





Natural capital

Common birds and butterflies



Indicator	Indicator past trend		Selected objective to be met by 2020	Indicative outlook of the EU meeting the selected objective by 2020
Abundance and distribution of selected species (common birds and grassland butterflies)	<p>EU</p> <p>Birds</p>  <p>Butterflies</p> 	<p>EEA</p> <p>Birds</p> 	Meet the headline target of the EU Biodiversity Strategy: to halt the loss of biodiversity and the degradation of ecosystem services	
It is highly unlikely that the objective will be achieved by 2020 given the continuing declining trends apparent for certain groups, such as grassland butterflies and farmland birds				

The Seventh Environment Action Programme (7th EAP) states that, by 2020, the loss of biodiversity and the degradation of ecosystem services should be halted. Population trends in common birds and grassland butterflies are among key indicators in monitoring this. Between 1990 and 2013, common bird populations decreased by around 15 % in the EU; the decline of common farmland birds was more pronounced at 34 %, whereas common forest birds declined by 13 %. A significant decline of 30 % is also apparent for grassland butterflies, which are species with a high sensitivity to habitat fragmentation and degradation.

The main reasons for the continued decline in these species' populations are primarily changing rural land use, intensification and specialisation of farming or land abandonment in areas with natural constraints.

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Since 1990, there has been a continuing marked downward trend in populations of farmland birds and grassland butterflies in the EU. Although the decline of all common birds and forest birds has largely levelled off since 2000, no trend towards recovery has been observed for the index, which signifies that loss of biodiversity has not been halted. Based on these historical trends and despite the increased introduction of biodiversity measures into the Common Agricultural Policy and the efforts already captured under the Nature (Birds and Habitats) Directives and the EU Biodiversity Strategy, it is highly unlikely that the objective will be achieved by 2020.

For further information on the scoreboard methodology please see Box I.1 in the EEA Environmental indicator report 2016

Setting the Scene

The 7th EAP (EU, 2013) contains the objective of halting, by 2020, the loss of biodiversity and the degradation of ecosystem services, as well as restoring them as far as feasible. The EU is losing biodiversity. Biodiversity is not only important in its own right, it also provides society with a wide range of ecosystem services upon which we depend, such as food, freshwater, pollination etc. This briefing examines trends in populations of common farmland and forest birds, and grassland butterflies. These are considered by the scientific community to be excellent barometers of the overall biodiversity and of the health of ecosystems, as they occur in many habitats and are sensitive to environmental change. For aspects of legally protected biodiversity and habitats, see the briefings on EU protected species (AIRS_PO1.7, 2016)¹ and habitats (AIRS_PO1.8, 2016).²

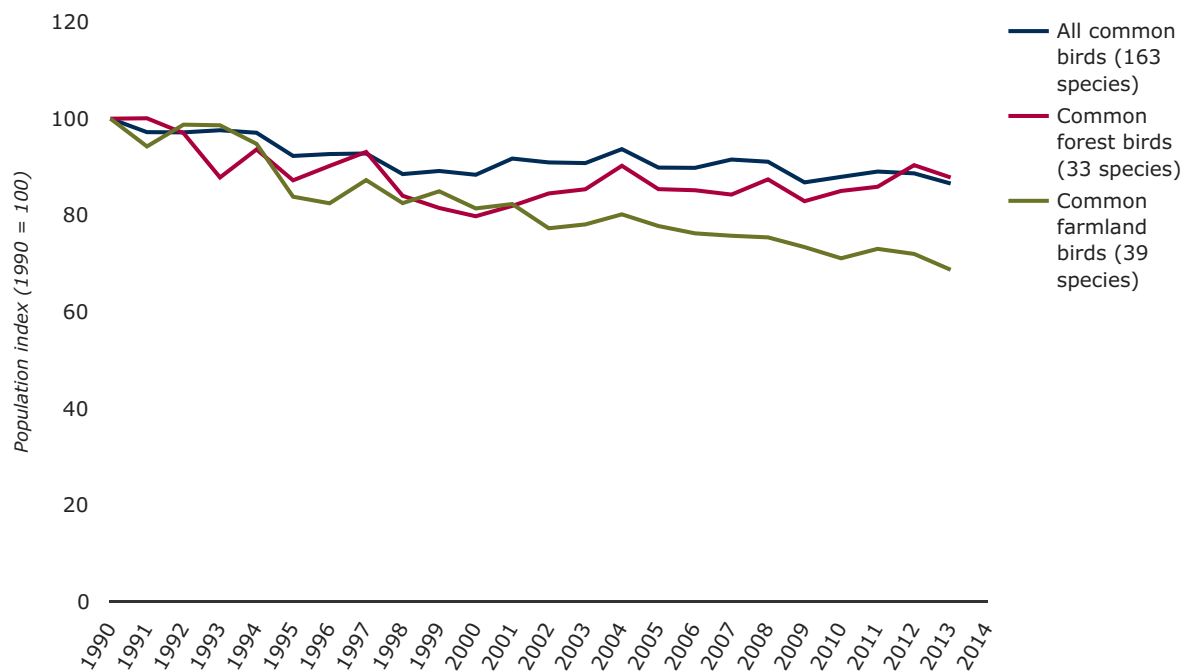
Policy targets and progress

Halting and reversing the loss of biodiversity and the degradation of ecosystem services by 2020 is the central aim of the EU Biodiversity Strategy (EC, 2011). This includes preserving 'common biodiversity' such as common birds and grassland butterflies. This aligns with the 7th EAP objective of halting, by 2020, the loss of biodiversity and the degradation of ecosystem services.

Since 1990, common bird populations have decreased by around 15 % in the EU; the decline of common farmland birds was more pronounced at 34 %, whereas common forest birds declined by 13 %. The trends remain very similar when Norway and Switzerland, two other EEA member countries for which data are available, are also included in the indicator coverage; for more information see the EEA indicator: abundance and distribution of selected species (EEA, 2016).

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Figure 1. Long term trends for common bird species in 23 EU countries*

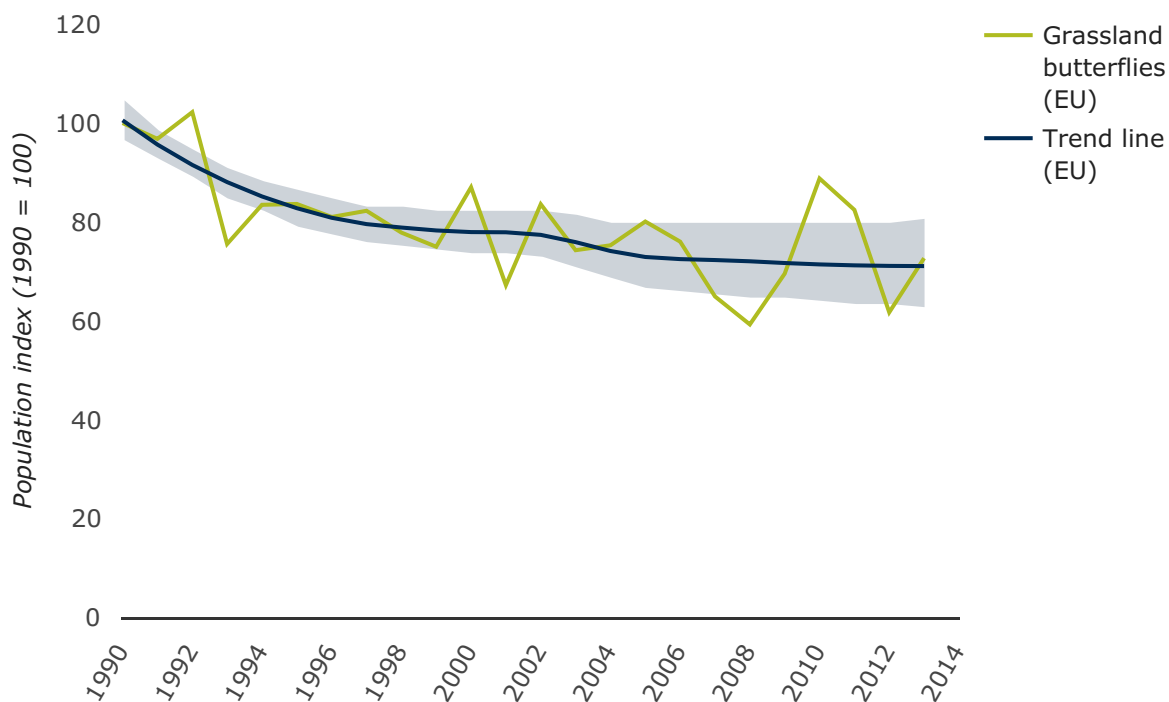


Data sources: a. EBCC. Common Birds in Europe, population index b. Birdlife International
 c. Royal Society for the Protection of Birds d. Statistics Netherlands
 e. EEA – Indicator CSI050

Note: * 23 EU Member States = all EU Member States except Croatia, Lithuania, Luxembourg, Malta and Romania.

The negative trend in farmland-related biodiversity is confirmed by the population index for grassland butterflies in Figure 2 (species with a high sensitivity to habitat degradation and loss), for which a significant decline of 30 % has been observed since 1990.

Figure 2. Long term trends for grassland butterflies in 14 EU countries



Note:

The shaded area represents 'confidence limits'.

Data

sources:

a. BCE. [European Butterfly Indicator for Grassland species](#) b. [Statistics Netherlands](#)
 c. EEA – [Indicator CSI050](#)

The long-term trends for common farmland birds and forest birds, as well as grassland butterflies, as shown in Figures 1 and 2, demonstrate that the EU has experienced a major decline in biodiversity associated with agro-ecosystems and grasslands (EEA, 2015). This was primarily due to habitat change — including loss, fragmentation and degradation — of natural and semi-natural habitats. The habitat change was mainly caused by homogenisation and loss of habitat as a result of agricultural intensification and land abandonment, intensely managed forests and some loss of habitats to urbanisation (EEA, 2015).

This negative trend shows no sign of changing, despite progress in enacting and implementing European policies (such the Birds and Habitats Directives (EU, 1992 and 2009) and the Water Framework Directive (EU, 2000)), as well as the environmental measures within the Common Agricultural Policy (CAP). Unfortunately, to date the CAP has not influenced agricultural practices enough to reduce overall loss of biodiversity. The outcomes of the latest Habitats Directive reporting round demonstrate the lack of any substantial progress in the conservation status of grasslands. The vast majority of assessments of the conservation status of agricultural

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habitats, as well as of woodland and other forest habitats, remain unfavourable (over 86 % and 80 %, respectively).

The environment-related elements set out in the EU reform package, in particular for EU agriculture and cohesion policies, backed by the initiatives for greening the EU budget under the Multi-Annual Financial Framework 2014–2020, are designed to support those objectives. Greening of the CAP aims to promote environmentally beneficial agricultural and forestry practices such as crop diversification, the protection of permanent grassland and grazing land, and sustainable agroforestry. Rural Development Programmes 2014–2020 address restoring, preserving and enhancing ecosystems through payments to cover the cost of farmers adopting environment- and climate-friendly land management practices.

The mid-term review of the EU Biodiversity Strategy comprehensively assessed progress towards the headline target (and towards all six targets) and concluded that the EU is not on track to meet the objective of halting biodiversity loss and the degradation of ecosystem services by 2020 (EC, 2015). The continuing declining trends apparent for regularly monitored groups, such as grassland butterflies and farmland birds, despite environmental measures implemented so far, illustrate well that it is highly unlikely that the objective will be achieved by 2020.

Outlook beyond 2020

It is difficult to forecast how soon biodiversity, as illustrated by the abundance of bird and grassland butterfly populations, will recover, as their state is influenced by a complex combination of environmental factors and policy measures. Substantial positive impacts of the CAP reform and the measures anticipated under the Multi-Annual Financial Framework 2014–2020 on common species associated with farmland might become visible in the 2020–2030 period, as long as these policies are implemented thoroughly and on a large scale throughout the EU. On the other hand, other factors that could adversely impact the outlook beyond 2020 include the negative impact of climate change on biodiversity and ecosystems, particularly on these specialist species groups that are dependent on non-intensive agriculture and forest ecosystems. The increased competition for land could also intensify agricultural production in the EU, through land take via urbanisation (AIRS_PO1.3, 2016)³, as well as for the production of renewable energy and biofuels (AIRS_PO2.6, 2016)⁴.

About the indicator

This indicator shows trends in the abundance of common birds and grassland butterflies over time across their European distribution. It is an index indicator (relative values, 1990 set to 100). Birds and butterflies are excellent barometers of the overall health of ecosystems, mainly because they occur in many habitats and are sensitive to environmental change. The data collection methods are scientifically sound, and birds and butterflies are familiar groups of species well known to the public. Common birds are monitored in 25 European countries (23 EU Member States (all EU-28, except Croatia, Lithuania, Luxembourg, Malta and Romania) plus Norway and Switzerland). Butterfly monitoring has a more limited geographical coverage, with data available from 14 EU countries (Belgium, Estonia, Finland, France, Germany, Ireland, Lithuania, Luxembourg, Poland, Slovenia, Spain, Sweden, the Netherlands and the United Kingdom).

Footnotes and References

EC, 2011, Communication from the Commission to the European Parliament, the Council, the Economic and Social Committee and the Committee of the Regions 'Our life insurance, our natural capital: an EU biodiversity strategy to 2020' (COM(2011) 244 final).

EC, 2015, Report from the Commission to the European Parliament and the Council 'The mid-term review of the EU Biodiversity Strategy to 2020' (COM(2015) 0478 final).

EEA, 2015, SOER 2015 — The European environment — State and outlook 2015, European Environment Agency (<http://www.eea.europa.eu/soer>) accessed 15 November 2016.

EEA, 2016, 'Abundance and distribution of selected species (SEBI 001', European Environment Agency (<http://www.eea.europa.eu/data-and-maps/indicators/abundance-and-distribution-of-selected-species/abundance-and-distribution-of-selected-4>) accessed 15 November 2016.

EU, 1992, Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora (OJ L 206, 22.7.1992, p. 7–50).

EU, 2000, Directive 2000/60/EC of the European Parliament and of the Council of 23 October 2000 establishing a framework for Community action in the field of water policy (OJ L 327, 22.12.2000, p. 1–73).

EU, 2009, Directive 2009/147/EC of the European Parliament and of the Council of 30 November 2009 on the conservation of wild birds (OJ L 20, 26.1.2010, p. 7–75).

EU, 2013, Decision No 1386/2013/EU of the European Parliament and of the Council of 20 November 2013 on a General Union Environment Action Programme to 2020 'Living well, within the limits of our planet', Annexe A, paragraph 28a (OJ L 354, 28.12.2013, p. 171–200).

AIRS Briefings

1. AIRS_PO1.7, 2016, EU protected species, European Environment Agency .
2. AIRS_PO1.8, 2016, EU protected habitats, European Environment Agency.
3. AIRS_PO1.3, 2016, Urban land expansion, European Environment Agency.
4. AIRS_PO2.6, 2016, Renewable energies, European Environment Agency .

Environmental indicator report 2016 – In support to the monitoring of the 7th Environment Action Programme, EEA report No30/2016, European Environment Agency