

# Sector: Natural Environment



# Sector profile

- c.1000 species of vascular plants, c.1000 species of bryophyte, c. 1500 species of lichen
- Montane, boreal, arctic-alpine, and oceanic habitats in close proximity
- Internationally important blanket bog, heather moorland, Atlantic rainforests, montane native woodland and machair
- Important global representation of cryptogamic plants and fungi
- Sector includes species and habitats of cultural and socioeconomic importance as those for which Scotland has international responsibility

# Threats

- Highly diverse set of assets, susceptible to highly diverse set of pests and pathogens
- Susceptibility of natural systems to pest and pathogen spread from production systems
- Increased movement of pests and pathogens combined with environmental change leading to increased threats
- Loss of structural components of habitats have cascade effects (e.g. ash dieback impacts on lichens)

# Issues identified

- Critical to ensure clarity of message and best possible advice, despite inherent uncertainties
- Develop thinking around system critical elements, whose loss would have wider impacts
- Ensure plant health is fully embedded in future iterations of the Scottish Biodiversity Strategy
- Enhance connections to Invasive Non-Native Species management
- Can be trades-offs between biosecurity and plantings to support habitat restoration of degraded systems

# Challenges

- Sheer complexity of target, and knowledge of likely plant health impacts
- Diverse set of sources of problems
- Baseline is unknown and under-surveyed
- Relatively poorly developed plant health infrastructure for the natural environment
- Major challenges for surveillance and monitoring
- Decision making in the face of uncertainty

# Sector: Horticulture



# Sector profile: Horticulture



- High quality private and public horticultural collections
- Rich cultural history of garden creation, plant collecting and introduction, cultivation including allotments
- Horticultural plantings provide
  - amenity value in public spaces (recreation, health and well-being and tourism),
  - form structural components of landscaping projects,
  - represent a significant component of urban biodiversity
  - are central to private, public and heritage gardens
- Horticultural industry of significant economic importance
- Highly diverse set of plants in cultivation in Scotland

# Threats

- Extremely complex set of plant movements acting as potential vectors of pests and pathogens
  - Industrial scale movement
  - Long distance movement
  - Individual movements into high-value systems
- Furniture / packaging etc additional potential vectors
- High likelihood of pests and pathogen spread between sectors
- Climate change / extreme weather stresses increasing susceptibility of plantings
- Outbreak situations can have major impacts on business trading (quarantine / movement restrictions)



# Issues identified

- Identification of pests and pathogens
- Important role for the public as both owners, vectors and potential frontline observers
- Increase in online sales, and non-traditional outlets
- Potential for unnecessary biosecurity risks occurring
- Uncertainty surrounding implications of Brexit
- Changes in legislation around the use of chemical treatments
- Advice on practical solutions and their safety of use

# Challenges

- Extremely high diversity of plants in cultivation
- Varying levels of awareness and ownership of the plant health threats to horticulture
- Limited baseline research on horticultural epidemiology (in relation to the scale of the issue)
- Complicated and distributed set of interested parties creating communication challenges in an outbreak situation
- Potential for conflict between open procurement and price vs best practice in biosecurity