



Department
for Environment
Food & Rural Affairs

Emerging Threats & Current High Risks

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The Importance of Plants

98% of the oxygen we breathe is produced by plants



80% of the world's terrestrial species of animals, plants and insects live in forests



1.3 billion kg of air pollutants are removed by plants in the UK each year



over a third of the 454 native tree species in Europe are considered threatened



80% of the food we eat is provided by plants



Half of the world's population rely primarily on natural medicines for their health care



15,000 litres of water can be intercepted by a mature evergreen tree each year, mitigating flood risk

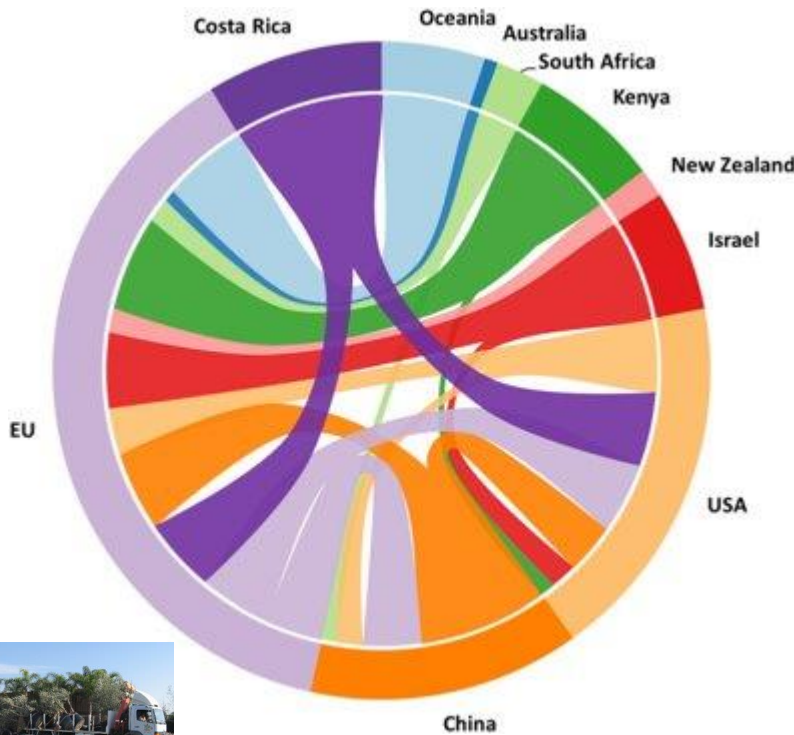


Up to 74% of the social costs of greenhouse gas emissions could be avoided by having a greater plant based diet



Increasing pest threats reaching the UK

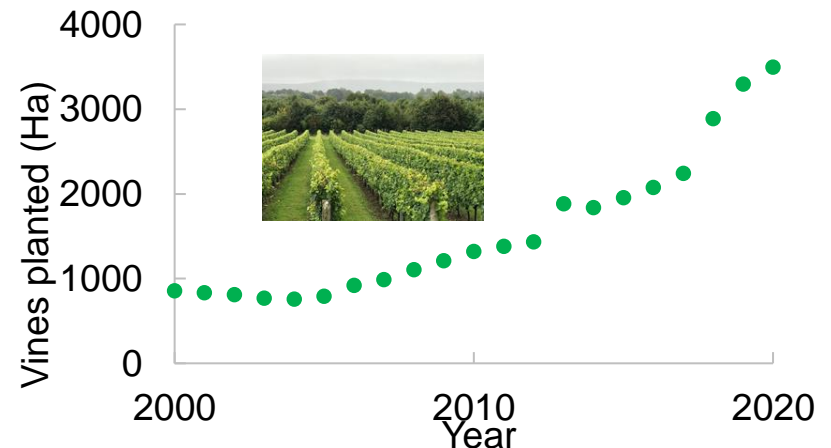
Increasing Global Trade



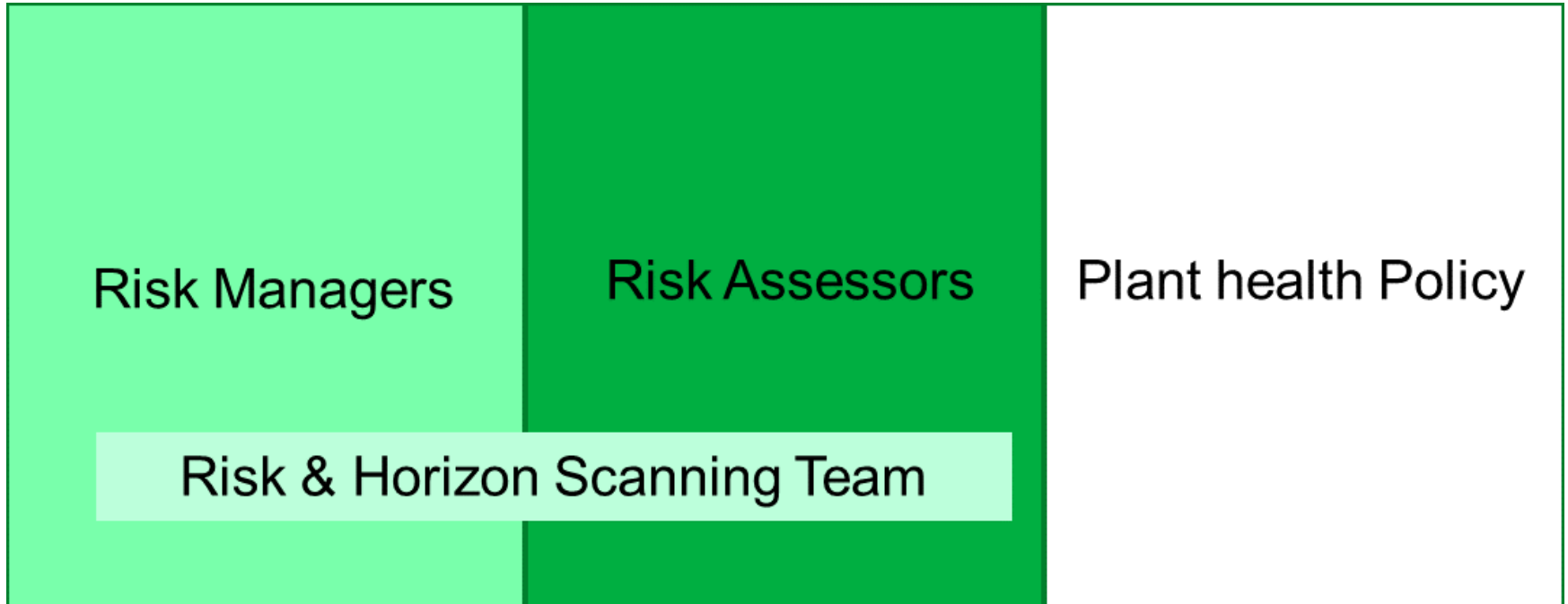
Trade of plants and plant parts: widths are proportional to 2015 import & export values.



Climate Change: Increasing production & pest range shifts



Risk & Horizon scanning Team



Risk Analysts

Team members are from a scientific / technical background and provide an advisory bridge between science and policy / operations

Mostly based in Sand Hutton, York



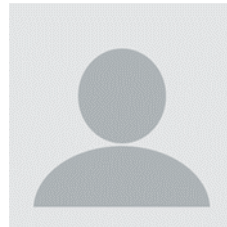
Alan MacLeod



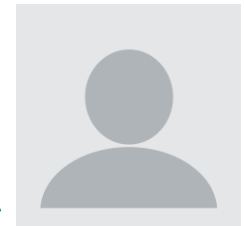
Helen Anderson



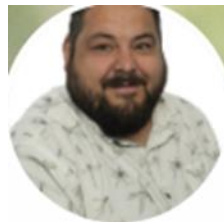
Andrew Budden



Anastasia Korycinska

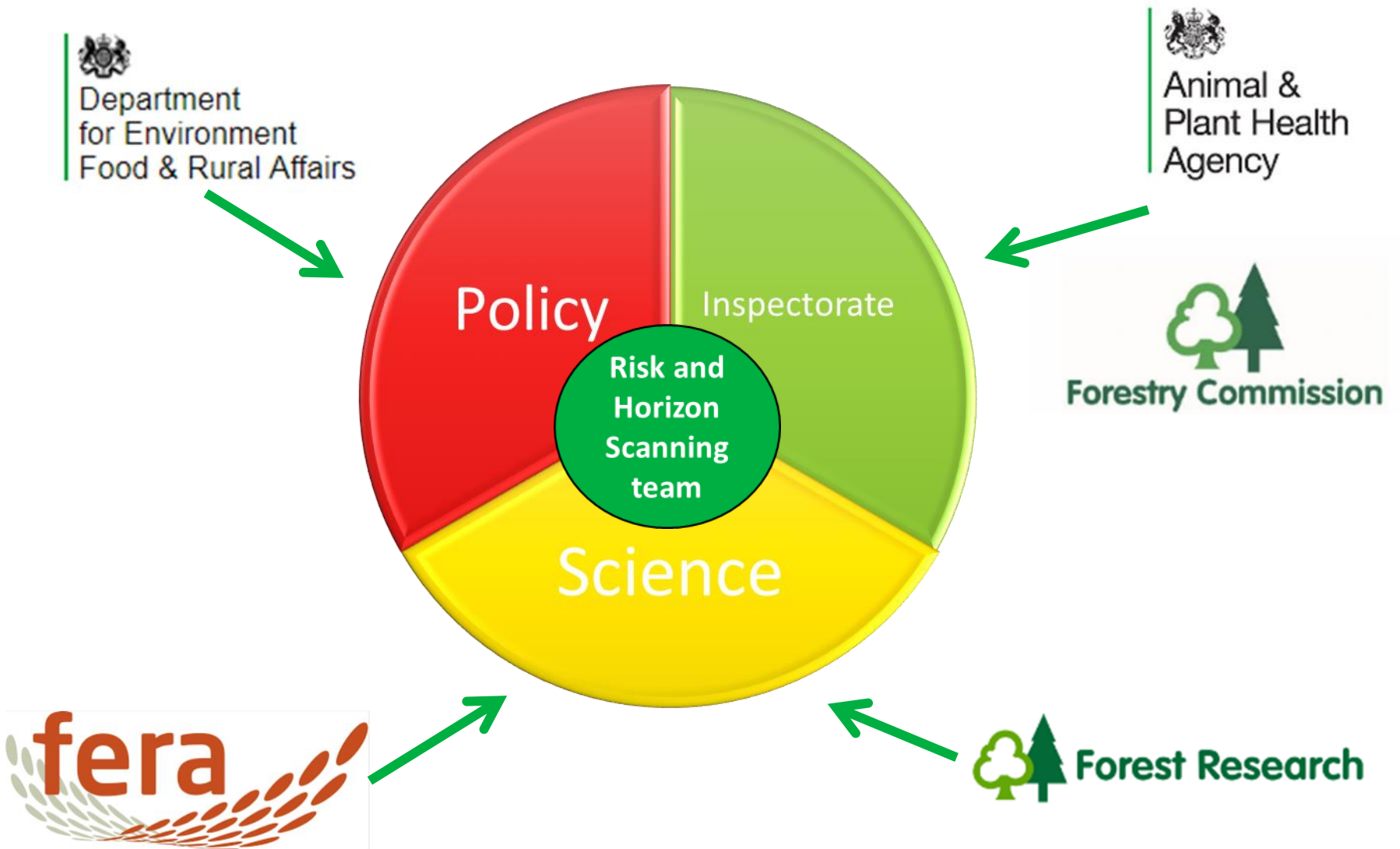


Duncan Allen



Claire Gent





Prioritisation of pests – The Plant Health Risk Register

UK Plant Health Risk Register



Department for Environment, Food & Rural Affairs

UK Risk Register Details for *Rhagoletis pomonella*

This record was last updated on 07/01/2021

Common Names

show / hide

- Apple fruit fly
- Apple maggot
- Apple maggot fly
- Maggot, apple
- Worm, railroad

Scenario and Pathways

Scenario for Risk Register

show / hide

- Pest is introduced

Pathway Assessed for Entry to UK

show / hide

- Plants for planting (except seeds bulbs and tubers)
- Fruits or vegetables

Common Pathways

show / hide

- Plants for planting (except seeds bulbs and tubers)
- Fruits or vegetables
- Soil/growing medium

Risk Ratings and Current Mitigations

Unmitigated Risks

show / hide

Likelihood [1 - 5]	3
Spread [1 - 5]	3
Impact [1 - 5]	5
Value at Risk [1 - 5]	4
Likelihood x Impact [1 - 25]	15
UK Relative Risk Rating [1 - 125]	60

Current Mitigations

show / hide

Key mitigation for pest	
Regulated quarantine pest	
Regulation	✓
Surveillance	✗
Industry Scheme	✗
Contingency Plan	✗
Awareness	✗
Research	✗

Mitigated Risks

show / hide

Likelihood [1 - 5]	2
Spread [1 - 5]	3
Impact [1 - 5]	5
Value at Risk [1 - 5]	4
Likelihood x Impact [1 - 25]	10
UK Relative Risk Rating [1 - 125]	40

Potential pest threats screened through the UK Plant Health Risk Register

There are **85 pests** that attack apples

Orchard crop

Forestry

90 pests can attack oak trees

160 pests threaten tomato production in the UK

Greenhouse crop

Field grown crop

165 pests threaten potato cultivation in the UK

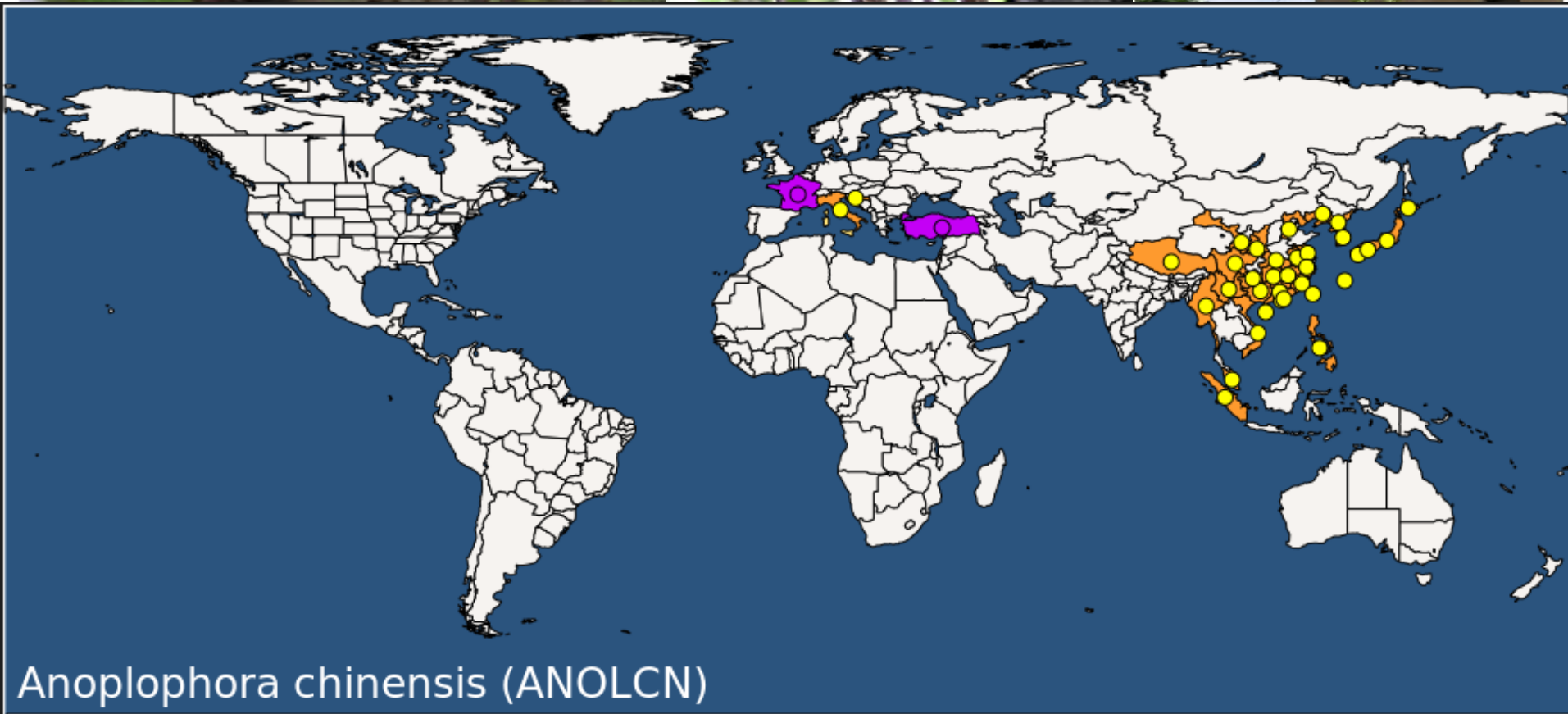
Ornamental crop

130 pests endanger the UK rose industry

Current high-risk pests



Anoplophora chinensis (Citrus Longhorn Beetle)



Anoplophora chinensis (ANOLCN)

● Present ● Transient

2024-03-12
(c) EPPO <https://gd.eppo.int>



Anoplophora glabripennis (Asian Longhorn Beetle)



Leptinotarsa decemlineata (Colorado Potato Beetle)



Agrilus planipennis (Emerald Ash Borer)

RS&GIS

Legend

U.S. and Canada Detections, 2022

- 2002
- 2003
- 2004
- 2005
- 2006
- 2007
- 2008
- 2009
- 2010
- 2011
- 2012
- 2013
- 2014
- 2015
- 2016
- 2017
- 2018
- 2019
- 2020
- 2022

Labrador Sea

er website >

**BURN IT
WHERE YOU
BUY IT**

Stop the Emerald Ash Borer
Don't Move Firewood > StopTheBeetle.info

5471804

powered by esri

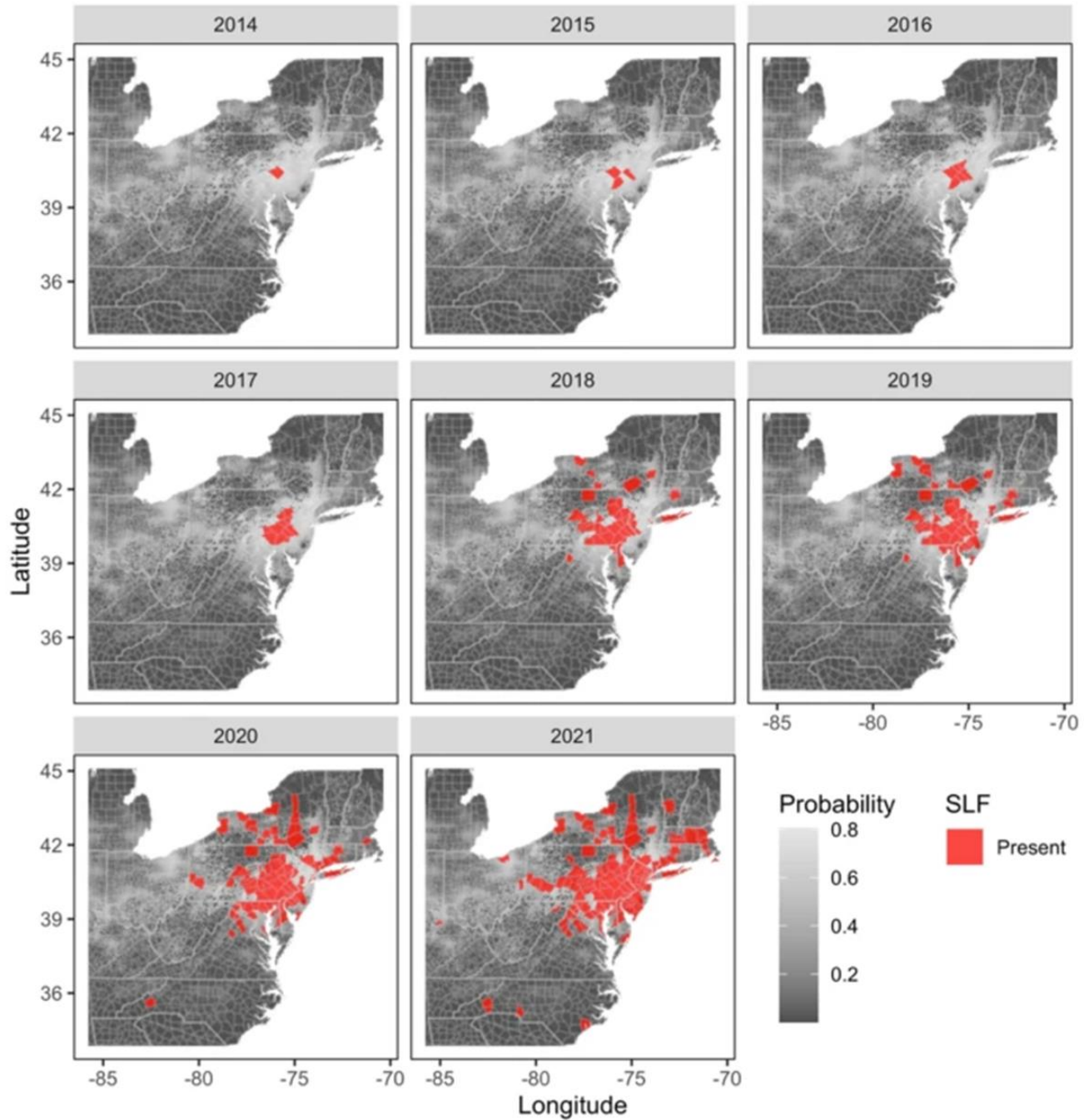
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Pests on the Horizon





Figure 5





Pest threats to UK

- There are new pests emerging all the time
- The Plant Health Risk Register is a useful screening tool to assess the threat new pests pose
- Key pests to be aware of include; Anoplophora beetles, **Colorado Potato Beetle**, and keep an eye out for **Emerald Ash Borer**
- The Plant Health Portal is a useful source of information for Pest Alerts and Pest Factsheets: <https://planthealthportal.defra.gov.uk/>
- If you see any of the pests mentioned contact the relevant Plant Health officials

Plant Health officials contact details

For **England and Wales**, contact your local **APHA Plant Health and Seeds Inspector** or the **PHSI Headquarters** in York.

Tel: 0300 1000 313

Email: planthealth.info@apha.gov.uk

For **Scotland**, contact the **Scottish Government's Horticulture and Marketing Unit**: Agricultural crops contact the local RPID officer:

<http://www.gov.scot/Topics/farmingrural/Agriculture/AOcontacts/contacts>

For non-agricultural crops, email: hort.marketing@gov.scot

For **Northern Ireland**, contact the **DAERA Plant Health Inspection Branch**:

Tel: 0300 200 7847 Email: planthealth@daera-ni.gov.uk

Web: <https://www.daera-ni.gov.uk/topics/plant-and-tree-health>