

BIODIVERSITY IN EUROPE

Europe's biodiversity, the variety of all life and natural processes, is characterised by the links between human resource use and nature. The continent contains a broad range of socio-economic conditions, resource use traditions and ecosystems.

Generally moving from West to East the level of human impact on biodiversity decreases, and Central and Eastern Europe still contain the major remaining stores of biodiversity. However this may change following the accession of several Central and Eastern European countries to the EU and the continued economic development occurring elsewhere in the region.

Species Richness and Trends

Threatened in Europe

According to the **2004 IUCN Red List of Threatened Species**, 571 species are classed as threatened in Europe.

These include: 39 of Europe's estimated 293 mammal species, 29 of the estimated 833 bird species, and 14 of the 116 reptile species. The 2004 IUCN Red List also reports that in Europe there are 16 threatened species of amphibians, 64 freshwater fishes, 174 molluscs, 164 other invertebrates and 53 plant species.

Europe is estimated to house approximately **200,000 species** of animals and plants, which generally increase in density along a North-South gradient towards the Mediterranean Basin.

The continent contains two regions of extreme species **richness**, the Mediterranean basin and the Caucasus; both of which are designated Biodiversity Hotspots.

However, areas poorer in species contain important species both for human activities and natural processes and so richness alone cannot be used to identify suitable areas for protection.

Europe is also a major **breeding** or **wintering** stopover point for migratory species. The status of their habitats on the continent is critical to their survival elsewhere in the world.

To date, following the trends of European species has been difficult and on the continent only mammals and birds are well monitored. Currently there are a number of initiatives taking place to improve this situation.

The **Wild Birds Indicator** of Birdlife International and European Bird Census Council, possibly the world's most complete biodiversity indicator, has identified alarming declines in once common bird species and these trends are being identified for other taxonomic groups.

Populations of large **mammals** are in some cases decreasing, e.g. brown bears (*Ursus arctos*), remaining stable, e.g. wolves (*Canis lupus*) or increasing, e.g. wolverines (*Gulo gulo*). Most of these populations are in Eastern Europe and Central Asia and there remains a pressing need to ensure that continued economic development does not increase the threat to them.

40% remaining

The **Millennium Ecosystem Assessment**, a comprehensive assessment of the state of the planet's ecosystems carried out by nearly 1400 leading experts from 95 countries, documents that some **60% of the planet's ecosystems** are degraded or unsustainably managed.

It also notes that species variety and number are declining faster than ever, which is a great threat to the well-being of future generations of humans. The culprits for the decline in biodiversity are people themselves.



Halt the loss of biodiversity

Biodiversity and...

...Agriculture

Agriculture occupies approximately 40% of EU territory and absorbs over 50% of its budget.

In Western Europe the intensification of agricultural practices, promoted by the Common Agricultural Policy (CAP) in the EU, has led to widespread habitat loss and fragmentation, pollution through overuse of chemical inputs and water loss due to irrigation demands.

In the East, as countries went through a period of dramatic political change, the use of chemical inputs and irrigation declined drastically. However, events such as land abandonment and under-grazing are presenting new problems.

Although reforms are currently underway to the CAP and more funds are being allocated to rural development, considerable work is required to improve the level of biodiversity protection.

... Fisheries

Europe has a major impact on marine ecosystems through its fishing practices in European and global waters.

Currently the over-capacity of its fishing fleet has caused massive declines in once common marine species with over 80% of marine fish stocks facing collapse.

More work is required to further integrate biodiversity concerns into the Common Fisheries Policy (CFP) and to improve monitoring information on species trends.

In contrast to marine fisheries, freshwater production and aquaculture have increased significantly across Europe.

Problems that need to be addressed include the overuse of chemicals, the introduction of cultivated species into wild populations and the demand for fishmeal. Currently within Eastern Europe and Central Asia there is a large capacity for aquaculture, which remains dormant due to economic problems.

... Forestry

Forests cover almost half of Europe and represent an important natural resource in social, economic and ecological terms. The vast majority of Europe's forests are found in Russia and Scandinavia.

Unlike other major areas of resource production, the EU has no single policy governing forestry, leading to difficulties in generating accurate inventories and monitoring data.

Forests contain large stores of European biodiversity but are threatened by degradation

and erosion, illegal logging, air pollution, wild fires and climate change.

Actions to support forests include the promotion of the development and expansion of forest certification schemes, working towards the increased implementation of Natura 2000 in forests in all EU member states, and the maximization of the synergies between biodiversity conservation initiatives and forestry management schemes.

EU accession

The latest additions to the European Union have increased the population of the EU by 158 million people and extended the land mass by 58%.

Much of this land in Eastern Europe contains large unspoilt and species-rich areas, making it

Europe's last and most important stores of biodiversity. Species that were once common in Western Europe but are now rare, such as the corncrake (*Crex crex*), are still to be found in large numbers in the Eastern Europe.

For more information:

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