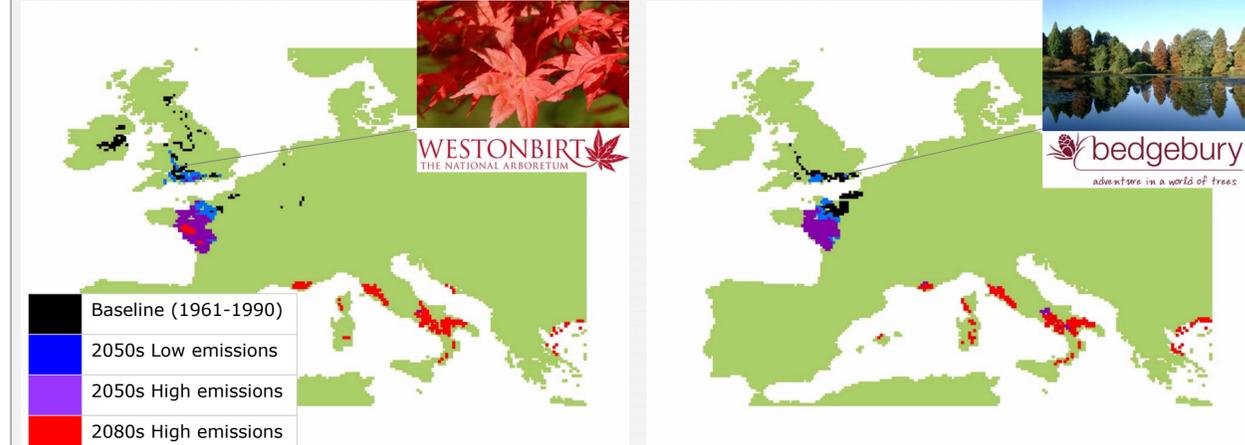


The National Arboreta and Climate Change Adaptation

Introduction

The National Arboreta are the Forestry Commission's two premier tree collections. Together they contain about 4000 different taxa, earning them worldwide recognition.



Forests of the Future...

Climate matching research shows that as early as the 2050s the climate at Bedgebury and Westonbirt could look more like that currently seen in parts of southern Italy or Greece.

The Forestry Commission recognises the urgent need to plan ahead to ensure that these significant collections are able to adapt to these changes.

Note: Low and high emissions refer to the carbon dioxide emissions projected for each scenario

Long Term Planning Group

A long-term planning group has been set up to plan how to help the national collections adapt to climate change. This includes:

- A Climate Change Risk Assessment
- An Adaptation Action Plan
- Assessment of the vulnerability of the collections to pests and diseases

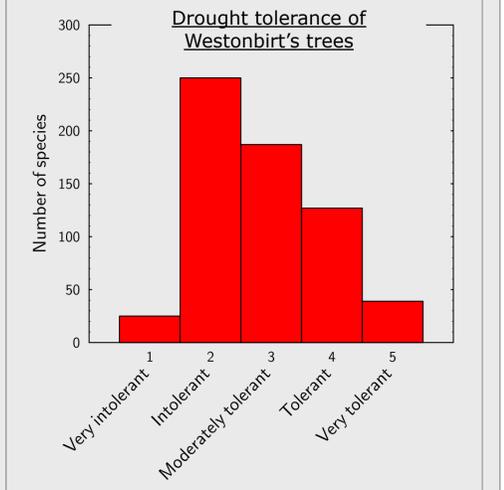


Westonbirt without colour? One of the aims of the Group is to communicate the work it is doing. This picture shows one of the banners that has gone up at Westonbirt.

Drought tolerance at Westonbirt

At Westonbirt work has been done to assess the drought tolerance of the collection, and the soil depth across site.

The results show that 40% of Westonbirt's trees are either very intolerant or intolerant of drought (*graph, right*). This includes the Arboretum's signature Japanese maple collection.



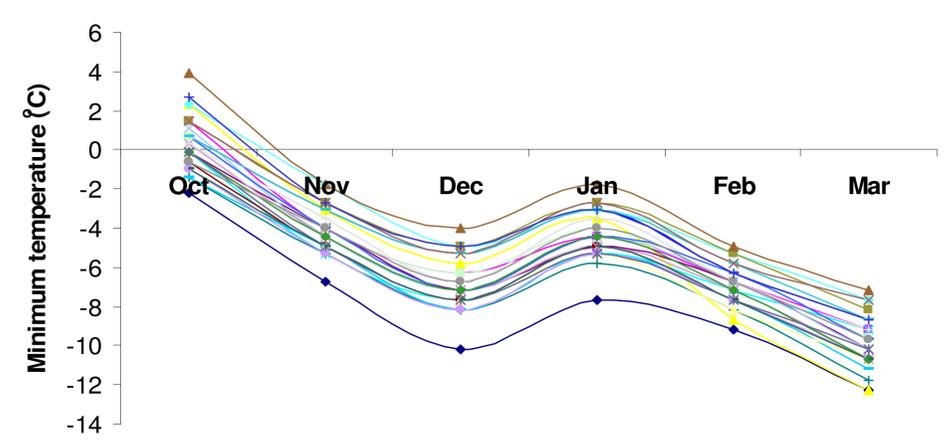
Work has begun to duplicate the maple collection on areas of deeper, more moisture retentive soil within the Arboretum.

Temperature variation at Bedgebury

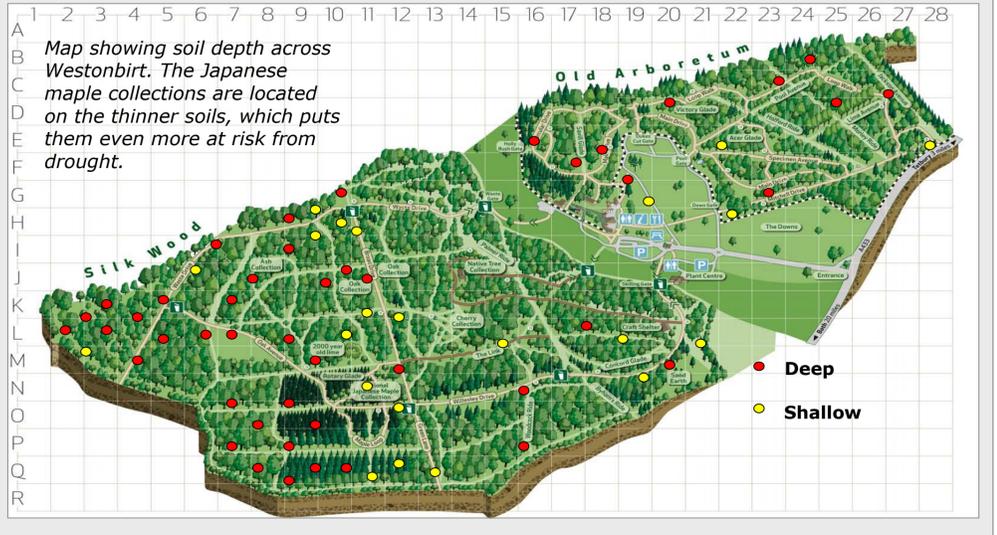
Bedgebury Pinetum's conifer collection is part of the International Conifer Conservation Programme (ICCP).

Studies into temperature variation across site at Bedgebury have helped to demonstrate how adaptation to climate change can be achieved simply by using topography and aspect.

This will also help to extend the range of species that Bedgebury can conserve.



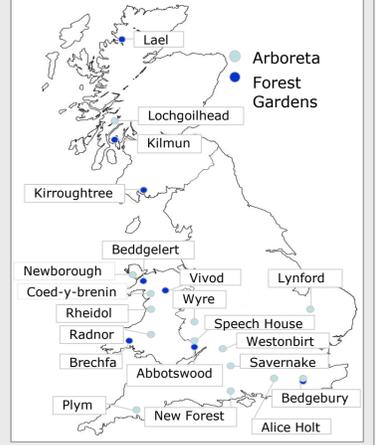
Graph showing temperature variation across site at Bedgebury. Each line shows the minimum monthly temperature of a different section of the Pinetum.



Tree Collections Project

This two year project is surveying the content and condition of all the arboreta and Forest Gardens on Forestry Commission land.

For the future this means that trees will be planted where they will grow best and consequently genetic diversity will be dispersed and replicated across several sites.



Map showing Forestry Commission arboreta and forest gardens

Find out more...
www.forestry.gov.uk/england
westonbirt.education@forestry.gov.uk

