

Identifying key questions and leverage points for plant health in the natural environment

Policy Summary



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1 Policy Summary

1.1 Background

There is good evidence of the considerable risks to plant health from non-native plant pests in the natural environment (semi-natural habitats). In addition, stakeholders often lack awareness of these risks and may not always implement appropriate biosecurity measures. The challenge is how to implement actions that improve behaviours around plant biosecurity given the limited resources available and under-recognition of this issue within the natural environment and conservation sector. One mechanism that maximises the impact of effort is to identify leverage points; small changes within a system that can have a big effect on people's behaviours and attitudes with respect to biosecurity in the natural environment.

1.2 Key Research Question

How can we strengthen project, organisational and system wide actions and processes for improved plant health and biosecurity behaviours in the natural environment in Scotland?

1.3 Research Undertaken

This project used systems thinking to identify leverage points where changes in behaviour, attitudes or processes could improve biosecurity and hence plant health in the natural environment. Systems thinking is a way of framing the complex interactions between people, organisations, processes and policies. Leverage points are places within these complex systems where intervention can cause transformative change.

The main activity for this project was a one day in-person, workshop where participants worked in break out groups to identify leverage points within projects, within organisations and at a higher system level across organisations termed transformational change.

1.4 Recommendations

Leverage points relevant to the revised Scottish Plant Health Strategy

- The identification by Scottish Government of a responsible organisation for plant health in the natural environment, clarification of any overlaps in responsibility with other organisations, and provision of appropriate resourcing. (After the workshop and prior to the publication of this report the revised [Plant Health Strategy](#) was published which commits to ensuring “*that control responsibility for plant health in the Natural Environment is appropriately assigned to a relevant organisation*”).
- Awareness and consideration of biosecurity, as well as accountability, embedded into existing best practice guidance within the conservation and restoration sector.
- The inclusion of biosecurity within grant schemes for habitat restoration and creation.
- Mainstreaming of biosecurity in the natural environment through government departments. This action could be progressed by including biosecurity in the natural environment within discussions held by the Environment and Economic Leaders group and the Scottish National Adaptation plan.
- The development of a programme of plant health monitoring in the natural environment.
- Provision of improved clarity over the trade-off between the costs and benefits of increased biosecurity, i.e. not moving plants for biosecurity reasons, versus moving plants for increased species or genetic diversity for resilience.

Leverage points that should be taken into account when implementing the Scottish Biodiversity Strategy

- Awareness and consideration of biosecurity, as well as accountability, embedded into existing best practice guidance within the conservation and restoration sector.
- Grant schemes designed to target both maintaining existing habitats/sites already in good condition and creating/restoring habitats which can be resilient rather than a focus on X ha of restoration.
- Grants schemes designed to include paying for outcomes: this would have a wide range of biodiversity benefits including improved biosecurity.

Leverage points relevant to the land use strategy

- Development of a mechanism, with appropriate funding, to enable landowners to work together e.g. across a catchment, to deliver diverse, resilient landscapes.

Leverage points for organisations working in the natural environment to implement

- Awareness and consideration of biosecurity embedded within good practice within the organisation.
- The inclusion of biosecurity within grant schemes for habitat restoration and creation.
- The use of network or membership organisations' networks/newsletters/events to promote biosecurity.
- Improved plant health and biosecurity training within CPD in all organisations working in the natural environment. This action could be progressed by inclusion of such training within NatureScot's 'adapt policy'.
- Improved training for contractors in biosecurity with particularly emphasis on the importance of clean machinery.
- Change in perceptions of biosecurity from it being a barrier to meeting targets to an action for inclusion for the successful delivery of habitat restoration.
- Where appropriate, the inclusion of plant health and biosecurity in responses to consultations on new policies/regulations/grant schemes.
- An increased understanding of the language of uncertainty. This action could be progressed through training which would enable a better understanding of when and how to implement the precautionary approach, with respect to biosecurity and the natural environment.

1.5 Next steps

To implement the leverage points listed above the following next steps are recommended:

- Where appropriate (as indicated above) include the leverage points within the relevant policies or the implementation of the policy (the revised Scottish Plant Health strategy, Implementation of the Scottish Biodiversity Strategy, The Land Use Strategy).
- Develop an implementation plan to implement the recommendations from both this report and from previous PHC systems reports (White, Watkins et al. 2023). Plant pests do not stop at country boundaries. Identification of roles and responsibilities and leverage points to improve biosecurity in the natural environment needs to happen across the devolved nations within the UK. These country level discussions should be joined up across the UK, so that there is a co-ordinated approach, for example through JNCC's Inter-agency "Plant Health for Biodiversity" Group.

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