July 2012, the Group of Experts continued to address the impacts of climate change mitigation and adaptation, with a particular focus on governance and sectoral policies. It further monitored, for the first time, the implementation by Contracting Parties of the guidance so far adopted on biodiversity and climate change, through the assessment of the reports submitted by Parties on a voluntary basis.

The conclusions of the assessment report [document [T-PVS/Inf \(2012\) 11](#)] were not necessarily positive, as they identified important gaps in the implementation of the recommendations, particularly concerning the management of protected areas in the light of climate change, enhancing the adaptive capacity of vulnerable species, improving knowledge of species and habitats of special concern (particularly valid for plant species and invertebrates), improving knowledge and understanding of the role of wildlife, and implementing efficient and regular monitoring of species' populations. However, the participants stressed the relatively low number of reports sent by Parties for the purposes of the monitoring exercise (8 in 2012, 13 in 2011), and further noted that the information submitted by the Parties did not always reflect the multiple initiatives and efforts put in place.

In the light of the above, the Group prepared draft [Recommendation No. 159 \(2012\)](#) on the effective implementation of guidance for Parties on biodiversity and climate change, adopted by the Standing Committee at its 32nd meeting.

2. THE GROUP OF EXPERTS ON BIODIVERSITY AND CLIMATE CHANGE: OVERVIEW OF THE ISSUES ADDRESSED BY THE GROUP SINCE ITS CREATION

2.1 Mandate of the Group and adopted work-plan

The mandate of the Group of experts is appended to the Standing Committee's [Recommendation No. 122 \(2006\)](#) on the conservation of biological diversity in a context of climate change. According to it, the Group is requested to share information and provide guidance to Parties on understanding climate change impact and threats as well as tools and support in developing appropriate adaptation measures in national policies regarding the species and habitats protected under the Bern Convention.

The first meeting of the Group of Experts on Biodiversity and Climate Change, held in July 2007 addressed two main issues: (i) its future programme of work, and (ii) the technical issues raised in the first report prepared under the Bern Convention on climate change related issues: "Climatic change and the conservation of European biodiversity: Towards the development of adaptation strategies" [[document T-PVS/Inf\(2007\)03](#)].

In October 2007, a Select Committee of the Group of Experts gathering the representatives of five Contracting Parties, met in London for finalising the Group's work-plan. At that time, the Select Committee also discussed the value that the Bern Convention could add in this area, bearing in mind the wide variety of other work being undertaken on managing biodiversity in a changing climate by other institutions.

According to the adopted work-plan the Group had to concentrate on the main following issues:

- a) developing principles covering species, habitats and ecosystems as the basis for the draft "advice and guidance for adaptation and management policies and actions for the conservation of the biological diversity" which its terms of reference required;
- b) Promoting a better understanding of the impacts and changes to biodiversity that climate causes;
- c) Reviewing the definition of what is a "native" species in the context of climate change;
- d) assessing the specific needs of immobile species, such as long living plants, and species with reduced mobility such as amphibians and reptiles, so as to ensure that these are properly taken into account;
- e) considering coastal and marine ecosystems as part of future recommendations on habitat and protected area management;
- f) ensuring communication and information sharing, both with other organisations and institutions, as well as with the work of other Groups of Experts under the Bern Convention, and with other CoE institutions: the Parliamentary Assembly and the Congress of Local and Regional Authorities.

2.2 Achievements of the Group

The Group of Experts held 7 meetings (it met twice in 2008) during which the Parties regularly received updated information on key developments and initiatives on climate change and biodiversity at the international, regional and national levels, as well as at the level of other CoE institutions and the NGOs. The Group also commissioned and discussed eleven specific reports, prepared by consultants on behalf of the Bern Convention. In the light of these the Group examined and validated 10 dedicated draft recommendations.

a) Advice and Guidance for adaptation and management policies

Three general recommendations have been adopted for providing parties with advice and guidance on adaptation and management policies. They have been then complemented by a four other recommendations addressing the concern of specific groups of species or habitats.

- [Recommendation No. 135 \(2008\)](#) on addressing the impacts of climate change on biodiversity

Recommendation No. 135 (2008) includes an extensive Appendix which identifies a series of measures for addressing the vulnerability of species to climate change and for preparing adequate adaptation strategies; it further takes account of some cross-cutting issues among which IAS, and protected areas. According to the text of the Recommendation the Standing Committee:

Recommends Contracting Parties to the Convention and invites Observer States to:

1. *Address and communicate, as a matter of urgency, the impacts of climate change on biological diversity and its conservation;*
2. *Raise awareness of the link between biodiversity and climate and emphasis the large potential for synergies when addressing biodiversity loss and climate change in an integrated manner; including socio-economic effects;*
3. *Encourage the elaboration of climate change adaptation activities for biodiversity, taking account of the suggested measures listed in the guidance set out in the Appendix to the present Recommendation.*

- **Recommendation No. 143 (2009) on further guidance for Parties on biodiversity and climate change**

This Recommendation builds on the findings of further reports commissioned by the Group, and complements Recommendation No. 135 (2008). It also includes detailed guidance in its Appendix, namely for appropriate actions regarding Invertebrates and climate change, plants and climate change, *in situ* and *ex situ* species conservation, as well as protected areas and IAS. According to the text of the Recommendation the Standing Committee:

Recommends Contracting Parties to the Convention and invites Observer States to:

1. *Increase efforts to improve understanding of the linkages between biodiversity and climate change (according to Recommendation 135 (2008)).*
2. *Make full use of the large potential for synergies and co-benefits between biodiversity conservation and climate change mitigation and adaptation, including ecosystem-based approaches.*
3. *Ensure that biodiversity considerations, including potential negative impacts, are taken fully into account in climate change adaptation and mitigation policies and measures.*
4. *Develop climate change adaptation activities for biodiversity, taking due account of the proposed guidance set out in the Appendix to the present Recommendation; and*
5. *Continue to engage in the development and application of further guidance to implement the Convention.*

- **Recommendation No. 159 (2012) on the effective implementation of guidance for Parties on biodiversity and climate change**

In 2012 the Group of Experts carried out the first monitoring exercise aimed at taking stock and assessing the actions taken by the Parties in response to the series of Recommendations made by the Standing Committee, especially its Recommendations Nos. 135 (2008) and 143 (2009).

The consultant in charge of the independent monitoring was required to “*focus on adaptation, highlighting the main gaps and challenges encountered, the lessons learned and the examples of good practices*”, and to “*propose priorities for action and/or specific recommendations*”.

On the basis of the assessment report the Group prepared the above Recommendation, whereas the Standing Committee:

Recommends Contracting Parties to the Convention and invites Observer States to:

1. *Urgently implement the practical conservation measures that have been recommended by the Group of Experts and encourage appropriate national bodies involved in nature conservation to adopt and use them as resources permit; urgent action should more particularly focus on implementing adaptive management practices and strategies, enhancing the adaptive capacity of vulnerable species (rare/endemic/threatened), minimising pressures and threats on species and habitats that are most vulnerable to climate change, and implementing monitoring of, inter alia; species’ population trends, species behaviour, including phenology, and climate change impacts upon critical areas;*

2. *Take further steps to develop ecological networks, to promote and enhance the permeability of landscapes generally, and also enhance their protected areas networks, as appropriate, by increasing the extent of existing sites, designating new sites and establishing buffer zones, and ensuring they are sustainably and adaptively managed;*
3. *Take an appropriately long-term view, based on adaptive management methodologies, when formulating management plans and strategies for protected areas management;*
4. *Adopt, as appropriate, a more holistic approach when formulating strategies and plans for ecological networks or protected areas, and when developing conservation or recovery plans for individual species. In particular, encourage the general adoption of the examples of good practice reported, especially by Switzerland and Ukraine, with respect to taking into account their international context when planning ecological networks, and to developing networks and protected areas in partnership with their neighbours;*
5. *Adopt measures that encourage biodiversity conservation to be embedded across other sectors and taken into account when formulating policies or strategies for those sectors, also by informing policy-makers across the Parties about the opportunities for win-win solutions, for instance through the development and use of ecosystem-based approaches, when developing strategies for adaptation to climate change by their sector as well as for mitigation measures;*
6. *Undertake knowledge transfer activities using existing mechanisms, to encourage awareness by other stakeholders and the general public of the challenges posed and opportunities presented by climate change when considering biodiversity conservation, including its links to other sectors and the opportunities for win-win solutions;*
7. *Take account of the potential increased risk of wildfires as a result of climate change and embed, as appropriate, mitigation measures for consideration of this risk into protected area management plans;*
8. *Adopt the good practice, identified in the case of the United Kingdom, of implementing measures for the assessment of introductions that include assessment of the impacts of projected climate changes on species' invasion potential.*

Moreover, the Recommendation addresses the Group of Experts on Biodiversity and climate change with the following requests:

1. *Take all necessary steps to ensure that the importance of the issue of climate change on biodiversity, and understanding the role of biodiversity in adapting to and mitigating the effects of climate change is well recognised by all Contracting Parties;*
2. *Promote awareness among Contracting Parties of the examples of good practice identified and urge their implementation;*
3. *Ensure that those persons preparing reports from Parties for the Group of Experts are fully informed about relevant activities, for example monitoring activities, being undertaken in their country, thus avoiding spurious identification of gaps in the activities of that Party or of priorities for new actions by the Party;*
4. *Assess the potential for introduced species already present in the national territory of Contracting Parties to become invasive under future climate conditions, in close co-operation with the Group of Experts on Invasive Alien Species, and using information and methodologies developed in other fora, where appropriate.*

b) Promoting a better understanding of the impacts of climate change

The report on “Climate Change and the vulnerability of the Bern Convention species and habitats” [[document T-PVS/Inf \(2008\)6](#)] was the first document specifically commissioned for examining the direct and indirect impacts of climate change on the biodiversity protected under the Bern Convention. It identified the most vulnerable species (among mammals, birds, reptiles, amphibians, insects, fish and vascular plants) and habitats in the context of climate change. Moreover,

the report analysed the benefits of adaptation and mitigation measures taken on the short and long-term to combat climate change effects.

The same year the Group further discussed a “Review of existing international and national guidance on adaptation to climate change with a focus on biodiversity issues” [[document T-PVS/Inf \(2008\)12 rev](#)] focussing on existing international and national guidance (at the level of EU Member States).

➤ *Migratory Birds*

Considering birds as one of the best groups of animals for monitoring the effects of climate change, and taking into account the increased vulnerability of migratory birds, the Group commissioned a specific report on “Climatic change and the conservation of migratory birds in Europe: identifying effects and conservation priorities” [[document T-PVS/Inf \(2008\) 1 rev](#)], with the aim of assessing the scientific evidence linking climate change and the behaviour, distribution, and abundance of migratory species of birds, identifying what effects climate change could have on migratory birds in the future, and suggesting an adaptive management strategy for the conservation of migratory species of birds and the phenomenon of bird migration itself, in the face of the climatic change.

The conclusions and recommendations formulated in the report enriched the guidance annexed to the recommendations adopted by the Standing Committee on adaptation and management policies in the light of climate change.

➤ *Invertebrates*

The “Impacts of Climate Change on European invertebrates” [[document T-PVS/Inf \(2009\)8](#)] were discussed in 2009, on the basis of a report which presented evidence of invertebrate responses to climate change, and modelled responses of invertebrates to future change. The report further shed light on the mechanisms by which invertebrates would be affected by continuing change, and addressed the potential threats of climate change to invertebrate biodiversity.

The conclusions showed that species are likely to respond to climate change in individualistic ways, leading to sometimes unpredictable changes in distribution and abundance patterns, phenology and interactions between species. The report suggested that conservation programmes might need to be similarly flexible and dynamic as a result, but proposed nevertheless a set of general recommendations for adapting the conservation of invertebrates to climate change, among which to maintain large areas and networks of heterogeneous habitat, conserve existing populations of threatened species in a range of habitats and locations across their geographic ranges, minimise threats to vulnerable systems, facilitate range shifts (including by considering assisted colonisation by planned conservation interventions where appropriate), and undertake increased monitoring and research into the responses of invertebrates and ecological systems to climate change. The findings of this report were taken into account for the preparation of [Recommendation No. 143 \(2009\)](#).

➤ *Plant species*

Another report analysed in 2009 concerned the “Impacts of Climate Change on Plant species in Europe” [[document T-PVS/Inf \(2009\)9](#)].

The report stressed that the impacts of climate change would not be uniform, with some regions such as northern Europe experiencing moderate changes and turnover of species, while others, especially in the Mediterranean region and high mountain ranges, could expect serious disruption of existing ecosystems and their replacement with novel assemblages of species and the loss of considerable numbers of rare and endangered species in specialised habitats.

The report further warned about a high probability that plant diversity in Europe, both at the landscape and ecosystem level and at the species and population levels, will be severely impacted by climate change over the course of this century, and called Parties to increase knowledge and data on threatened species, review in situ conservation needs for all threatened species, step up efforts to enhance conservation actions at all level (including through a reassessment of existing conservation policies), take stock of the number of species for which conservation/management/recovery plans had

been implemented so to determine further needs in terms of targeted actions, ensure the adequate and adaptive management of Protected areas. A specific recommendation regarding invasive alien species praised the Code of conduct on Horticulture and Invasive Alien Species as a useful tool to prevent the spread of invasive alien plants and suggested to work on the preparation of a similar Code of conduct for Botanic Gardens, later produced by the Group of Experts on Invasive Alien Species.

The findings of this report were taken into account for the preparation of [Recommendation No. 143 \(2009\)](#).

- *Amphibian and Reptiles (see Chapter “d”)*
- *Impacts of Climate Change on Mountain Biodiversity in Europe*

Although the provisions contained in the Bern Convention do not make distinction between mountain habitats and other natural habitats nor between mountain species in relation to other species, both the legal obligations derived from the Convention's articles and the implementation of its programme of work provide a very complete framework for the conservation of mountain's specific biological diversity.

The report “Impact of Climate Change on Mountain Biodiversity in Europe” [[document T-PVS/Inf \(2010\)8](#)] assessed the possible impacts of climate change on Mountain ecosystems, based on the latest information available through surveys, projections and data collection. One of the conclusions was that to improve forecasting the effects of climate warming on mountain biodiversity, the quality of predictive models had to be enhanced, starting by making available data for model parameterization, training and assessment. The report also identified a number of approaches particularly relevant for adaptation, including improving the management of protected areas and connectivity, enhancing existing incentive schemes promoting lower intensity land management and the development of greater landscape heterogeneity, protecting key ecosystem features, reducing anthropogenic stresses, rehabilitating ecosystems that have been lost or compromised, and relocation or translocation of organisms from a location to another. The policy recommendations of the report were included in the text of [Recommendation No. 145 \(2010\) on guidance for Parties on biodiversity and climate change in mountain regions](#).

- *Climate change and wildfires*

The increase in the frequency and impact of wildfires in Europe encouraged the Group of Experts to explore more in details this issue at its meeting in 2010. A report on the “Climate change, wildland fires and biodiversity in Europe” [[document T-PVS/Inf \(2010\)10](#)] stressed that climate change make some areas that are not suffering fires more prone to burning, increasing the effect of fire on ecosystems. The increase of forest area in many European countries, following rural depopulation, also brings an increased risk of fire.

The report also emphasised on the clear relationship between forest fires and climate and weather conditions, as well as on the increased risk of extinction of threatened species due to fires. The report concluded with a series of 16 recommendations for adapting to the climatic change, including taking into account the role of fire in conservation of species and habitats in fire prone areas, prioritising species in need of targeted conservation plans, analysing the vulnerability of the protected areas networks to fire, assessing future needs, including research ones.

The policy recommendations of the report were included in the text of [Recommendation No. 147 \(2010\)](#) on guidance for Parties on wildland fires, biodiversity and climate change.

- *Biodiversity and climate change in European Islands*

European islands are home to many species and habitats of conservation concern, including endemic as well as threatened biodiversity. The Group of experts decided to deal with the possible impact of climate change in these unique ecosystems mainly to address the significant knowledge gaps on this topic, and also to support the work of the Group of Experts on Island biodiversity, set up under the Convention in 2009. The report commissioned by the Group on “Climate change and the biodiversity of European islands” [[document T-PVS/Inf \(2010\)9](#)] stressed the availability of enough evidence to demonstrate that impacts take place and are likely to increase in future. Processes related

to climate change which are particularly relevant in the island context include sea level rise and the possibility of increasing incidence of invasive alien species. Measures available to support the adaptation of biodiversity to climate change for its long-term preservation are similar to those recommended for other areas. However, opportunities for enhancing connectivity beyond individual islands are limited. To overcome this, the report suggested that *ex situ* and translocation measures might be considered for endemic island taxa where no other options exist. Moreover, in the policy recommendations, the report stressed that priority attention should be given to islands in the Mediterranean and Macaronesian region both because of their high endemism and because of expected changes in precipitation patterns, and within these islands to endemic species which were already considered threatened. Once more, further efforts in monitoring and research were recommended.

[Recommendation No. 146 \(2010\)](#) on guidance for Parties on biodiversity and climate change in European islands addressed all the concern raised in the expert's report.

➤ *Management of Protected Areas and Climate change*

The Group has regularly analysed the links between the management of protected areas and climate change adaptation since its setting-up. Protected areas are an issue which benefits of dedicated chapters in all the Guidance documents appended to the Recommendations adopted by the Standing Committee on Climate change adaptation.

However, since 2011, a more in depth work has been initiated under the Group of Experts on Protected areas and Ecological networks, with the preparation of specific "Guidelines on the management of Emerald sites, including climate change adaptation and mitigation measures" [[document T-PVS/PA \(2013\) 7](#)]. The first draft document was presented in 2012 to the Group of Experts on Biodiversity and Climate change, which was invited to comment and complement the work of the independent expert in charge of the preparation of the guidelines. The document is now at a "Second draft" stage and presents a step-by-step approach to planning the most suitable management measure to be put in place for a given Emerald site, also based on current practice in Natura 2000 sites. It further provides recommendations and practical advice on how climate change mitigation and adaptation can be integrated in the management of Emerald sites, already from the planning phase.

c) *Reviewing the definition of what is a "native" species in the context of climate change*

➤ *Recommendation No. 142 (2009) interpreting the CBD definition of invasive alien species to take into account climate change*

In [Recommendation No. 142 \(2009\)](#) the Group of Experts specifically responded to an issue raised in the report prepared by Prof Huntley on "Climatic change and the conservation of European biodiversity: towards the development of adaptation strategies" [[T-PVS/Inf\(2007\)03](#)], namely that of the need to distinguish, when formulating conservation policies and measures, between alien species and species that naturally extend their range, as a result of climatic change, into areas where they were not previously native.

According to the text of the Recommendation the Standing Committee:

Recommends Contracting Parties to the Convention and invites Observer States to:

1. *interpret the term "alien species" for the purpose of the implementation of the European Strategy on Invasive Alien Species as not including native species naturally extending their range in response to climate change.*

Notwithstanding this recommendation, the status of species not previously 'native' to Europe but colonising the continent from adjacent areas, e.g. northern Africa, remained unclear.

➤ *[Recommendation No. 158 \(2012\)](#) on Conservation translocations under changing climatic conditions*

In 2012 the Group of Experts had a deep discussion on the recently adopted IUCN Guidelines for reintroductions and other conservation translocations (presented and adopted at the IUCN World Conservation Congress, Korea, 6-15 September 2012). The guidelines were in fact an updated version of previous guidelines published in 1998 building on lessons learnt since then, as well as on the

progress in knowledge and research. Starting from the principle that introductions carried on for good purposes can turn into ecological disasters, the guidelines invite countries not to translocate species where substantial risks of invasiveness exist, and to explore alternatives or consider exit strategies, including the adaptive management, before carrying out any reintroduction. They take into consideration species/populations or the ecosystem structure, and the ecosystem functioning, and identify the areas of ignorance, where knowledge gaps persist. The guidelines further provide some elements to distinguish between risky and not risky translocations, and are based on the principle of precaution, having in mind that current ability to predict invasiveness is still quite limited.

On the basis of the guidelines, and in view of their endorsement by the Standing Committee, the Group of Experts prepared Recommendation No. 158 (2012), according to which the Standing Committee:

Recommends Contracting Parties to the Convention and invites Observer States to:

1. *Undertake conservation translocations only if aimed to deliver a demonstrable conservation benefit in terms of species viability or ecological function. Translocation should therefore be justified, with development of clear objectives, a long-term or permanent management plan, identification and assessment of risks, and with the specification of clear measures of performance;*
2. *Consider alternative solutions before starting a conservation translocation. In particular, there should be confidence (e.g. via peer-reviewed evidence and in absence of this consideration of best available expert knowledge) that alternative solutions are not more appropriate, including in particular:*
 - a. *Increased habitat availability (area-based solutions);*
 - b. *Management of the species or its habitat (species-based solutions);*
 - c. *Social or indirect solutions, either in isolation or in combination with the above (e.g. habitat restoration and mitigation of pressures);*
 - d. *Doing nothing, which may carry lower risks of extinction compared to those of alternative solutions.*
3. *Carefully assess in advance the full range of possible hazards both during a translocation and after release of organisms, including any transboundary impact, taking into account that any translocation bears risks that it will not achieve its objectives and/or will cause unintended damage;*
4. *Combine proportional risk analysis with conclusions from a feasibility study before deciding whether a translocation should proceed or not. Where possible, formal methods for making decisions based on best evidence should be used. As a general principle, where there is inadequate information to assess that a translocation outside indigenous range bears low risks, the Precautionary Principle should be applied and such a translocation should not be carried out;*
5. *Consider particularly the ecological risks, including the risk of gene escape in any risk analysis;*
6. *Where relevant, prioritise the species or populations to be translocated, based on criteria such as their ecological role, their evolutionary distinctiveness or uniqueness, their role as flagship species, their threatened status, or potential as ecological replacements; where species are extinct, consequent changes in the ecosystem can indicate a need to restore the ecological function provided by the lost species, which can constitute justification for exploring an ecological replacement;*
7. *Follow the revised IUCN guidelines for Reintroductions and Other Conservation Translocations, developed by the IUCN SSC Reintroduction Specialist Group and IUCN SSC Invasive Species Specialist Group when conducting translocations.*

The implementation by Parties of the above Recommendation has not been monitored yet.

d) *Assessing the specific needs of immobile species, such as long living plants, and species with reduced mobility such as amphibians and reptiles, so as to ensure that these are properly taken into account;*

A report analysing “Climate Change Impacts on European Amphibians and Reptiles” [[document T-PVS/Inf \(2008\)11rev](#)] was prepared for the meeting of the Group of Experts and provided information on the sensitivity of amphibians and reptiles to climate factors, as well as examples of modelling distributional changes and their conservation implications. The report concluded that, although some reptile species could “benefit” from climate change, European Amphibians might strongly suffer from the disappearance of wetland habitats. Moreover, in some cases the modelling and biological knowledge appeared to be contradictory and therefore the report recommended to urgently establish some priority research, as many Western European species are likely to be strongly affected by climate change, including species in the Western Mediterranean. Moreover, species-specific climate change mitigation plans should be prepared at least for the species which were expected to be the most affected ones.

Finally, the report stressed that since the differences among species in their phenological response to climate change could considerable influence on their sensitivity to climate change, the urgent intensification of phenological monitoring had to be recommended to Parties.

The findings of this report were taken into account for the preparation of [Recommendation No. 135 \(2008\)](#) on addressing the impacts of climate change on biodiversity.

e) *Considering coastal and marine ecosystems as part of future recommendations on habitat and protected area management*

- *Recommendation No. 152 (2011) and Guidance on marine biodiversity and Climate change*

The potential impacts of climate change on marine biodiversity were on the agenda of the Group of Experts for two consecutive years. In 2011, the Group prepared and forwarded to the Standing Committee [Recommendation No. 152 \(2011\)](#), drawing upon a report prepared under UNEP-MAP-RAC/SPA on the “Impact of Climate Change on Marine and Coastal Biodiversity: current state of Knowledge”.

In fact, the Group considered it urgent to address already some recommendations to the Parties, and instructed the Secretariat to commission a specific guidance document aiming at providing Parties and Observer States with suggestions of concrete conservation actions to be implemented to deliver effectively against the objective of the Recommendation.

The Recommendation targets all European marine biodiversity (including the Arctic) putting a particular emphasis on some of the specific threats on marine biodiversity, including the biodiversity of the overseas territories. Moreover, it addresses some additional constraints, invasive alien species, and emphasises on the role of ecosystem services in carbon sequestration.

According to the text of the Recommendation the Standing Committee:

Recommends Contracting Parties to the Convention and invites Observer States to:

- 1. Increase efforts to develop robust ecological models pertaining not only to species but specifically also to the biotic/abiotic mechanisms and processes regulating marine ecosystems so as to evaluate their resilience to climate change, bearing in mind that uncertainties surrounding the precise nature of future climate change and its impacts on biodiversity should not delay practical conservation action;*
- 2. Develop cross-cutting and sectoral adaptation and mitigation policies and measures to take account of the different climate change scenarios, particularly focussing on mitigating current and potential impacts on already vulnerable marine and coastal areas;*
- 3. Improve the status of marine biodiversity by stepping-up the designation of marine and coastal protected areas, including under the Emerald and the Natura 2000 networks, and ensure that they are managed in a sustainable way;*

4. *Improve the knowledge-base of effects of climate change on marine and coastal biodiversity, including improved understanding of mitigation and adaptation measures to effectively inform the conservation of marine and coastal biodiversity, and ecosystem services. Ensure mechanisms are in place, to facilitate sharing of data and information at national, regional and international levels, making full use, where possible, of already-established mechanisms, including the Global Biodiversity Information Facility;*
5. *Examine how marine invasive alien species may affect the biodiversity and, in particular, how Lessepsian species may affect native Mediterranean biodiversity;*
6. *Continue to engage in the development and application of further guidance to implement the Convention in this regard*

Moreover, at the request of the Group of Experts, the Standing Committee analysed in 2012 the “Guidance on Marine Biodiversity and Climate Change” [document T-PVS/Inf (2012)10] and decided to endorse it as [Annex](#) to Recommendation No. 152 (2011) on marine biodiversity and climate change.

The implementation by Parties of the above Recommendation has not been monitored yet.

2.3 Cooperation with other Council of Europe’s Institutions

Since its creation the Group of Experts has interacted with all the other relevant Convention’s Groups of Experts set under the Convention, particularly on issues like protected areas and ecological networks, invasive alien species, and Island biodiversity. The cooperation with the other Groups has mainly consisted in information sharing and analysis of reports and recommendations of joint concern.

Outside the Convention, the Group has benefitted from presentations and debates around the work of the Congress of Local and Regional Authorities (mainly regarding addressing climate change in cities), of the Parliamentary Assembly (which examined and adopted several reports and Recommendations on climate change and is represented at major global events, particularly in the framework of the UNFCCC), and of the Conference of the INGOs (which has a specific Commission dedicated to Climate Change).

Moreover, in 2010 a dedicated “European Biodiversity Day” was jointly organised at the Council of Europe by the three above institutional bodies to underscore their common objectives. A Joint Declaration entitled “*Working together for Biodiversity, Protection of Natural Areas and the Fight against Climate Change*” was issued on that occasion to mark the political commitment of the main Council of Europe’s institutions towards pursuing their action at Pan-European level to improve the state of biodiversity, protect natural areas, and fight against climate change.

2.4 Climate change and Human Rights

Although the issue of human rights and Climate change is not included in the mandate of the Group of Experts, the matter has been introduced for discussion to the Group in several occasions.

In fact, whereas the European Convention on Human Rights (ECHR), the Council of Europe’s fundamental Treaty, does not guarantee a specific right to a healthy environment, the European Court of Human Rights regularly examines complaints in which individuals argue that a breach of their rights deriving from the ECHR is the result of adverse environmental factors, most of the time related to changing climatic conditions.

The Council of Europe’s Committee of Ministers has also dealt with this problematic and explored, at some point, the possibility of preparing an additional Protocol to the European Convention on Human Rights to grant the right to a healthy environment. However, this option didn’t move forward. Nevertheless, the Council of Europe published a dedicated Manual on Human rights and the environment (2012) in order to contribute to a better understanding of the interconnection between human rights and the environment in the light of the relevant case-law of the European Court of Human Rights. The Manual has been presented to the Group of Experts as well as to the Standing Committee to the Bern Convention.

3. CONCLUSIONS

In its eight years of existence the Group of Experts on Biodiversity and Climate Change has addressed all the issues (and even more) foreseen in the programme of work adopted following its terms of reference.

Besides, the Group has contributed to integrate the issue of Climate change and its impacts on biodiversity in the conservation's work done by the Contracting Parties through the implementation of the Convention, and highlighted the need to mainstreaming climate change concerns, understanding the role of biodiversity, improving knowledge, and developing appropriate monitoring tools.

Through its work, the Group has elaborated a comprehensive set of guidance based on common principles, to assist the Parties in the implementation of their national policies and, thus, in promoting compliance with some of the provisions of the Bern Convention.

In the meantime, extensive work on developing information and support for biodiversity conservation in a changing climate has been (and continues to be) carried out by other dedicated Institutions with which the Group of experts has interacted.

The question of the added value of the future work of the Group of Experts needs to be answered and, where appropriate, with a sound and efficient renewed programme of work.

The latter should also build on the findings of the monitoring exercise which led to the adoption of Recommendation No. 159 (2012) on the effective implementation of guidance for Parties on biodiversity and climate change. The monitoring report emphasised on the persistent gaps in the implementation by Parties of the actions recommended by the Standing Committee, and put forward the need to urgently reverse the trend. The Recommendation also addressed the Group of Experts itself, requesting that the Group federates the work of the Parties, particularly by raising the quality of the reporting, promoting examples of good practices, identifying priority areas of work, and encouraging the use of information and methodologies developed in other fora.

In fact, the Groups of Experts are the main tool that the Convention has for continuing setting standards, investigating and addressing issues relevant to the Convention, identifying new challenges and taking stock of the state of biodiversity. The Groups of experts are the specialised bodies in charge of developing policy proposals and provides the Convention with the technical expertise which makes it a concrete implementation treaty.

Unfortunately, although the interest of the Parties in the work of this Group has remained vivid in the past years, the active participation in its meetings and preparatory work has diminished (see table in Annex I to this document).

For instance, despite a very appreciated meeting in 2012, the Group was unable to elect a Chair or to make suggestions on topics to be further explored due to the very low number of Parties represented.

After deciding to meet only once every two year the Group needs now to analyse to what extent it has fulfilled its mandate as well as to identify, where relevant, the possible tasks to be carried out under a renewed mandate.

ANNEX I**Participants to the meetings of the Group of Experts on Biodiversity and climate change**

Meeting	Venue and Date	Parties	Observers
1 st Meeting	Strasbourg, June 2007	14 Parties (some with more than a representative) ¹	8 Observer organisations
Select Committee	London, United Kingdom, October 2007	5 Parties ² , 2 apologised	
2 nd Meeting	Seville, Spain, March 2008	15 Parties (some with more than a representative) ³	8 Observer organisations
3 rd Meeting	Strasbourg, September 2008	12 Parties ⁴ (some with more than a representative)	7 Observer organisations
4 th Meeting	Strasbourg, July 2009	16 Parties ⁵ (one with more than a representative)	15 Observer organisations
5 th Meeting	Iceland, June 2010	14 Parties ⁶	5 Observer organisations
6 th Meeting	Strasbourg, October 2011	15 Parties ⁷ (one with more than a representative)	8 Observer organisations
7 th Meeting	Strasbourg, October 2012	10 Parties ⁸	7 Observer organisations
8 th Meeting	Strasbourg, June 2014	5 Parties ⁹	6 Observer organisations

¹ Bulgaria, Czech Republic, Denmark, European Union, France, Germany (two Delegates), Iceland (two Delegates), Norway, Spain (two Delegates), Sweden, Switzerland, The Netherlands, Turkey (two Delegates), United Kingdom (host)

² Czech Republic, European Union, Spain, Switzerland, United Kingdom (two Delegates).

³ Albania, Bulgaria, Czech Republic (two Delegates), Denmark, European Union, France, Germany (two Delegates), Iceland, Latvia, Norway, Spain (host), Sweden, Tunisia, Turkey (two Delegates), United Kingdom (two Delegates).

⁴ Albania, Bulgaria, European Union, France (two Delegates), Germany, Iceland, Italy, Norway, Serbia, Spain, Turkey, United Kingdom (two Delegates).

⁵ Albania, Bosnia and Herzegovina, Bulgaria, Czech Republic, European Union, France, Germany, Iceland, Latvia, Norway, Serbia, Slovenia, Spain, Switzerland, Ukraine, United Kingdom.

⁶ Albania, Armenia, Bosnia and Herzegovina, European Union, France, Iceland (host), Latvia, Poland, Spain, Sweden, Switzerland, Ukraine, United Kingdom (two Delegates)

⁷ Albania, Armenia, Bosnia and Herzegovina, Bulgaria, Croatia, European Union, Iceland, Latvia, Norway, Poland, Serbia, Spain (two Delegates) Switzerland, Ukraine, United Kingdom.

⁸ Armenia, Bulgaria, Czech Republic, Denmark, France, Italy, Latvia, Norway, Poland, United Kingdom.

⁹ Albania, Armenia, Norway, Switzerland and Ukraine