

Developing an ex situ conifer collection

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Background

The National Arboreta was formed in 2001 by the amalgamation of Bedgebury Pinetum and Westonbirt Arboretum. Between the two collections in excess of 22,000 numbered specimens, representing some 4000 taxa, are looked after and displayed to over 500,000 visitors. Our mission is 'To connect people with trees to improve the quality of life' in a world leading, inspirational and fun way.

Bedgebury, the National Pinetum, was started in 1924 as a partnership between the Forestry Commission and Kew Gardens. The declared aims were;

that a pinetum would be created to become a national resource for scientists, student foresters, and anyone with a keen interest in trees

- that forest plots would be established along side it, investigating potential forest species for British and Commonwealth forestry.

The Forestry Commission assumed full management for the site in 1965. At that time the pinetum extended to some 60 hectares and a further 19 hectares was added in 1996. We are currently looking to add a further 45 hectares.

The forest plots cover a further 40 hectares. Seventy-five percent of these plots were destroyed in the storms of 1987 along with twenty five-percent of the pinetum.

Current Position

Bedgebury is currently considered to be one of the best collections of conifers in the world today. Our current aim is to grow and display all temperate conifers that will grow in the climate at Bedgebury, currently identified as 603 species. However, broadleaved species are also planted to enhance the landscape and visual attraction for visitors.

The Forest Plots area has remained relatively undisturbed since the storms of 1987 but is now being transformed to the delivery of our Conifer Conservation Programme. The aims and objectives for our Conifer Conservation Programme are;

- to work in partnership with the International Conifer Conservation Programme to assist in their efforts to help conserve threatened temperate conifer species
- to raise the awareness for the need to protect the world's conifers, through interpretation and education. To provide a link to the original set up of the plots by the Forestry Commission and how they are developing today

- to establish ex-situ plantings that are based on sound scientific principles. These will be established with due respect to the natural environment of Bedgebury and be planted in a sustainable, aesthetically pleasing manner
- to assist and support Global Strategies for Plant Conservation
- carry out research, on the species planted and disseminate the information to interested parties
- to forge links and partnerships with other organisations to help achieve these aims and objectives
- to provide both internal and external staff development, education and training resource for interested groups
- investigate any potential threats to conifer species from the predicted effects of climate change.

The above will be delivered by establishment of ex situ conifer collections where we shall grow several hundred of just a few species, in association with other plants from the same part of the world. This will help us to meet three of the targets set by the Global Strategy for Plant Conservation:

- Target 3, Providing methods for plant conservation based on best practice
- Target 8, Linking *ex situ* and *in situ* conservation
- Target 14, Communicating and educating.

Good record keeping and dissemination of any knowledge and information is the foundation of what we are trying to achieve. Creating plant profiles for all the species that we plant will also be a key element in this. Species profiles will include all that is known about a particular species and will act as a reference point for future research.

The project is steered by a Conifer Conservation group, which includes the International Conifer Conservation Programme based in Edinburgh as well as other interested parties.

Some of the forest plots remain intact and will be managed until full rotation when they will then become available for future conservation planting. Until then they will have two important functions:

- they give landscape impact, to the site
- they provide shelter and opportunities for underplanting for some of the more tender plants.

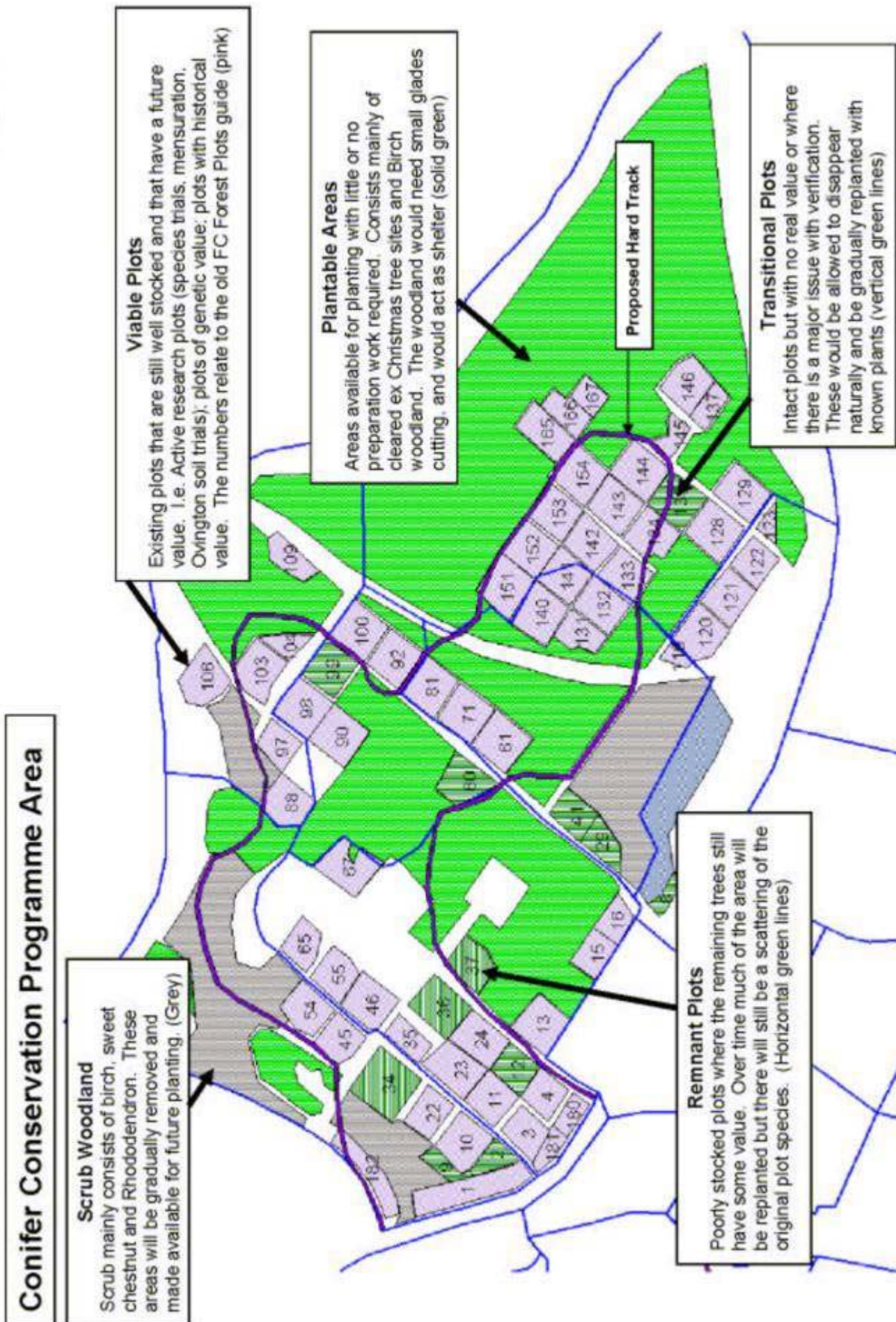
Alongside areas immediately available for planting other plots are in a transitional stage and will become available for planting over the next few years. Map One shows the breakdown of the different areas.

Meeting Target 14 of the Global Strategy for Plant Conservation is a very important part of this project. The best way of achieving this is to create an area that actively encourages visitors to engage with these issues. For this reason we have broken the area into six geographic areas and will also plant associated species of woody plants amongst the endangered conifers. This will enhance diversity and visitor interest. Good footpaths and interpretation is also a key element in achieving this target. Map Two shows the area broken into the geographic areas.

Map Two also shows species that have been identified for inclusion in the project as well as others that are under consideration. The focus is very much on threatened conifers from each geographic region. However, we want to keep as much flexibility as possible which will allow us to be opportunistic as and when we develop new partners and receive offers of plants. One of the reasons for attending the Wuhan Congress was

to discuss possible partnership arrangements for this project. The key to the successful conclusion of this project will be the partnerships that we form.

Map One



Map Two

