

*BGEN Annual Conference 2007, 7th - 9th November 2007
National Botanic Garden of Wales: Biodiversity or Bust*

Objective 2 of the GSPC - Conserving Plant Diversity What should we conserve and where?

Dr Chris Cheffings

Joint National Conservancy Council

What do we mean exactly?

- How much diversity?
- What type of diversity?
- What would you like to see conserved and where?

What would we all like to have conserved and what would we like to see in the countryside?

- Public demand for conservation
- Drivers for conservation include nostalgia and economic benefits

Why do people want orchids conserved?

- most people have heard of orchids (although not everyone knows that there is more than one type), and
- most people have picked up an idea that they are special or mysterious in some way.
- There seems to be a very general belief that all orchids are extremely rare and extremely endangered, and probably legally protected.

I never feel that I have managed to persuade anyone when I have spent time and effort explaining that a particular species is not rare, not endangered, showing a tendency to increase, and has not suffered harm from being mown by the Highways Agency. There are much better reactions when time and effort is spent explaining pollination syndromes and attempting to get some interest in plant biology.

Maybe, orchids are the closest that the plant world has to a tiger or a giant panda. Everyone seems to believe that they need to be conserved, even though they may never have seen one. This is conservation for the value of knowing that the species is out there somewhere. It is far more difficult to use the intrinsic value of knowing it exists argument for less showy plants.

Nostalgia

Another big driver for what we want to see conserved is nostalgia. Change, of almost any type, is perceived as a degradation and should be fought. In the past fifty years, since the Clean Air Acts, there has been a gradual increase in epiphytes, a return that should be celebrated, but which is perceived as an aberration, maybe a sign of diseased trees, because this is not the state that we are nostalgic about

But usually nostalgia is a force that acts to assist plant conservation, usually nostalgia looks to a time of greater diversity in the countryside around us. When I was a child, the wide species rich roadsides acting as an abundant reservoir of plant diversity which is extremely visible and therefore a part of my life – it is not hidden away. In many cases we hear how

house building or road building has destroyed habitats. That is not the case in this instance. What occurred here was a change in management, and the drivers for that change in management were economic – both direct and indirect.

- As a child, these roadsides were managed for their hay crop, which was harvested by the farmers who lived on the road.
- Now, the hay is not cut or utilised, the roadsides are cut by the local council, but not at an optimal time for hay, and without the care to remove the cut grass.
- Farmers have stopped cutting the hay for a variety of reasons, mostly due to a switch to silage cut from fields managed specifically for the purpose.
- However, an added factor was a reduction in the quality and usability of the hay due to an increase in dog fouling. This was due to increasing pet ownership within a growing village population, and a preference for dog-walking on an accessible green road.
- Obviously, farmers would not choose to feed cattle on hay that has been fouled.
- Plant diversity has greatly reduced, and the sward is now dominated by coarse grasses.

Plant conservationists have our own very definite ideas about what should be conserved, but we need to admit that there are other viewpoints, and we need to conserve what everyone wants to conserve. The conclusion always seems to come down to better education

I'm sure that we are right in believing education to be the answer, but I don't know how smart we are being in our approach to this. We need to identify common goals between groups of people who may have very different overall visions. For example, hunters and ornithologists have extremely different visions, but can work together on the goal of having plenty of birds to either shoot or tick off on a list.

Where do we want to conserve plant diversity?

If we identify the types of diversity we want to conserve, where should it be? With orchids we simply wanted to know that they were out there somewhere, with my nostalgia for species-rich roadsides I wanted plants back where they were visible and part of my life.

When we had the press coverage for publishing the new Red List, one of the most common questions was whether people could help by planting them in their gardens. I think the fact that so many people have gardens and have experience of planting seeds and growing plants, means that there is a general assumption that we can just plant the countryside back the way we want it and we will all be fine. We need to have better ways to explain this, to explain the complexity of ecosystems and the network of relations that occur in a functioning ecosystem, and the need to have plant diversity out in the countryside. I think there is far better understanding that a tiger in a zoo is insurance, but that a tiger in the wild is what should be conserved. I think people can relate to the fact that a zoo-bred tiger may not learn the skills required to survive in the wild. It is much more difficult to explain why a plant will no longer be able to survive. But we need to do this, we need to explain that plants will also 'forget' how to interact with mycorrhizal fungi and surrounding plants.

Do nature reserves work?

People believe that you can conserve plants by conserving the small pockets of land on which threatened plants grow. This is the classic nature reserve method of conservation. Nature

reserves were for a handful of nature enthusiasts to visit, and the rest of us should rest assured that biodiversity had been conserved. However, what is it exactly that is being conserved? It may be those plants classified as ‘very rare’, but it certainly isn’t the kind of plant diversity that we feel nostalgia for.

The surrounding land has a huge impact on the small pocket that you are trying to conserve, and fragments just seem designed for plants to gradually disappear from one by one. If we conclude that we want more than just nature reserves, if we want to start seeing plant diversity all around us, what is the mechanism that is going to achieve this? Nature reserves are about having a comfort zone – we can see that if we purchase a piece of land and dedicate it to conservation then that could help look after plant diversity there.

Should we have areas of the country set aside specially for intensive agriculture? How much do we really need?

What do we need?

One thing is clear, that if we are going to conserve plant diversity then we are going to need resources, and we are not going to get resources if the general public do not see the value of the work that we do. We also need to better understand the links between our actions and what happens to the environment. We need to communicate our own values more effectively. We need to understand other people’s values and work with those values to develop a more holistic view of what should be conserved. We definitely need to make sure that we conserve things in the most appropriate areas – rare orchids might be alright in a high security nature reserve, but most things should be conserved where we can all see them and appreciate them. And we need to understand the economic drivers for change, and see what mechanisms can be used to achieve the value goals that we want to have.