

BIODIVERSITY

Communications Toolkit

Life in Scotland

This section provides you with some generic facts and figures about the nature of Scotland's biodiversity.

Information on natural heritage trends can be found in Scottish Natural Heritage's series of trend publications. You can view them at www.snh.org.uk/trends.

You can also view current trends for species and habitats through the Biodiversity Action Reporting System (BARS) at www.ukbap-reporting.org.uk/status/uk.asp.

- Scotland has 90,000 species and counting, 242 of which are species of birds.
(Source: www.scotland.gov.uk/Publications/2004/05/19366/37243)
- Scotland has 242 species of birds, 63 different mammals and 10 species of reptiles and amphibians.
(Source: Scotland's Biodiversity: It's in Your Hands, A strategy for the conservation and enhancement of biodiversity in Scotland)
- Our rich seas support 244 species of fish, amazing populations of seabirds, and a range of fascinating mammals: seals, whales and dolphins. And throughout all these habitats live some 25,000 largely unknown invertebrates.
(Source: Scotland's Biodiversity: It's in Your Hands, A strategy for the conservation and enhancement of biodiversity in Scotland)
- Scotland has at least 40,000 species of virus, bacteria and protozoa; 24,800 species of invertebrates and 20,000 different plants and fungi.
(Source: Scotland's Biodiversity: It's in Your Hands, A strategy for the conservation and enhancement of biodiversity in Scotland)
- Scotland contains 65 of the 159 habitats classified under the EC Habitats Directive, including some for which Scotland is globally important. The rest of the UK adds only a further 15 such habitats.
(Source: Scotland's Biodiversity Resource, www.biodiversityscotland.gov.uk)
(Information on the EC Habitats Directive, www.jncc.gov.uk/page-1374)
- Significant hotspots for species richness occur in Scotland. The richest areas occur in Argyll & Bute, the Breadalbane Hills, the Central Highlands and Skye.
(Source: Scotland's Biodiversity Resource, www.biodiversityscotland.gov.uk)
- The habitat is more extensive and varied in Scotland and Ireland than elsewhere in Europe.
(Source: Scotland's Biodiversity Resource, www.biodiversityscotland.gov.uk)
- Although built-up land accounts for only around 3% of the total land area some 80-90% of the Scottish population encounters the natural world most frequently in and around settlements.
(Source: Scotland's Biodiversity Resource, www.biodiversityscotland.gov.uk)
- Greenspace ranges in extent from around 10-40% of the major Scottish towns and cities.
(Source: Scotland's Biodiversity Resource, www.biodiversityscotland.gov.uk)

BIODIVERSITY

Communications Toolkit

- Between 1995 and 1999, biodiversity action plans were developed for 391 species and 45 habitats in the UK. Of these, 41 BAP priority habitats and 261 species either occur in, or have recently been lost from Scotland. (Source: The UK Biodiversity Action Plan)
- Since 1954, the number of species given legal protection, which occur in Scotland, has increased substantially. The number of bird species given protection has remained unchanged since 1981, although the number of other vertebrates, invertebrates and plant species has increased. This trend is more likely to reflect an improved knowledge of the status of these species than real changes in their geographical range or abundance. Despite increases in the number of lower plants and invertebrates receiving legal protection, the schedule places proportionally greater emphasis on the more charismatic groups - birds, mammals and vascular plants. (Source: Scottish Environmental statistics online, Scottish Government website)

The value of biodiversity in Scotland

Our biodiversity supports such diverse industries as agriculture, cosmetics, pharmaceuticals, pulp and paper, horticulture, construction and waste treatment. The loss of biodiversity threatens our food supplies, opportunities for recreation and tourism, and sources of wood, medicines and energy.

The impact of losing aspects of our biodiversity could be enormous and will deny future generations a wealth of cultural, scientific and commercial opportunities.

We have provided some facts on the value of biodiversity in Scotland and links to other resources where you can find even more information.

- Biodiversity is important for our health. Fully functioning ecosystems provide us with healthy and productive environments which support the economy of rural and coastal areas. Bacterial biodiversity gives us productive soils and clean water. Without our forests, bogs and the plankton in the sea, the greenhouse effect would be even more serious. (Source: www.scotland.gov.uk/Publications/2004/05/19366/37243)
- The first antibiotics came from a simple mould - discovered by a Scot. There are literally thousands of other Scottish plants, fungi, bacteria, plankton and fish which have, or could have applications in medicine, healthy eating, pest management and a whole host of other important products and areas. (Source: www.scotland.gov.uk/Publications/2004/05/19366/37243)
- Wildlife tourism is growing in popularity and now generates substantial income for the economy, especially in more remote parts of Scotland. Whale and dolphin watching generates around £3.4 million per year; visiting osprey sites generates around £1.7 million; and a long established recreation - angling on the River Tweed - generates £12.5 million. (Source: Scotland's Biodiversity: It's in Your Hands, A strategy for the conservation and enhancement of biodiversity in Scotland)
- Our nation has been built on its biodiversity. Herring, cod, haddock, and salmon were critical to the development of our economy, our seagoing skills, our infrastructure, and the nutrition of our growing industrial cities. (Source: www.scotland.gov.uk/Publications/2004/05/19366/37243)
- Forests and forest products formed the basis of shipbuilding, and the economies and trade associated with it. Deer and grouse underpin the economy of huge swathes of the upland areas of Scotland. While, in farming, where much of the genetic biodiversity is influenced by man, we have domesticated breeds or varieties - of both crops and livestock - which are renowned worldwide. (Source: www.scotland.gov.uk/Publications/2004/05/19366/37243)

More information about the value of biodiversity can be found at: www.cbd.int/convention/guide.shtml?id=changing

BIODIVERSITY

Communications Toolkit

Climate change

Climate change is one of the most serious future threats to Scotland's biodiversity.

The climate in Scotland is changing and increasing the probability of extreme weather events (e.g. storms, gales, flooding), which will have an effect on our natural heritage. Plants and animals live in certain climatic conditions and if this changes then species may not survive. Some species are more vulnerable to these changes than others.

We have provided some facts on climate change in Scotland and links to other resources where you can find even more information.

- Air and sea temperatures are predicted to increase significantly in the 21st century - by as much as 2-3°C. East coast waters will warm at a greater rate than those in the west. We can anticipate wetter autumns and winters, drier, hotter summers and more unpredictable weather events. Changes in precipitation will affect run-off and erosion. These changes will affect biodiversity.
(Source: www.scotland.gov.uk/Publications/2004/05/19366/37243)
- Already there are signs of change. Birds such as nuthatch and kingfisher appear to be moving north. In the future, birch may increase in pinewoods, oak may increase around the margins, and the tree-line will probably shift upward from its current level of 650m. Arctic-alpine habitats may disappear completely from our mountain tops, along with birds like the dotterel and snow bunting.
(Source: www.scotland.gov.uk/Publications/2004/05/19366/37243)
- In the marine environment, there is likely to be an increase in the number of southern species entering our waters; but we may lose species such as the sea-pen, the green sea urchin, and possibly the cod. Sea level rises - predicted at up to 70cm by 2080 - will affect coastal habitat, and this rate of change may be greater than the rate at which some species can adapt.
(Source: www.scotland.gov.uk/Publications/2004/05/19366/37243)

Further information:

www.ukbap.org.uk/library/BRIG/CBCCGuidance.pdf - see Conserving Biodiversity in a Changing Climate: guidance on building capacity to adapt

www.ukcip.org.uk – see the MONARCH Report, which is modelling natural resources response to climate change

www.defra.gov.uk/environment/climatechange/index.htm