

Developing resources for appropriate plant biosecurity assessments and implementation in natural habitats

Policy Summary



www.planthealthcentre.scot



Royal
Botanic Garden
Edinburgh



The James
Hutton
Institute

This work was commissioned by Scotland's Centre of Expertise for Plant Health Funded by Scottish Government through the Rural & Environment Science and Analytical Services (RESAS) Division under grant agreement No [PHC2024/02](#)

Full report is available [online](#)

Please cite this report as follows: M. Elliot, R.J. Mitchell, A. Yeomans (2025). Developing resources for appropriate plant biosecurity assessments and implementation in natural habitats: Policy Summary. PHC2024/02. Scotland's Centre of Expertise for Plant Health (PHC). DOI: <https://doi.org/10.5281/zenodo.18860331>

Dissemination status: Unrestricted

Copyright: All rights reserved. No part of this publication may be reproduced, modified or stored in a retrieval system without the prior written permission of PHC management. While every effort is made to ensure that the information given here is accurate, no legal responsibility is accepted for any errors, omissions or misleading statements. All statements, views and opinions expressed in this paper are attributable to the author(s) who contribute to the activities of the PHC and do not necessarily represent those of the host institutions or funders.

Details of Copyright Images: Front cover image by Matt Elliot, RBGE

1 Policy Summary

1.1 Background

There is an increasing awareness of the impacts of plant pests and diseases in the natural environment in recent years, most noticeably on tree species. For example, ash dieback, caused by the fungus *Hymenoscyphus fraxineus*, is a very visible reminder in our landscape of the dangers associated with the introduction of exotic pest and pathogen species¹. Tree health issues are high profile, and symptoms are usually noticed quickly, but a new pest or pathogens on important smaller native plants species (e.g., heather, blaeberry, etc.) may take a lot longer to discover and manage².

It is therefore imperative that those working in the wider environment are aware of the biosecurity risks associated with the work (e.g. plant relocations, translocations, habitat creation and habitat restoration) that they intend to carry out so that plant pests and diseases are not accidentally introduced with their conservation target species. This negates the well-intentioned activity. There are a number of information resources available, such as Defra's Plant Health Information Portal, but it is sometimes difficult for those not familiar with biosecurity to assess what specific actions they need to take to reduce risk in their particular context.

This project therefore aimed to work with stakeholders to produce a resource which leads users through a process of producing a biosecurity plan which is bespoke to their proposed project. We called this resource the [Plant Health Biosecurity Plan](#) (PHBP).

The PHBP presents a significant step forward in the protection of sensitive habitats from the introduction of unwanted organisms. In addition, several elements of the PHBP are cross cutting and relevant to general site biosecurity, making them applicable to many other areas, such as invasive non-native species (INNS) management, island biosecurity (i.e., seabird protection) and animal health.

1.2 Research undertaken

- Literature review to understand the range of biosecurity risk assessments available nationally and internationally across different sectors. This information was used to inform sections of the PHBP where appropriate.
- A workshop with practitioners and statutory bodies to go through a draft PHBP to receive feedback on how it can be improved from their perspectives. This was intended to make the PHBP as useful as possible.
- Developing the first version of the PHBP which can be used by anyone who wants to carry out a biosecurity risk assessment for a project which they are planning.
- The PHBP can also be used for animal health and INNS projects.

¹ Coker T.L., Rozsypálek, J., Edwards, A., Harwood, T.P., Butfoy, L. and Buggs, R.J., 2019. Estimating mortality rates of European ash (*Fraxinus excelsior*) under the ash dieback (*Hymenoscyphus fraxineus*) epidemic. *Plants, People, Planet*, 1(1), pp.48-58.

² Mitchell, R.J., 2023. Plant Health and the Natural Environment: Project Final Report. PHC2020/03. Scotland's Centre of Expertise for Plant Health (PHC). DOI: 10.5281/zenodo.8297811

1.4 Main Findings

There is currently a range of biosecurity resources available, many have been produced over time, in many different places, and for many different contexts with the potential for creating confusion over what resource to use. This is not helped by the separation in policy areas between plant health, animal health and invasive species management. It can therefore be challenging for those not familiar with biosecurity to write a biosecurity risk assessment for their proposed work.

The PHBP cuts through this potential confusion, presenting a biosecurity resource which is applicable to the majority of contexts across Scotland's wider environment (i.e., semi-natural landscapes).

The PHBP balances guidance with prompts for critical thinking. Those completing a PHBP need to think critically about the potential biosecurity risks posed by their work when filling out the plan. The PHBP provides examples and extra information in order to guide users, particularly those who are new to biosecurity, but they will need to apply critical thinking to the process to make the PHBP relevant to their application.

1.5 Recommendations

The PHBP is a validated resource that can be used across sectors to reduce biosecurity risks in the environment. In order to increase use and uptake we recommend the following:

- Strengthen governance of plant health in the natural environment to better administer and oversee activities across Scotland's iconic landscapes, in line with Scottish Government's commitment in the Scottish Plant Health Strategy 2024–2029 to designate formal responsibility in this area.
- Ensure the PHBP is used across policy areas (i.e., plant health, animal health, invasive species) so there is one approach to prevent the introduction and spread of **all unwanted organisms**.
- Promote the PHBP as part of the application process for funding for work in the natural environment (e.g., NatureScot's Nature Restoration Fund projects) so that applicants can assess and provide evidence that the potential biosecurity impacts of their proposed work have been systematically addressed.
- Promote the PHBP widely across the natural environment sector through webinars, talks, and newsletters as well as through attending practitioner facing events.
- Raise awareness of biosecurity implication in the wider environment. Many people working in conservation are unaware of the potential negative impact of their work.
- Provide training courses for those carrying out biosecurity risk assessments in the wider environment
- Consider how to deal with any plant pest and disease outbreak in the natural environment e.g. running scenario exercises and providing information for practitioners on how to fill in the section on Incursion / Outbreak Response in the PHBP template.

Plant Health Centre
c/o The James Hutton Institute
Invergowrie,
Dundee, DD2 5DA

Tel: +44 (0)1382 568905

Email: Info@PlantHealthCentre.scot

Website: www.planthealthcentre.scot

LinkedIn: <https://uk.linkedin.com/company/plant-health-centre>

