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# REPORT FROM THE COMMISSION TO THE COUNCIL AND THE EUROPEAN PARLIAMENT

# The State of Nature in the European Union

Report on the status of and trends for habitat types and species covered by the Birds and Habitats Directives for the 2007-2012 period as required under Article 17 of the Habitats Directive and Article 12 of the Birds Directive

## **1. INTRODUCTION**

## 1.1. BACKGROUND

Europeans live in one of the most densely populated regions of the world that has a long history of land use. This has had a profound impact on nature, resulting in the creation of diverse cultural landscapes that are home to a rich fauna and flora. However, developments, particularly during the 20th century, have also resulted in the large-scale destruction of nature. Between 1900 and the mid-1980s Europe had already lost two thirds of its wetlands<sup>1</sup>, and almost three-quarters of its sand dunes and heaths, through a combination of land-use change, infrastructure developments, pollution and urban expansion.

This loss of natural capital is a major concern. We depend on nature for the food, energy, raw materials, air and water that make life possible. In addition, nature is a central economic driver, contributing to our economy in ways that we are only just starting to fully comprehend and providing services that are crucial for sustaining and creating jobs and growth. It is also a source of inspiration, knowledge and recreation, and an integral part of our cultural heritage.

The Birds<sup>2</sup> and the Habitats<sup>3</sup> Directives are the main legislative instruments for ensuring conservation and the sustainable use of nature in the EU, particularly through the Natura 2000 network of areas of high biodiversity value. The directives are key elements of the EU Biodiversity Strategy, which aims to achieve the EU headline target of *'halting the loss of biodiversity and the degradation of ecosystem services in the EU by 2020 and restoring them in so far as feasible'*. They are also central to delivering EU global commitments under the Convention on Biological Diversity, concluded in Nagoya in October 2010.

## 1.2. Why this report?

Good quality knowledge on the status of and trends for habitats and species protected by the directives underpins the effective implementation of the directives. This report fulfils a legal requirement for the Commission to periodically assess progress in implementing the directives on the basis of monitoring and reporting by Member States.

This report describes the key results for the 2007-12 reporting period, and represents an unprecedented level of collaboration between the Member States and European institutions. A unique database<sup>4</sup> on EU nature, which includes over 17000 data-sets and assessments of individual species and habitats, forms the basis for this report. It contains information on the status of about 450 wild bird species, 231 habitat types and more than 1 200 other species of Community interest. While this is only one component of the extent of biodiversity in the EU, it is a very important sample, reflecting the threats and pressures facing biodiversity across the Member States.

Thanks to more streamlined reporting, it is possible for the first time to present and assess results under both directives together, as well as taking a closer look at the contribution of Natura 2000 to the status of, and trends for, nature. This report is a short summary of

<sup>&</sup>lt;sup>1</sup> Communication from the Commission to the Council and the European Parliament 'Wise use and conservation of wetlands'-COM(1995) 189 final, 29.05.1995.

<sup>&</sup>lt;sup>2</sup> Directive 2009/147/EC of the European Parliament and of the Council of 30 November 2009 on the conservation of wild birds.

<sup>&</sup>lt;sup>3</sup> Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora.

<sup>&</sup>lt;sup>4</sup> Downloadable from the EEA's Biodiversity Data Centre (http://www.eea.europa.eu/themes/biodiversity/dc)

comprehensive and detailed information, and builds on the extensive analyses carried out by the European Environmental Agency (EEA)<sup>5</sup>, which also provides further methodological details.

The results of this assessment will provide vital insight and knowledge to underpin any further actions needed to achieve the objectives of the Birds and Habitats Directives and optimise their contribution to realising the objectives of the EU Biodiversity Strategy for 2020.

It is important to note that, when looking at how the status of certain habitats and species has changed, most were already in a critical state when listed in the directives, which implied that considerable time and effort would be necessary to ensure their recovery. There are also limitations due to a time-series of only two reporting periods under the Habitats Directive.

## 2. STATUS ASSESSMENTS — HOW THEY ARE DONE

## 2.1. Assessing the conservation status of habitats and species (Habitats Directive)

Measures taken under the Habitats Directive aim 'to maintain or restore, at favourable conservation status, natural habitats and species of wild fauna and flora of Community interest'. The directive defines the term 'conservation status' according to several parameters: range, population, habitat area, suitable habitat for species, structure and functions of habitats, and future prospects. These form the basis for data collection. For each habitat and species, each of these parameters is assessed as favourable,<sup>6</sup> inadequate<sup>7</sup> or bad<sup>8</sup> (or unknown) according to an agreed evaluation matrix, leading to an overall conservation status assessment in 4 classes. For habitats and species with an unfavourable status, 4 types of status trends have been identified (Table 1).

Conservation Status Class	Colour	<b>Conservation Status Trend</b> (period 2007-2012)	Colour
Favourable		Improving	
Unfavourable - inadequate		Stable	
Unfavourable - bad		Deteriorating	
Unknown		Unknown	

#### Table 1 — Colour codes for conservation status classes & trends for habitats and species

To allow for meaningful comparison between Member States, Europe is divided into nine biogeographic terrestrial and five marine regions sharing similar ecological conditions (Map 1). Member States, whose territory involves more than one biogeographical region, have

<sup>&</sup>lt;sup>5</sup> EEA report No 2/2015 — State of nature in the EU: Results from reporting under the nature directives 2007-2012.

<sup>&</sup>lt;sup>6</sup> A habitat type or species is prospering (in both quality and quantity) and has good prospects to do so in the future as well.

<sup>&</sup>lt;sup>7</sup> A change in management is required to return the habitat type or species to favourable status but there is no danger of extinction in the foreseeable future.

<sup>&</sup>lt;sup>8</sup> The status of a habitat type or species is far from good or even in serious danger of becoming extinct (at least regionally).

submitted a separate assessment for each biogeographic region for each species and habitat type occurring in their territory.



Map 1 — EU27 biogeographic and marine regions for the 2007-12 reporting period<sup>9</sup>

In addition to the assessments made by Member States, data have been aggregated and assessed at EU biogeographic level by the EEA and its European Topic Centre on Biological Diversity (ETC-BD).

## 2.2. Assessing the population status of and trends for bird species (Birds Directive)

With respect to the Birds Directive, which aims to protect all species of naturally occurring wild birds in the EU, Member States have for the first time provided data on population size and trends in their national territory. The population status was assessed at EU level only. The status classes used for birds are based on the scientific criteria developed to determine risks of extinction that were used to establish Species Red Lists by the International Union for the Conservation of Nature (IUCN). For the population trend of non-secure species that refers to the period 2001-2012<sup>10</sup>, 4 types of population trends have been identified (Table 2).

<sup>&</sup>lt;sup>9</sup> The report refers to EU27 as it relates to the time before the accession of Croatia

<sup>&</sup>lt;sup>10</sup> A 12 year trend period was agreed with Member States as 6 years would be too short a period to detect meaningful population trends.

EU Population Status Class	Colour	Population Trend <sup>11</sup>	Colour
Secure		Increasing	
Near threatened, declining or depleted		Stable	
Threatened (i.e. vulnerable, endangered, critically endangered, regionally extinct)		Fluctuating	
		Declining	
Unknown or not evaluated		Unknown	

Table 2 — Colour codes for EU-population status classes & population trends for bird species

## 2.3. USING TRENDS

The EU-level analysis is based on an aggregation of data submitted by Member States. This means that many positive developments achieved on a local, regional or even national level may no longer be visible on this larger scale. Also, a change from one conservation/population status class to the next requires a significant change in one or more of the individual parameters/criteria, which is difficult to achieve over a period as short as six years. As a result, changes over time (either improvements or deteriorations) that are not strong enough to trigger a change from one status class to another may go unnoticed if only the actual status information is displayed. For this reason, in addition to status information, the report provides information on the conservation status trends for the Habitats Directive features over the period 2007 to 2012 and on the population trends for birds over the period 2001 to 2012. In section 6 on Natura 2000 also long-term population trends for birds (1980-2012) are presented.

# 3. CONSERVATION STATUS AND TRENDS

## 3.1. DATA COMPLETENESS AND QUALITY

There has been a major improvement in the availability, quality and standardisation of information under the Habitats Directive since the last reporting period. The number of '*unknown*' EU-level assessments has been halved (from 18% to 7% for habitats and from 31% to 17% for non-bird species). Knowledge of bird populations and trends has also significantly improved over the past decade, allowing for much better and more targeted conservation action.

However, the level of conformity and the quality of data in national reports varies and could be improved still further through targeted monitoring programmes. Marine habitats and species remain the least known and their monitoring requires significant additional effort. Ensuring greater coherence in this area with the Marine Strategy Framework Directive should improve this situation.

<sup>&</sup>lt;sup>11</sup> Short-term trend period: 2001-2012, long-term period: 1980-2012

#### 3.2. ALL BIRD SPECIES

The status of more than half of all the wild bird species assessed is secure. About 15% are near threatened, declining or depleted and another 17% of the species are threatened (Figure 1). The short-term population trends of the bird species indicate that only 4% are non-secure but increasing, while 6% are non-secure and stable, and further 20% are non-secure and decreasing (Figure 2).





Some bird species appear to be benefiting from targeted conservation measures aimed at adapting land-use practices, especially in Natura 2000 sites. For instance, agri-environmental and land management programmes successfully implemented in Spain, Portugal, Austria, Hungary and Germany have helped the recovery of the Great Bustard *Otis tarda*, a species dependent on open landscapes (grassland, steppes and undisturbed cultivated areas), which is declining elsewhere in Europe. Despite suffering a marked population decline in some EU countries, the White-backed Woodpecker *Dendrocopos leucotos*, which is heavily dependent on old and dead deciduous trees, has increased in Finland, where it has benefited from changing forest management practices in Natura 2000 sites. Several species of birds of prey, including the Carpathian Basin populations of the Eastern Imperial Eagle *Aquila heliaca*, have increased as a result of measures, such as protection of nesting sites and habitat management.

#### 3.3. SPECIES OF COMMUNITY INTEREST (HABITATS DIRECTIVE)

About 23% of EU-level species assessments indicate a favourable status, while 60% are unfavourable, of which 18% are unfavourable-bad. In relation to status trends the 60% of assessments recorded as unfavourable are composed of 4% that are improving, 20% that are stable, 22% that are deteriorating and 14% without a known trend (Figures 3 and 4).



Figure 3 — Conservation status of species



The highest proportions of favourable assessments for the terrestrial biogeographic regions were reported for the Black Sea (32%) and Alpine regions (31%), while the Boreal and Atlantic regions show the highest proportion of unfavourable-bad assessments (29% and 32% respectively). Although there is a smaller number of species assessments in the marine regions, the proportion of unknown assessments is much higher for these (up to 88% in the Macaronesian region). The Baltic Sea region shows the worst status, with 60% of the assessments being unfavourable-bad, followed by the Black Sea Region (33%).

Vascular plants and amphibians show the highest level of favourable assessments with 29% and 28% respectively (Figure 5). Many of the bad status/deteriorating trends are found in species associated with aquatic environments such as rivers, lakes and wetlands. This corresponds with the finding that freshwater habitats mostly have an unfavourable-inadequate conservation status. They are being threatened by human-induced changes to hydrologic

functioning, loss of connectivity, canalisation, removal of sediment, and eutrophication and pollution.

Many species associated with freshwater habitats, such as migratory fish, are declining to a worrying extent. Yet large-scale partnership projects for migratory fish, such as for the Asp *Aspius aspius* in Sweden and the Allis Shad *Alosa alosa* in Germany, have succeeded in strengthening populations by restoring water courses and removing migration barriers through the construction of fish-passes. In Austria, dismantling obstacles to fish migration in the Upper Danube River has improved migration opportunities for the Danube Salmon *Hucho hucho* and other endangered fish species.



Figure 5 — Conservation status of and trends for species per taxonomic group

#### 3.4. HABITAT TYPES

The conservation status of and trends for habitats are worse than for species. This is probably due to a more established tradition of conservation action for species, and the less complex nature and shorter response time for species to recover. Across the EU, 16% of habitat-assessments are favourable, while more than three quarters are unfavourable, of which 30% are unfavourable-bad. In relation to status trends, the 77% assessed as unfavourable are composed of 4% that show improvement, 33% that are stable, 30% that indicate further deteriorations and 10% with an unknown trend (Figures 6 and 7).



Figure 6 — Conservation status of habitats

Figure 7 — Conservation status of & trends for habitats in unfavourable status

While the Atlantic and Boreal biogeographic regions show the highest proportion of unfavourable-bad assessments (both 51%), these two regions also have the highest proportion of improving situations (11% and 10% respectively). For example, while the status of coastal lagoons is still unfavourable-bad in the Atlantic region of Denmark, targeted action under LIFE projects and agri-environmental schemes has helped to restore some coastal lagoons and surrounding coastal meadows. In Latvia, part of the Boreal region, there has been an expansion of, and overall positive trend for, dry sand heaths. These are mostly protected in Natura 2000 and have benefited from LIFE projects and an innovative partnership with the managers of military training sites. The successful restoration of Mediterranean salt meadows in Slovenia, by ensuring traditional activities in saltpans and other management measures, has led to an improvement in the conservation status of this habitat type.

#### 3.5. PROGRESS TOWARDS TARGET 1 OF THE BIODIVERSITY STRATEGY

The primary aim of the EU Biodiversity Strategy is to halt the loss of biodiversity and the degradation of ecosystem services in the EU by 2020 and restore them in so far as feasible. Target 1 of the Strategy sets measurable goals for improving the conservation status of habitats and species protected by the nature directives. Using the 2009 report drawn up under the Habitats Directive and the 'Birds in the EU' status assessment of 2004<sup>12</sup> as benchmarks, the following goals were set:

<sup>&</sup>lt;sup>12</sup> BirdLife International (2004) Birds in the European Union: a status assessment. Wageningen, The Netherlands: BirdLife International.

- 100% more habitat assessments (34%) and 50% more species assessments (25,5%) under the Habitats Directive in a favourable or improved conservation status; and
- 50% more species assessments (78%) under the Birds Directive with a secure or improved status.

These targets were based on an optimal but achievable scenario that assumed full implementation by Member States of measures under the directives to improve conservation status.

Figure 8 illustrates progress toward achieving the set targets. However, in comparing the assessments for different periods, it is essential to ensure as far as possible that the changes observed are genuine and not simply a product of better data availability or different methodology<sup>13</sup>. The key points are:

- There has been no significant change in status for habitat types so far. Assessments previously determined as favourable remain so. No additional habitats achieved favourable conservation status (16%). 4% are now assessed as unfavourable but improving, 30% are still deteriorating and 42% have not changed since 2006<sup>14</sup>.
- The changes between the reporting periods for species are harder to assess. Improvements in data and methodology have significantly influenced the assessments in addition to any real changes in status itself. If this is factored in, it appears that 22% of species, rather than 17%, are likely to have had a favourable status in 2007.. Taking this into account, it can be concluded that the actual improvement in favourable assessments for species has been very small (1-2% more than in 2007). Figure 8 therefore also shows a 'backcast' target showing what the real target would have been had these species been assessed as favourable in 2007. When considering all species assessments, 5% are unfavourable but improving, 22% are still deteriorating and 33% have not changed since 2006.
- The proportion of bird species assessments with a 'secure' status remains 52% (as in 2004). When considering all bird assessments, 8.5% are non-secure but increasing, 2% are non-secure and stable and 20% show further declines.

The overall trend for habitats appears to be broadly similar to the one for species. Those that are already favourable/secure remain stable or are improving further. A small proportion of unfavourable/non-secure assessments is improving, but a larger proportion of those previously determined as unfavourable continues to deteriorate. Unless there is a significant improvement in trends it will not be possible to achieve target 1 by 2020.

<sup>&</sup>lt;sup>13</sup> See the EEA report No 2/2015 — State of nature in the EU: Results from reporting under the nature directives 2007-2012 for more details.

<sup>&</sup>lt;sup>14</sup> Including those that remained 'unknown'



Figure 8 — Progress towards Target 1 of the Biodiversity Strategy ('unknown' situations are not shown)

#### 4. **PRESSURES AND THREATS**

To understand better the factors influencing status and trends, Member States provided structured information on pressures and threats,<sup>15</sup> i.e. the underlying causes impacting on species and habitats. For terrestrial systems (Figure 9), *'agriculture'* and human-induced *'modifications of natural conditions'* are the greatest problems identified for all three groups (birds, other species and habitats). As regards *'agriculture'*, the modification of cultivation practices, grazing by livestock (including the abandonment of pastoral systems/lack of grazing), fertilisation and pesticides are the most frequently mentioned pressures and threats. In relation to *'modifications of natural conditions'*, human-induced changes in hydrological and water-body conditions, modification of hydrographic functioning, reduction of habitat connectivity and water abstraction from groundwater are the most frequently reported factors. This assessment is consistent with that done under the Water Framework Directive, where

<sup>&</sup>lt;sup>15</sup> Member States had to rank each reported threat/pressure in terms of its significance as 'high', 'medium' or 'low'.

agriculture and hydromorphology were identified as the main pressures affecting water bodies.  $^{16}$ 



Figure 9 — Frequency (%) of high ranked level 1 pressures and threats (together) — Terrestrial

As regards marine systems, '*use of living resources*' (primarily fishing and harvesting of aquatic resources but also — to a lesser extent — aquaculture) and '*pollution*' are the main reported pressures and threats (Figure 10).

*'Modification of natural conditions'* (dredging, modification of hydrologic regime and coastline management) and *'disturbances due to human activities'* as well as the impact of climate change on marine birds are also reported as significant.

<sup>&</sup>lt;sup>16</sup> See Blueprint to Safeguard Europe's Water Resources COM(2012) 673 and Commission Communication on the Water Framework Directive and the Floods Directive: Actions towards the 'good status' of EU water and to reduce flood risks COM(2015) 120.





## 5. AN ECOSYSTEM PERSPECTIVE

An analysis of the conservation status of and trends for habitats and species has been made according to their affinity to the ecosystems listed in the typology developed under the EU 'Mapping & Assessment of Ecosystems and their Services' (MAES) initiative<sup>17</sup>. Figure 11 shows the conservation status and trends of habitats and species by type of ecosystem.

## 5.1. TERRESTRIAL ECOSYSTEMS

The conservation status of and trends for habitats and species vary considerably between terrestrial ecosystems. Grasslands and wetlands have the highest proportion of habitats with an unfavourable-bad and deteriorating status. This is also supported by the findings on pressures and threats, which have highlighted that these systems are particularly affected by agriculture and hydrological changes.

<sup>&</sup>lt;sup>17</sup> <u>http://biodiversity.europa.eu/maes</u>



Figure 11 — Conservations status (CS) of and trends for habitats per ecosystem type (MAES) (Number of assessments in brackets)

Whereas the situation relating to these two ecosystems is unfavourable across all biogeographic regions, case studies show that improvement is possible if appropriate, targeted measures are taken.

• Grasslands

Natural and semi-natural grasslands are among the most species-rich ecosystems in the EU. Formerly characterised by extensive management systems, they have undergone a major decline in area in recent decades. About 49% of EU assessments for the 45 grassland habitat types of Community interest are unfavourable-bad. Moreover, almost 50% of grassland-related birds are declining and the conservation status of other species is mostly unfavourable.

The current pressures on grasslands include intensification of use, unsympathetic cultivation practices, conversion to other land-use and abandonment. In Lithuania, two thirds of evaluations of grassland habitat types show deteriorating trends, while all of those in the United Kingdom have an unfavourable-bad conservation status. Likewise, widespread grassland-dependent birds such as the Corncrake *Crex crex* and Lapwing *Vanellus vanellus* are in major decline in the EU.

Nonetheless, where appropriate EU and national measures have been put in place, it has been possible to reverse negative trends. In Estonia for instance, large areas of semi-natural grasslands have been restored with EU support under the European Agricultural Fund for Rural Development, the European Regional Development Fund and the LIFE instrument. This has made the adaptation of mowing practices on existing meadows possible as well as the re-establishment of extensive management measures for abandoned meadows. Initially piloted in Natura 2000 sites, this has been applied more widely to the sustainable management of meadows.

• Wetlands

Wetlands, including mires, bogs and fens, are among the most threatened ecosystems in Europe, having been subject to major losses in recent decades. While they only comprise about 2% of the EU's territory, and 4.3% of the Natura 2000 area, they are highly important for a wide variety of species. Most wetland habitat types are protected in the EU.

The conservation status assessments show that 51% of habitats related to wetlands have unfavourable bad status. Human-induced changes in hydrology (such as drainage) are by far the most significant pressure. In Ireland for instance, all 'bogs, mires and fens' habitat types have an unfavourable conservation status and bogs continue to deteriorate due to peat extraction and drainage. As a consequence of large-scale wetland deterioration across the EU, populations of some species that are highly dependent on wetlands, such as the Eurasian Curlew *Numenius arquata* or the European Fire-bellied Toad *Bombina bombina*, are declining. However, these trends can be reversed. In Belgium for instance, nearly all evaluations of types of wetland habitats show a stable or improving trend thanks to numerous large-scale projects and continuous efforts in Natura 2000 sites.

Wetland-dependent species such as the Bittern *Botaurus stellaris* have shown significant recovery of populations when subject to conservation measures targeted at their habitats. This has also been the case in the United Kingdom, with support from the LIFE programme.

# 5.2. MARINE ECOSYSTEMS

Conservation status and trends also vary considerably for marine ecosystems (Figure 11). However, due to the comparatively low number of marine features covered by the Habitats Directive and the high level of 'unknowns', the results are less conclusive.

61% of bird species associated with marine ecosystems are secure. About one quarter is threatened, underlining the impact of threats such as predation and disturbance at colonies, fisheries by-catch and marine pollution.

Due to the complexity of working in the marine environment and the relative lack of data, the protection of marine features and establishing the Natura 2000 network (particularly offshore) have made less progress. Measures aimed at better and more sensitive management of sites and prohibiting damaging activities can, however, translate into rapid improvements. In Ireland for example, the recent positive trend in conservation status of the alga Maerl *Lithothamnium coralloides* is linked to the protection regime of the Habitats Directive. Some threatened seabirds have also benefited from conservation measures in the Natura network:

The Roseate Tern *Sterna dougalli* population has significantly increased in the EU thanks to the protection and management of breeding sites, including the control of predators.

## 6. THE ROLE OF NATURA 2000

The Natura 2000 network, comprising Special Protection Areas (SPAs) under the Birds Directive and Special Areas of Conservation<sup>18</sup> (SACs) under the Habitats Directive, embraces areas of high biodiversity value. It now covers more than 18% of the EU's land and 4% of Europe's seas. It is the main instrument of the nature directives for creating a good/favourable status for species and habitats. In the current reporting period, the number of sites increased by 9.3% (SACs) and 12.1% (SPAs), while the area covered by the network increased by 41.2% (SACs) and 28.9% (SPAs). Most of these increases relate to Bulgaria and Romania joining the EU in 2007, and to the marine component of the network.

While there has also been important progress in designating SACs by some Member States and further work on management plans, the full potential of the network has still to be realised. This is because the necessary conservation measures for the sites have not yet been fully introduced, e.g. only 50% of sites were reported as having comprehensive management plans. It also appears that investment has been insufficient to achieve this objective in some Member States<sup>19</sup> and that the opportunities offered by, for example, the Common Agricultural Policy, the Common Fisheries Policy and the EU Regional Policy have not been fully realised.

## 6.1. CONTRIBUTION OF THE NETWORK TO CONSERVATION STATUS (HABITATS DIRECTIVE)

The network covers, to a varying degree, the habitat types listed in Annex I and species listed in Annex II of the directive, for which SACs are designated. In order to correlate Natura 2000 coverage with status and trends, assessments have been divided into three groups based on the extent to which the habitat types and species are represented in Natura 2000, i.e. cover above 75 % (high), 35-75 % (medium) and below 35 % (low) (see Figure 12).

<sup>&</sup>lt;sup>18</sup> Sites under the Habitats Directive are proposed by the Member States and initially known as 'Sites of Community Importance' (SCIs) before being formally designated as SACs — data in this report refer to both.

<sup>&</sup>lt;sup>19</sup> Financing Natura 2000 — Investing in Natura 2000: Delivering benefits for nature and people, SEC(2011) 1573 final, 12.12.2011.



Figure 12 — Trends in the conservation status of Annex I habitats assessed by MS as unfavourable (for habitats with more than 75%, 35-75% and less than 35% of their area covered by Natura 2000)

The overall conservation status of habitats and species cannot be attributed to Natura 2000 coverage. However, for both habitats and species with unfavourable status, the trend in conservation status<sup>20</sup> is closely associated with Natura 2000 coverage. The proportion of assessments with a deteriorating status is higher in situations of low coverage (0-35%) than where there is high (75-100%) coverage. By contrast, those with relatively higher Natura 2000 cover are more likely to show stable assessments. This underlines the crucial role of the network in stabilising conservation status.

An interesting example can be found in Poland, where 80-90% of the threatened calcareous grassland habitat type 6210 is covered by the network. This habitat was often abandoned or poorly managed in the past. It has recently witnessed an improvement in status thanks to the implementation of conservation measures in Natura 2000 sites that included removing shrubs, mowing and in some cases extensive grazing. These actions, largely funded by the European Regional Development Fund, have led to a gradual increase in the area of this grassland habitat as well as reduced fragmentation. This in turn has helped the recovery of the endemic spotted souslik *Spermophilus suslicus*, the population of which is almost entirely located in Natura 2000 sites. It is a clear example of how human activities, also with an economic purpose, if implemented sustainably can be beneficial for the conservation of habitats and species.

#### 6.2. TRENDS FOR SPECIES DEPENDENT ON THE SPA NETWORK (BIRDS DIRECTIVE)

A higher proportion of Annex I bird species, which have the designation of SPAs as a key measure, show increasing breeding population trends (Figure 13) compared with species that are not included in this Annex. This suggests that targeted conservation action for these

 $<sup>^{\</sup>rm 20}$  and also short-term population trend for species.

species, in particular the management of SPAs, is having a positive effect on their populations. Annex I species and subspecies for which EU Species Action Plans had been developed, and which have priority for funding under the LIFE programme, show an even higher proportion of increasing population trends.

Approximately 35% of Annex I species that have been decreasing over the long term show increasing or stable trends in the short-term. This is clearly a sign of stabilisation and in some cases of improvement in their status. However, 45% of those that are declining in the long term are also declining in the short term, suggesting that considerable attention and effort is still required to reverse these declines.



Figure 13 — Long-term (since 1980) breeding population trend (%) by Annex

The Eurasian Crane *Grus grus*, an emblematic Annex I species, whose breeding, roosting and wintering areas receive special protection from Natura 2000, and which has been subject to many targeted conservation actions, has experienced a remarkable recovery in numbers and range since the Birds Directive entered into force at the beginning of the 1980s.

## 7. CONCLUSIONS

This is the second conservation status assessment under the Habitats Directive, enabling the first comparative EU level assessment to be made. An added advantage is that significant improvements have been made in the knowledge on the status of and trends for protected species and habitats since the last reporting period. Moreover, there has been a similar

reporting exercise under the Birds Directive, enabling a comprehensive status and trends assessment of all species covered by EU nature legislation to be made for the first time.

Some species and habitats covered by the legislation are showing signs of recovery, as illustrated by success stories in different parts of Europe. There are clear indications that the Natura 2000 network is playing a major role in stabilising habitats and species with an unfavourable status, especially where the necessary conservation measures have been implemented on an adequate scale.

However, the overall status of species and habitats in the EU has not changed significantly in the period 2007-2012, with many habitats and species showing an unfavourable status and a significant proportion of them deteriorating still further. Much stronger conservation efforts are therefore needed to achieve the EU 2020 biodiversity Target 1. Some species groups, such as freshwater fish and habitats such as grasslands or wetlands, are of particular concern. Significant pressures and threats from changes in agricultural practices and continuing changes in hydrological conditions, as well as over-exploitation and pollution of the marine environment, need to be tackled to reverse these trends.

The effective management and restoration of the Natura 2000 areas is central to achieving the objectives of the directives. Despite progress in establishing the network, insufficient progress has been made in introducing conservation objectives and measures that fully respond to the needs of the protected habitats and species. Only 50% of sites were reported as having comprehensive management plans by end 2012. EU funding instruments, which provide opportunities to support the management and restoration of Natura 2000, were not sufficiently used<sup>21</sup>.

The conservation status of species and habitats can be improved through targeted action, as has been demonstrated, for example, by the LIFE Nature programme and by tailored agrienvironmental actions co-funded by the European Agricultural Fund for Rural Development. The Commission is working with Member States and stakeholders at EU biogeographic level to promote the exchange of experience and good practice on management and restoration. Such improvements will continue to reap significant economic benefits from the extensive ecosystem services provided by the Natura 2000 Network. Benefits, estimated at between  $\notin$ 200-300 billion for terrestrial sites alone, include carbon storage, mitigation of natural hazards, water purification, health and tourism<sup>22</sup>. These should continue to encourage further investment in the network.

In the framework of REFIT (the Commission's Regulatory Fitness and Performance programme), the Commission recently initiated a 'fitness check' of the nature directives to assess whether these directives are fit for purpose. The fitness check will look at a wide range of issues related to the effectiveness, efficiency, coherence, relevance and EU added value of the legislation. This State of Nature report will provide important input to the fitness check, especially as regards the effectiveness of the legislation. The results will also feed into the mid-term review of the Biodiversity Strategy.

<sup>&</sup>lt;sup>21</sup> Financing Natura 2000 — Investing in Natura 2000: Delivering benefits for nature and people, SEC(2011) 1573 final, 12.12.2011.

<sup>&</sup>lt;sup>22</sup> Estimating the Overall Economic Value of the Benefits provided by the Natura 2000 Network, IEEP (Dec. 2011)