



RARE BLOOM: Spreading Bellflower (*Campanula Patula*), one of the species Wales has a special responsibility to conserve

Code red

Head of Conservation and Research, **Dr Natasha de Vere**, explains how the new list of Welsh endangered plants is informing conservation research here at the Garden

In order to conserve plant species we first need to know what species we have and how many are threatened.

On a global scale, we only have this information for a proportion of plant species. The importance of understanding and documenting plant diversity is highlighted within the Global Strategy for Plant Conservation. This is a document that was produced in 2002 and outlines 16 targets that need to be met by 2010 in order for us to protect our plant species.

The UK has produced its own response to this strategy, Plant Diversity Challenge, which gives a UK perspective to the 16 targets. The first target is to develop a working list of all plant species; here in the UK we know approximately how many vascular plants (seed plants and

ferns), mosses, liverworts and freshwater algae we have, but we still have some work to do on the fungi.

Once we know how many species we have, regular assessment of their conservation status is needed so that we can prioritise which ones most need conservation action and to see how effective that conservation has been. This is target 2 of the Global Strategy for Plant Conservation and Plant Diversity Challenge.

The World Conservation Union (IUCN) has devised a set of internationally agreed criteria for making conservation assessments so that all species around the world are evaluated in the same way. These are compiled into 'red-lists' highlighting which species are endangered.

There has been a red list for the vascular plants of the UK for a number of years but, up to now, there was no specific list for Wales. This has now changed. Dr Trevor Dines from the wild plant conservation charity, Plantlife, has produced the Vascular Plant Red Data List for Wales, with the help of the plant recorders from the Botanical Society of the British Isles and the Countryside Council for Wales. You can download a copy of the red list from Plantlife's website: <http://www.plantlife.org.uk/uk/plantlife-wales-publications.html>

So how are the plants of Wales doing? Well, of the 1,467 species found in Wales, 2.6% are extinct, 17.5% are threatened with extinction (varying from species that are vulnerable to those critically endangered), 5.5% are near to being



EXTINCT: Downy Hemp-Nettle (*Galeopsis Segetum*) grows here but it is extinct in the wild of Wales

threatened and for 2.3% we do not have enough information to judge at present.

Of the species that have been lost, many of these are 'arable weeds', species that are typically found in cultivated fields. This includes species such as the downy hemp nettle (*Galeopsis segetum*) last recorded in the wild in 1975.

To see this plant now you have to come to National Botanic Garden of Wales where we have this species growing in our Rare Welsh Plants bed.

A particular value of the red list is that it identifies species that we have a special responsibility to conserve within Wales. The most important of these are the 'endemics' – species that are found in Wales and nowhere else in the world.

The red list also highlights species for which Wales has more than 25% of the UK population. This gives us 44 species that are Welsh conservation priorities.

How does this relate to our conservation work here?

The red list provides us with a priority list of species from which we can choose those that NBGW can help most with our conservation and research programme. It also provides a baseline; hopefully the species we work on will become less endangered over time, or at the very least will not get any worse!

So far, out of the 44 species for which Wales has a priority, we are currently working on or have been involved in the past, with 10 of these species, including wild cotoneaster (*Cotoneaster cambricus*), spreading bellflower (*Campanula patula*) and the endemic whitebeams (*Sorbus species*), all included within our Rare Welsh Plants Project.

Over time the number of species we work on will increase and, hopefully, we can ensure that their conservation status improves. ■



WILD SAMPLE: Dr deVere collecting a leaf sample of Wild Cotoneaster (*Cotoneaster Cambricus*) so that the plant's DNA can be analysed



ENDEMIC: Wild Cotoneaster (*Cotoneaster Cambricus*), found only in Wales