Observatory monitoring framework – indicator data sheet

Environmental impact: Biodiversity

Indicator DE7: Plant diversity in the wider countryside

This indicator presents an index of the number of different plant species per standard survey plot to give an indication of species richness for a range of broad habitats, as defined by the Countryside Survey, between 1990 and 2007.

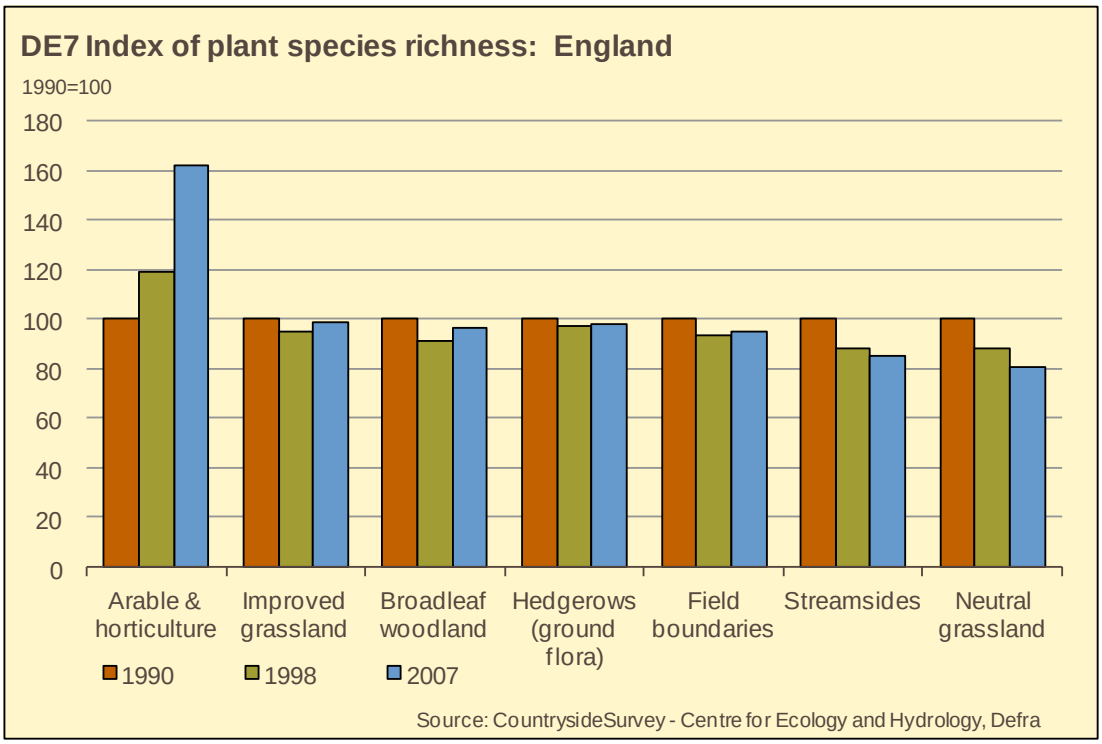

Chart DE7 shows the index of plant species richness for England from 1990 to 2007.

- There was a statistically significant increase in plant species richness (average number of species per standard plot) in arable and horticultural land in both the longer term (62%) between 1990 and 2007 and shorter term (26%) between 1998 and 2007.
- There has been little or no overall change in species richness in improved grassland, broadleaf woodland and ground flora hedgerow habitats between 1990 and 2007 or between 1998 and 2007.
- There were statistically significant declines in plant species richness in the field boundaries, streamsides and neutral grassland habitats of 5%, 15% and 19% respectively between 1990 and 2007. The declines were also statistically significant between 1998 and 2007 for streamsides and neutral grassland habitats.

This indicator was published in January 2012. It will be updated when data become available from the next Countryside Survey.

Further information and contact

Background information can be found in the accompanying fact sheet.

For further queries or information on this indicator contact Defra's Observatory team on +44 (0) 1904 455229 or email Observatory@defra.gsi.gov.uk

Observatory monitoring framework – indicator fact sheet

Environmental impact: Biodiversity

Indicator DE7: Plant diversity in the wider countryside

Indicator	Plant diversity index
Data	Diversity of plants in seven habitat types
Geographic coverage	England
Years	1990, 1998 & 2007
Source	Countryside Survey 2007, Centre for Ecology & Hydrology (CEH)
Origin of data	Countryside Survey 2007
Updates	This indicator will be updated once data becomes available from the next Countryside Survey
Background	Today's countryside has been shaped and maintained largely by agriculture. Wild plants in agricultural fields and field boundaries provide important food sources and cover for farmland birds and other species which have declined over recent years. Hedgerows and arable field margins are priority habitats in the UK Biodiversity Action Plan.
Statistical & methodological information	The Countryside Survey includes a random sample of vegetation plots located in arable and horticultural fields, agricultural grasslands, woodlands and associated boundary habitats in England. The indicator presents an index of the number of different plant species per standard survey plot to give an index of species richness for 1990, 1998 and 2007. For each broad habitat type, the data are converted to an index (1990 values are set at 100) to compensate for the difference in plot size and species richness between habitats. Species richness is presented as an index in the indicator so that the percentage change between the years in plots of different size can be compared. Hedgerow data differ slightly from those published in the Countryside Survey report for England, which include data from 1978 and which are re-calculated to account for the different sample sizes in earlier years.
Further information	This is also a Biodiversity Strategy Indicator: http://www.defra.gov.uk/statistics/environment/biodiversity/england-biodiversity-indicators/9-plant-diversity-in-the-wider-countryside/ Information on Countryside Survey can be found at: http://www.countrysidesurvey.org.uk/