Barcoding life on Earth

23 May 2006

Barcode of Life - the British Flora will create a genetic barcode for all British plants - picture above shows the leaves of the oak tree, *Quercus robur*.

Plans are under way this week to launch a project to genetically identify, essentially barcode, all plants and animals on Earth.

Barcode of Life - the British Flora is part of this global scientific project and the aim is to barcode all British plants, estimated to be between 10,000 and 20,000.

Primula veris, cowslip

Differences between species of plants are usually found by looking at the appearance of leaves, stems, flowers and seeds. For example, some plants can only be identified by their flowers, which is not much help if the plant is not in flower.

Less well-known plants can sometimes only be identified by specialist botanists, so having a global catalogue of plant species will make it much easier for non-specialists, as well as specialists, to access

this important information.

DNA coding

Taraxacum offininale, dandelion clock

Barcoding looks at the genetic information in a particular section of DNA - this is different for each species so the result is a unique species-specific barcode.

Threats to biodiversity

Climate change and rapid changes in land use threat biodiversity all over the planet. It is important to accurately record the world's species before they disappear forever, and ideally, use the information to protect and manage these threatened populations.

Using the barcodes

As well as conserving biodiversity, barcoding information can be used in other areas such as forensic science - to identify plants at a crime scene, and in monitoring the illegal trade in endangered species.

Cystopteris diaphana, diaphanous bladder fern

'Life on earth is beautiful, complex and plentiful,' said Johannes Vogel, Keeper of Botany at the Natural History Museum. 'We know of only some 10 per cent of all wildlife we share our planet with.'

'Today, technological advances give us unique opportunities to combine modern methods with our traditional skills. We will be better and faster in discovering, exploring and cataloguing all life on Earth.'

Barcode of Life - the British Flora is a partnership between the Natural History Museum, Royal Botanic

Gardens, Kew and the Royal Botanic Garden, Edinburgh.

Further Information

- Visit the Plant Power gallery and the Ecology gallery
- Learn more about Plants & fungi and Biodiversity

External Links

- The Consortium for the Barcode of Life (CBOL)

Related information

- **Latest news**
- **Archived news articles**