Briefing Paper- The Future of the Trees of Rousdon Estate

We are all too well aware that the trees of our Estate are under threat. This paper seeks to identify the major threats and consider ways of offsetting those threats.

Diseases and Pests

Since the mid-1990's the emergence of new tree diseases has been remarkable and their effects are on the increase. Of particular note are the diseases in the group Phytopthera (Greek for plant destroyer). Tomato blight and potato blight are included in this group. There are a growing number of Phytoptheras emerging, but two in particular have the potential to affect Rousdon.

1. Phytopthera ramorum. This disease affects many tree species including larch, turkey oak, holm oak, beech, sweet chestnut, horse chestnut and so on. According to the Forestry Commission the South West is in a high risk zone. Rhododendron and laurel are known hosts of this disease.
2. Phytopthera kernoviae. As its name suggests this was first discovered in Cornwall and is known to affect rhododendron and beech amongst others. This must be viewed as a risk due to its emergence in Cornwall and the amounts of uncontrolled rhododendron and laurel throughout the Estate.

There are other Phytoptheras, but these are of a lesser risk at this time. Another disease, however, is likely to pose a considerable risk to the Estate.

3. Chalara fraxinea also known as ash die-back. We have known of this disease for some time, but a Forestry Commission map clearly demonstrates its steady advance toward our area. As of November 2014 there are confirmed outbreaks as close as Cullompton in the West and between Bridport and Dorchester to the East. As it is primarily carried by the wind it seems only a matter of time before it arrives. It should be noted that these are scientifically confirmed outbreaks and there may well be outbreaks a lot closer of which no-one is aware.

Our Estate is not immune to the threat of diseases and pests. A good illustration of this is the Horse Chestnut Leaf Mining Moth (Cameraria ohridella). This small moth was first identified in Macedonia in1970 and now infests 95% of British trees. All the horse chestnuts on the Estate have this pest. How to deal with it is being explored.

Climate Change

It is uncertain as to how our trees and woods will respond to climate change. The assumption, however, that the growing environment will remain stable is flawed. Warmer winters and wetter summers, amongst other factors, are bound to make a difference to our woodland environment. The Forestry Commission, for example, maintain that broad leaf tree species will continue to be part of England's woods, but the South and East are likely to prove the exception by the end of the century. That, of course, includes us.

On our Estate there have been a number of tree deaths and trees have had to be removed due to their declining health. These include ash, beech, sweet chestnut, western red cedar and others and are of different ages. It is not known why this decline has occurred.

Adapting to the challenge of a changing climate and the remarkable increase of pests and diseases, in the last 20yrs., is creating a problem which should neither be underestimated nor ignored.

Solutions to Consider.

One of the most obvious solutions we must consider is diversification. This is recommended by the Forestry Commission, Natural England and other authorities. The Estate cannot remain the same as it was originally laid out as we need to adapt to the changing times. Victorian fashions are no longer appropriate.

This means that when it comes to replanting we need to make sure we plant as broad a spectrum of tree species as we can. We need to consider trees that are appropriate for environments that are, presently, between 2 and 5 degrees of latitude further South.

Avoiding a monoculture approach is recommended. Planting further rows of copper beech along the Main Drive, and ash along the bridle path should be avoided and a mixture of species considered.

Create an environment where natural selection can work its magic, so that trees might adapt to climate change and disease/pests. This can be done by planting more trees and ensuring there are pathways linking tree stands and the wider, natural environment of the Undercliff.

One of the greatest threats to the natural environment of the Estate is the out of control laurel and rhododendron. The cycle of leaf fall, broken down by fungus and insects and the nutrients taken up by the trees, is as old as nature itself. This critical cycle is fractured by the laurel and rhododendron and only sterile, dead ground remains. These plants are also hosts for some of the very diseases we are trying to avoid. As a properly managed hedging plant laurel is excellent, but when out of control it is deadly. Removal as a matter of urgency should be considered.

Conclusion.

The information in this paper can be verified by referring to the Forestry Commission, Natural England, DEFRA, and Woodlands Trust websites. There are others, but these are the main ones. This paper is intended to provoke discussion and bring to the fore the actions we need to take and it is indicative of the directions we might explore to preserve the nature of the Estate for the future.

I am happy to discuss this paper with anyone, individually or collectively. It is not definitive, but is a flavour of the issues with which we are faced. Simply get in touch.

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