EU CAP Network
Thematic Group on Landscape Features and Biodiversity

Importance of landscape features to promote biodiversity and habitat connectivity

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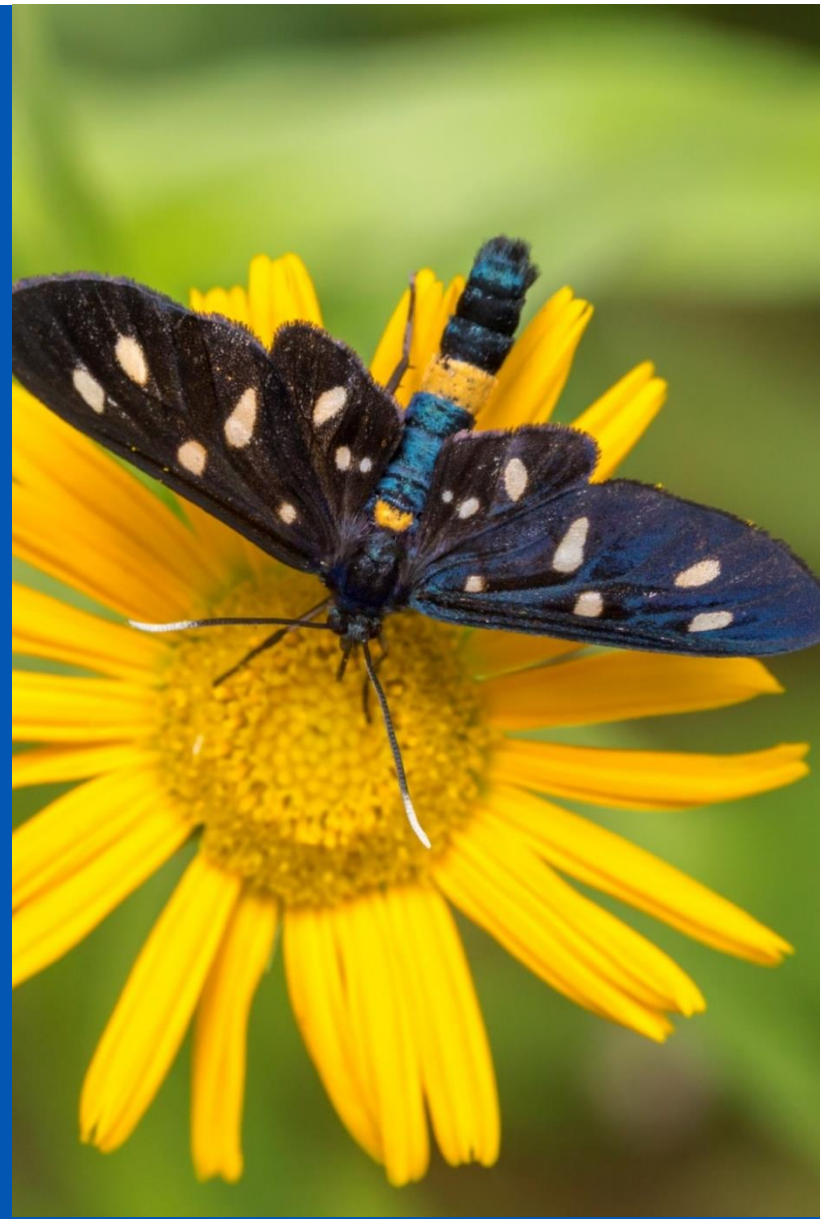
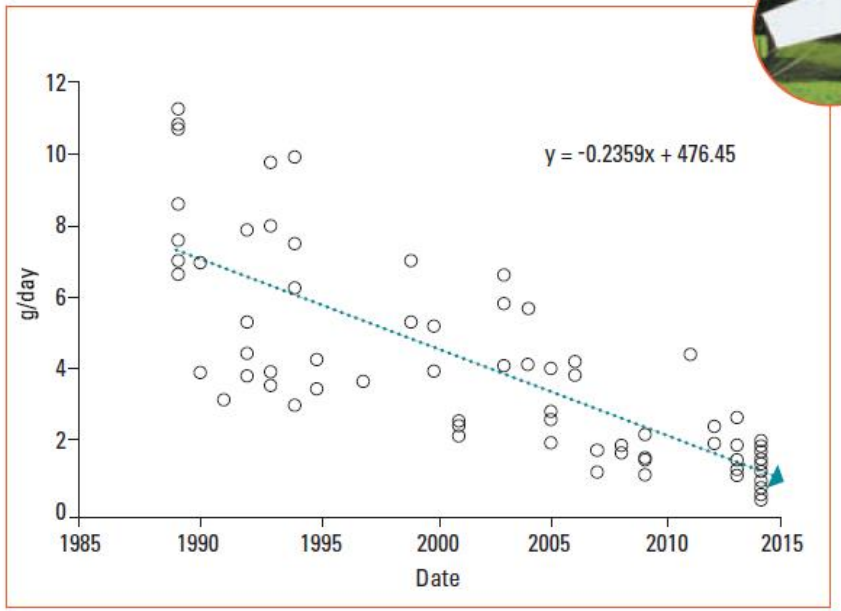
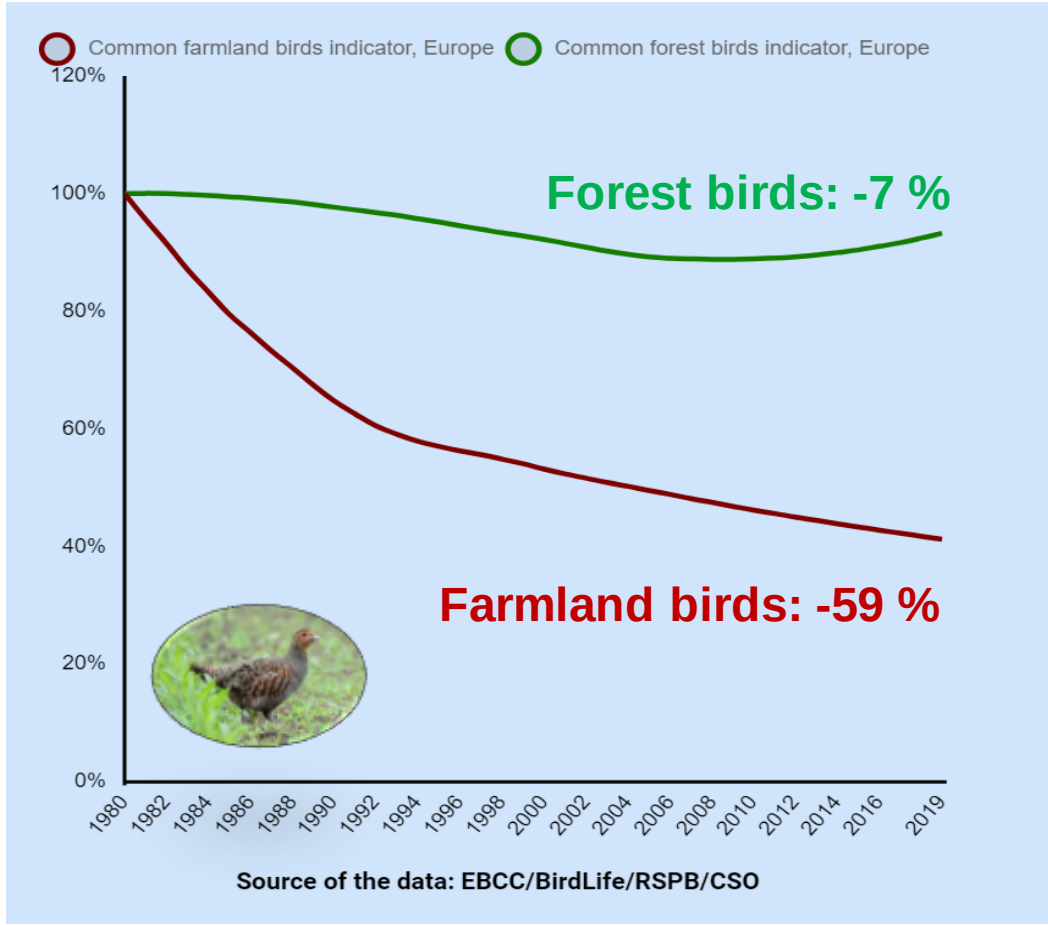
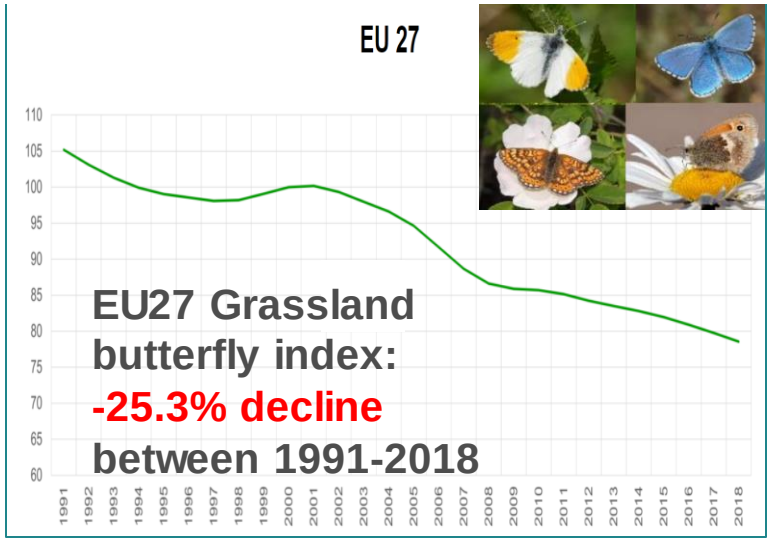


Biodiversity in agro-ecosystems is rapidly declining



>75% decline over 27 years in total flying insect biomass in German protected areas
(Hallmann et al. 2017)





Additional studies from DK, NL, UK

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Habitat loss and fragementation are key drivers for biodiversity decline on farmland

Habitat loss

- Huge amount of landscape features have been lost in the EU in the past decades due to land consolidation and intensification of farming
  (e.g. 350,000 ha of hedges and trees on agricultural land disappeared between 1960 and 1990 in France [INRA])
- A minimum of 10 - 20% non-productive areas and landscape features between required to halt and reinstall biodiversity loss in agriculture
- 10% is the absolute minimum of what is needed

Habitat fragmentation

- constrains movements of species between habitats
- reduces the capacity of habitats and species to adapt to climate change

Biodiversity value depends on the type, management and location of LF

- **Types of LF**
  - High value: Hedges, trees, ponds, stone walls, vegetation strips, multi-annual fallow land
  - Low value: Catch crops / nitrogen fixing crops, annual fallow land
- **Management**
  - Species composition
  - Fertilisation, pesticides
- **Location**
  - Connectivity, proximity to nature reserves

Co-benefits of landscape features

- Pollination
- Pest antagonists
- Soil fertility: erosion prevention, water & nutrient retention, filtration
- Climate adaptation: wind, water
- Climate mitigation: carbon sequestration

Policy framework

- **EU Biodiversity Strategy for 2030**
  - at least 10 % of EU agricultural area with high-diversity landscape features
- **Proposed Nature Restoration Regulation**
  - Binding target on the share of agricultural land with high-diversity landscape features
  - Increasing trend at national level until 2030, and every three years thereafter until satisfactory levels are reached (to be defined until 2030)
  - MS to prepare national restoration plans; Commission will assess with 10% EU target
- **Pollinator Initiative**
  - Revision January 2023

Standardised monitoring

- Copernicus remote sensing: small woody feature
- LUCAS
- EMBAL: **European Monitoring of Biodiversity in Agricultural Landscapes**
- Biodiversity monitoring: Birds, pollinators (EU-PoMS)

➢ Information about location, quality and quantity of LF

➢ Develop targeted measures and evaluate impact

Thank you!

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Monitoring and typology

Table 7. Number (n) and percentage (%) of hits for each LF subtype (or synonym) in the INSPIRE search results

Functional LF class*	LF search term**	Number of datasets***		MS with such datasets at the national or regional level
		n	%	
Any	Landscape features (in general)	15	20%	AT, BE, CZ, DE, EE, EL, IT, SE, SK
	Fragments of (semi-) natural vegetation	2	3%	FI, IT
Woody	Individual trees, lines of trees	15	20%	DE, IT, SK
	Groups of trees/ shrubs, field copses	4	5%	DE, IT, SK
	Hedgerows	8	11%	BE, DE, IT, SK
	Shelterbelts, windbreaks	0		
	(Small) riparian forests	2	3%	DE
Grassy	(Unploughed) grass strips, buffer strips	0		
	Field margins	0		
Wet	Ditches	4	5%	EE, ES, LV
	(Small) streams	12	16%	CY, DE, DK, FI, IT
	(Small) ponds	9	12%	BE, DE, DK, EE, IT, PT, SK
	(Small) wetlands	17	23%	BE, DE, DK, EE, IT, LT, LV, NL, SI, SK
Stony	Stone walls	0		
	Clearance cairns	0		
	(Small) rock outcrops, glacial boulders	0		
Total		75	100%	AT, BE, CY, CZ, DE, DK, EE, EL, ES, FI, IT, LT, LV, NL, PT, SE, SI, SK

Information fragmented and incomplete (JRC report)