

Tree Health in Wales

Timber Passporting and Plant Health Workshop
Bangor, 14th October 2019
Brecon, 15th October 2019

Tom Jenkins
Head of Forest Research in Wales

- European legislation
Directive 2000/29/EC
- Domestic legislation
Plant Health Act 1967
Plant Health (Forestry) Order 2005
Government of Wales Act 2006
- 1 April 2013
Natural Resources Body for Wales (Functions)
Order 2013

Plant Health Act 1967

- An Act for the control of pests and diseases injurious to agricultural or horticultural crops or to trees and bushes.
- “Competent authority” power to make secondary legislation to control the introduction into and spread of pests in Great Britain; and the spread of pests by export from Great Britain.
- Welsh Ministers are the competent authority for Wales as regards the protection of forest trees and timber and otherwise.

Plant Health (Forestry) Order 2005

- Principal instrument for implementing EU plant health requirements in respect of trees and forestry material.
- Regulatory control belongs to the Welsh Ministers and inspectors authorised by them.
- Inspectors have wide powers to impose a variety of different prohibitions and requirements to control the spread of pests.

Government of Wales Act 2006: Section 83 Arrangements

- Memorandum of Understanding:
 - Welsh Government;
 - Natural Resources Wales; and
 - Forestry Commissioners.

Government of Wales Act 2006: Section 83 Arrangements



**Cyfoeth
Naturiol
Cymru
Natural
Resources
Wales**

“Every day on the
ground matters.”



Forestry Commission
(Forestry Commissioners)

“Wider national
issues.”

Wales Tree Health Strategy

- July 2013 the Welsh Government established the Wales Tree Health Steering Group – broad membership.
- October 2013 the group published an overarching Tree Health Strategy for Wales.
- The key objective of the Wales Tree Health Strategy is to:

'Preserve the health and vitality of trees and woodlands in Wales through strategies which exclude, detect, and respond to, existing and new pests and pathogens of trees, whether of native or exotic origin.

Take proactive measures to reduce the impact of pests and diseases on trees and woodlands in Wales.'

Briefly introduce key diseases/pests plus management strategies ...

- Phytophthora – Chris to cover / has covered
- Ash dieback – Mark to cover / has covered
- OPM – Mark to cover / has covered
- Ips (and related Scolytid threats) – next couple of slides + biology + state of play

Ips typographus

- The larger eight-toothed European spruce bark beetle (*Ips typographus*) is considered a serious pest on spruce in Europe and was found in the wider environment in England in 2018 during routine plant health surveillance activity.
- As part of ongoing multi-agency “horizon scanning” and “preparedness” activities for plant pests and diseases, a 21 page contingency plan had already been published by the FC in October 2015, setting out the steps to be followed in the event of an interception in GB.
- This contingency plan was implemented immediately following the 2018 interception.
- The *Plant Health (Ips typographus) (England) Order 2019* came into force on 16th January 2019.



Ips typographus

- The larger eight-toothed European spruce bark beetle (*Ips typographus*) is considered a serious pest on spruce in Europe and was found in the wider environment in England in 2018 as part of routine plant health surveillance activity.
- The beetle is mainly a secondary pest, preferring stressed or weakened trees. However, under the right environmental conditions, beetle numbers can increase enough to result in attacks on healthy trees.
- If left uncontrolled, the beetle, in association with pathogenic fungi (particularly the blue stain fungus *Endoconidiophora polonica*), has the potential to cause significant damage to Britain's spruce-based forestry and timber industries.



Picture: Gyorgy Csoka, Hungary FRI, Bugwood.org

5371139





Picture: Milan Zubrik, FRI Slovakia, Bugwood.org

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Ips typographus

- Adult beetles hibernate over winter under the bark of trees, logs and in leaf litter. They then re-emerge in spring, when the temperature rises above 20°C.
- The beetle prefers stressed or weakened trees *e.g.* windblown, damaged and recently felled spruce trees, where, under the right environmental conditions, beetle numbers can increase. Inspection of trees in this category should be a priority.
- Also look for standing individual and groups of dead trees. This arises when the beetles 'mass attack' trees, overcoming the trees' usual defences by a combination of large numbers and blue stain fungus carried by adult beetles. Under the right environmental conditions, this phase can lead to extensive tree deaths.



Picture: Gyorgy Csoka, Hungary FRI, Bugwood.org

UGA1231225



Picture: Maja Jurc, University of Ljubljana, Bugwood.org

UGA2105002

TreeAlert

- Please use TreeAlert to report any tree health concerns you may have.

treealert.forestry.gov.uk

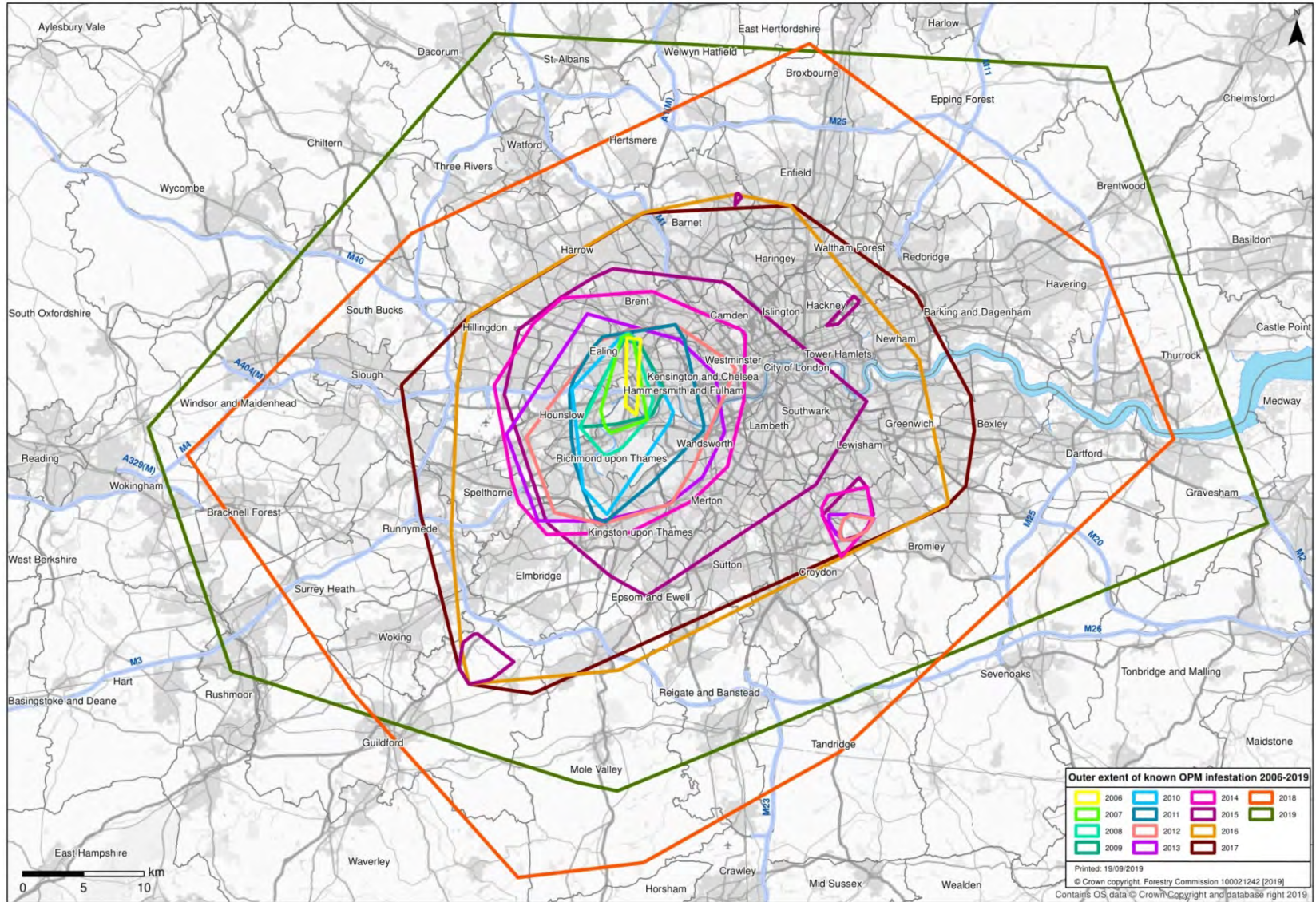
Oak Processionary Moth

- The following slides are courtesy of:

Andrew Hoppit MICFor
Oak Processionary Moth Project Manager
Forestry Commission (London).

Where did OPM come from?





Document Path: G:\LiveData\UC1348_OPM\MapDocs\OverallSummary\AnnualSummary.mxd



Document Path: G:\LiveData\UC1346_OPMMapDocs\OverallSummary\AnnualSummary_UK_2018.mxd





21st March 2014

11th April 2015

9th April 2016

31st March 2017

16th April 2018

1st April 2019



Ged Hayward-APHA









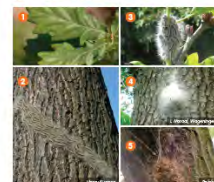
Silken trail

Budget £1.15million

- Survey (£500k)
- Control (£450k)
- Database Support (£70k)
- Research/Evidence, Comms and Materials (£130k)

Identifying OPM caterpillars

- 1 They live almost exclusively in oak trees, which are identifiable by their distinctive leaves.
- 2 They move in nose-to-tail processions, in oak trees or on the ground, hence their name.
- 3 They often cluster together.
- 4 They build white, silken webbing trails and nests – usually dome or saucer-shaped – on oak trunks and branches (not among the leaves).
- 5 The nests soon become discoloured.



If you see nests or caterpillars:

- Follow the advice in this leaflet for staying safe.
- Report it using our free Alert on-line reporting form at forestresearch.gov.uk/opm (preferred), or
- e-mail it to opm@forestrycommission.gov.uk, or telephone it to 0300 067 4442.

But first, please:

- **Check** that they're in or near an oak tree - OPM caterpillars usually only attack other trees if they run out of oak leaves to eat.

For further information

For OPM tools and resources, visit forestresearch.gov.uk/opm

Tel: 0300 067 4442
E-mail: opm@forestrycommission.gov.uk

Health information is available from NHS Choices at nhs.uk/conditions/insect-bites-and-stings

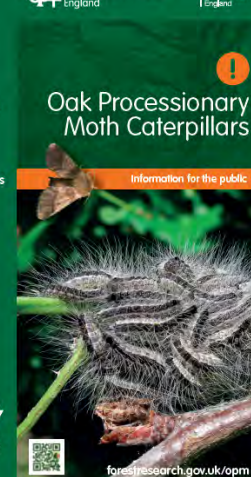
The Forestry Commission will consider all requests to make the content of publications available in alternative formats. Please call 0300 867 4000.

For more information on tree pests and diseases, visit gov.uk/government/collections/tree-pests-and-diseases

Forestry Commission England
Public Health England

Oak Processionary Moth Caterpillars

Information for the public



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Approved by Forestry Commission England, 150 Bristol
Bathurst Park, Colchester Lane, Bristol BS15 1LJ

Approved by Public Health England

forestresearch.gov.uk/opm

	Number	Cost	Unit cost
Trees Surveyed	35k	£493k	£14.09
Trees Sprayed	48.5k	£433k	£8.93
Pheromone traps deployed	125	£1.4k	£11.2

- There were 1136 issued for spraying in 2019
- Nest removal 178
- 84 issued for interception sites



Many enquiries recorded re 'other' caterpillars:

Reporting sightings of potential OPM but subsequently identified as the following species:

Brown-tail;
Box Moth;
Buff-tip;
Gypsy Moth;
Lakey Moth;
Knot-Grass;
Grey Dagger;
Drinker moth;



Reports of other species- sawfly larvae, fruit pods, acute oak decline

- 2014 - 12 OPM Other species not recorded
- 2015 - 16 OPM Other species not recorded
- 2016 - 17 OPM 9 Other species
- 2017 - 27 OPM 5 Other species
- 2018 - 43 OPM 26 Other species
- **2019 - 54 OPM 13 Other species (brown-tail)**

These are numbers of reports not individuals. So for example, one report could include more than one person being affected by OPM e.g. a group of school children.



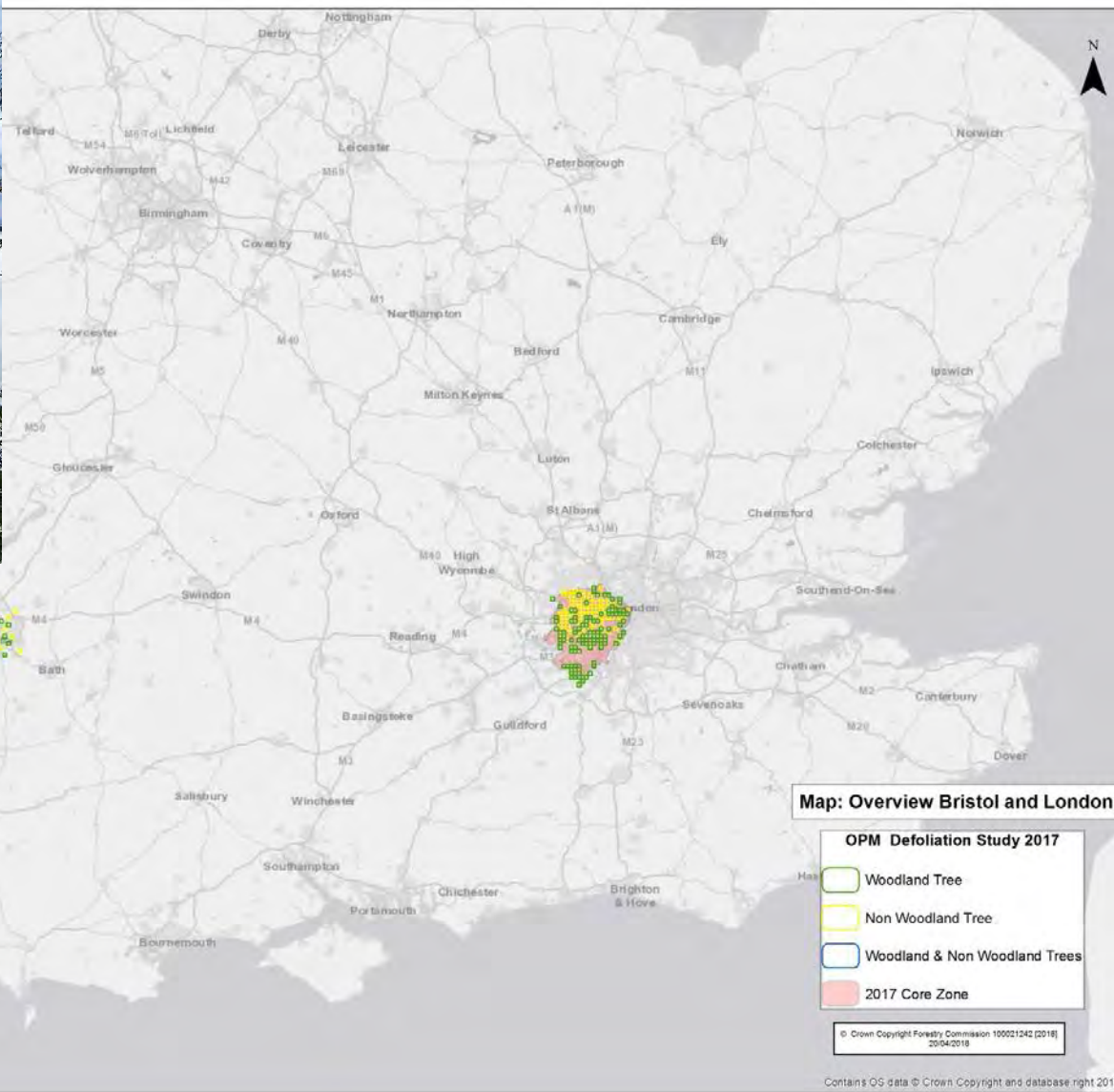
25th July 2019 moth was
observed in pheromone
traps



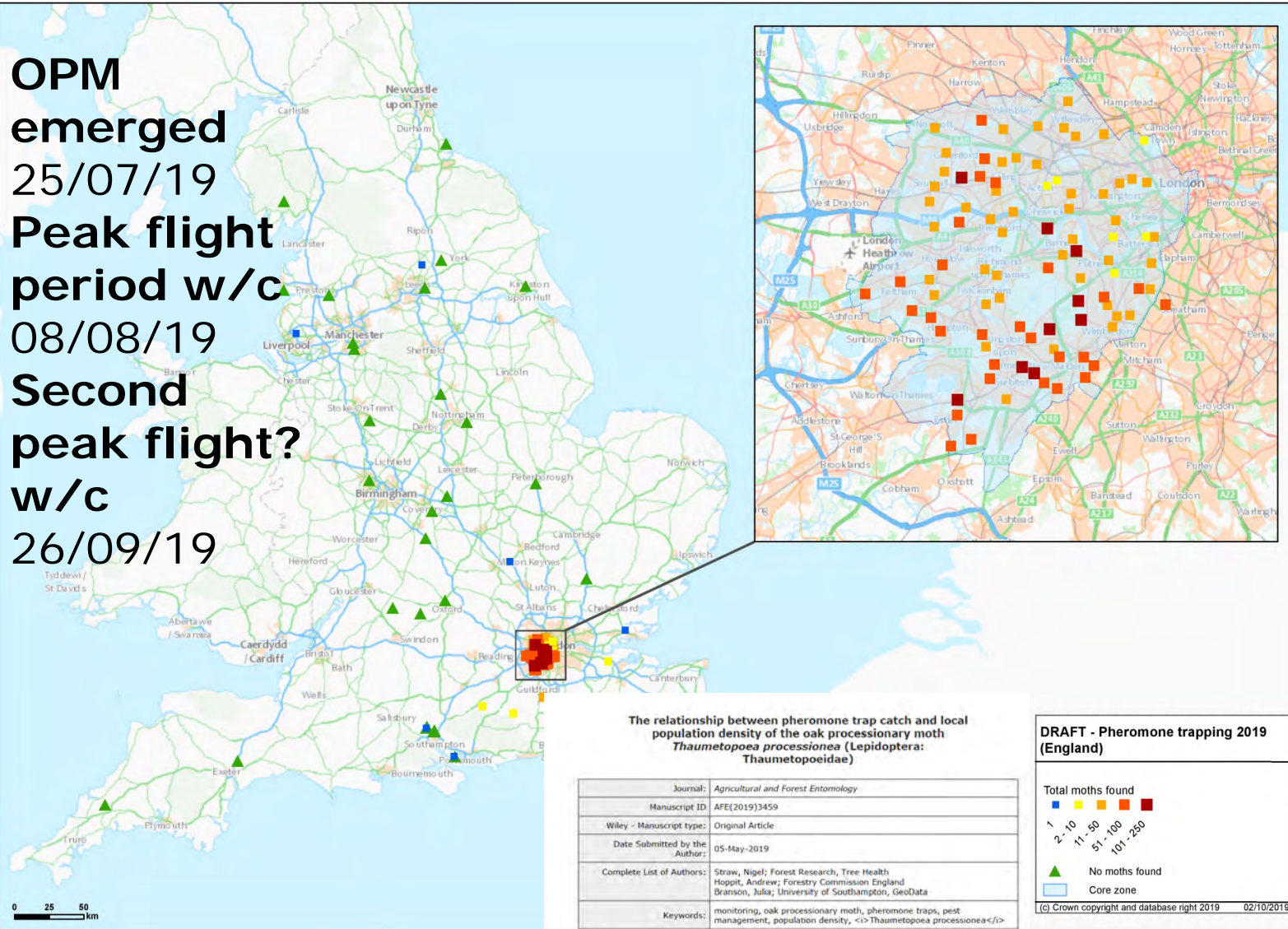


Number Sites Sprayed	Number Trees Sprayed
1052	24,250
	<i>Two treatments at most sites, therefore around 48,500k individual trees were sprayed</i>





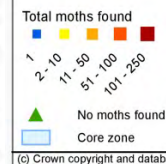
OPM emerged
25/07/19
Peak flight period w/c
08/08/19
Second peak flight? w/c
26/09/19



The relationship between pheromone trap catch and local population density of the oak processionary moth *Thaumetopoea processionea* (Lepidoptera: Thaumetopoeidae)

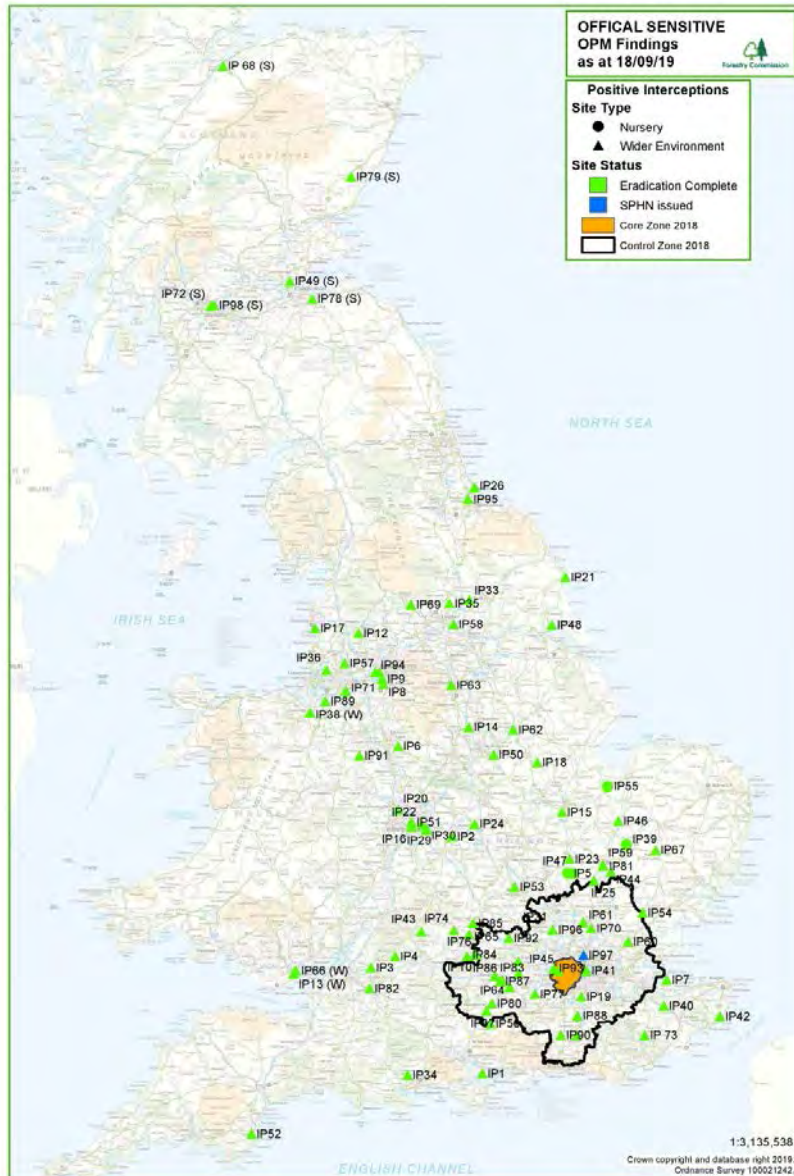
Journal:	Agricultural and Forest Entomology
Manuscript ID:	AFE(2019)3459
Wiley - Manuscript type:	Original Article
Date Submitted by the Author:	05-May-2019
Complete List of Authors:	Straw, Nigel; Forest Research, Tree Health Hoggitt, Andrew; Forestry Commission England Branson, Julia; University of Southampton, GeoData
Keywords:	monitoring, oak processionary moth, pheromone traps, pest management, population density, <i>Thaumetopoea processionea</i>

DRAFT - Pheromone trapping 2019 (England)

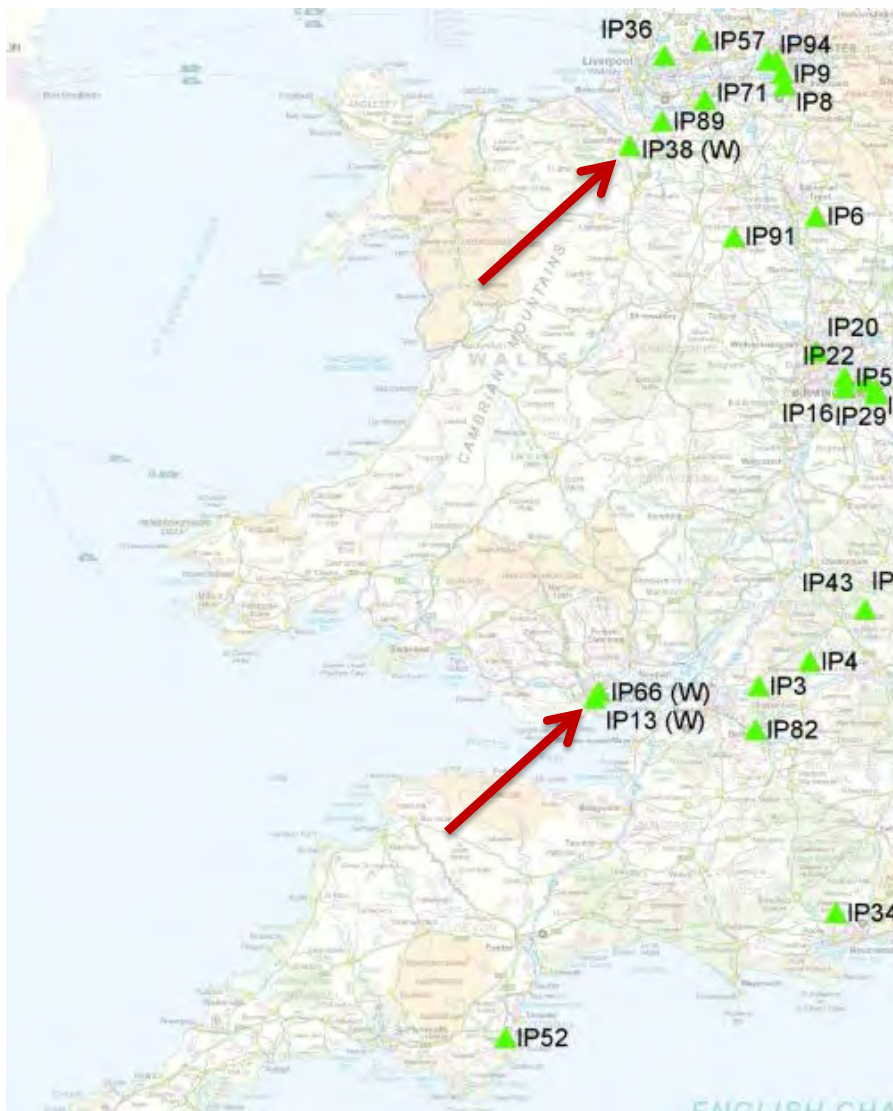


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- 98 positive findings
- 6 in Scotland
- 3 in Wales
- 89 in England:
 - 5 nursery sites and
 - 84 wider environment



- 98 positive findings
- 6 in Scotland
- 3 in Wales
- 89 in England:
 - 5 nursery sites and
 - 84 wider environment















National Incident Action Plan

Incident Ref No:	002-2019	Report Serial No:	24
Incident Location:	National		
Date:	15 August 2019	Time:	09:30
Incident Controller:	Anna Brown	Deputy Incident Controller:	Andy Hall

Incident Type

Findings of Oak Processionary Moth in trees imported from mainland Europe.

Incident Category – (Check one box)

Minor		Moderate	
Major – major emergency		Major – significant	X
Major – serious		Major – catastrophic	

Incident aim	To identify all trees infested with OPM imported from known infested European nurseries and take necessary remedial action to eradicate OPM from outside existing core zone.
Incident objectives (Give first 4 only)	<ul style="list-style-type: none"> Determine extent of wider environment distribution of Oak Processionary Moth Undertake operational activities to eradicate Oak Processionary Moth where detected outside existing containment zone Prevent establishment of Oak Processionary Moth outside of existing containment zone
Incident Strategies	<ul style="list-style-type: none"> Trace forward of trees from known infested imports to identify final client Site surveys to confirm presence or absence of OPM Spraying and destruction of nest material and trees as necessary Voluntary ban on imports (tbc)
Resources available	<ul style="list-style-type: none"> Forestry Commission Tree and Plant Health teams Forestry Commission Area, National Office and District teams Forest Research & TSU APHA inspectors



Other Agencies

Role	Name, mobile and agency
	Jane Barbrook, APHA Jane.Barbrook@apha.gov.uk
	Lisa Smith, Defra Lisa.smith@defra.gov.uk
	Andrea Deol Andrea.Deol@defra.gov.uk
	Jason Pollock jason.pollock@defra.gov.uk
	Jim Dewar Jim.Dewar@forestry.gov.scot
	Stewart Snape Stewart.Snape@gov.scot
	Jason Rumens Jason.Rumens@gov.scot
	Gail Merriman, Welsh Government Gail.merriman@gov.wales
	Mark Hilleard, Welsh Government Mark.Hilleard@gov.wales
	Andrew Wright, NRW Andrew.Wright@cyfoethnaturiolcymru.gov.uk

Key OPM actions in Wales, 2019

- 05 July – suspected OPM finding reported via Tree Alert at Cardiff Central train station.
- 11 July – SPHN for IP13(W) Cardiff Central train station has been issued. Eradication expected to be completed by Sunday 14 July.
- 11 July – Welsh Government working with Cardiff City Council to draft a press release about the positive finding of OPM and remedial action being undertaken.
- 15 July – New positive site identified at IP38(W) Deeside (one of 10 such sites that day).
[Reported by a tree professional via Tree Alert.]

Key OPM actions in Wales, 2019

- 30 July – The Wales OPM IMT has agreed to erect pheromone traps in Roath Park, Cardiff.
- 01 Aug – Pheromone traps are being deployed in Glasgow and Cardiff.
- 15 Aug – Pheromone trap results suggest that peak flight is over in London.

Importantly, “lessons learned” were also recorded by the National (UK) Incident Management Team and by the Wales Outbreak management Team.

ITV REPORT

12 July 2019 at 6:02am

Trees to be removed after moth pest found in Cardiff



Credit: Lee Smith

The Welsh Government says the Oak Processionary Moth (OPM) has been found on trees planted in Cardiff Central Station.

The trees were due to be sprayed overnight and will be removed later today.

Spraying with the artificial insecticide deltamethrin, prior to destruction.



Three pesticides are licensed for control of the larvae of oak processionary moth (OPM): *Bacillus thuringiensis* var *kurstaki* (BT), diflubenzuron and deltamethrin.

Disease Management Strategies

- Essential in coping with the increasing numbers of biotic threats to trees and woodlands in Wales.
Both *P. ramorum* and ash dieback are of greatest immediate concern in Wales.
- Strategies need to take into account the wider environmental economic and social consequences of these pathogens and not see their management as an end in itself, or one that favours one sector above another.
- They also need to be applied equitably to both the Welsh Government owned woodland estate managed by NRW and woodlands in the private sector.
- Both Timber and Plant Passporting will form an integral part of disease management strategies in Wales.

Disease Management Strategies

- ***P. ramorum* DMS** designed to manage the disease outbreak, accepting that due to its nature, its rapid spread across Wales and the estimated cost of implementation, eradication is not an option.
- Recognises impact on woodland owners and timber processors but also consider the potential for the disease to have a significant adverse impact on the wider, non-woodland environment. July 2013 the Welsh Government established the Wales Tree Health Steering Group – broad membership.

P. ramorum recovery programme

- Programme provides a structure for Welsh Government, NRW and private sector to come together to consider the impact of the disease on, and the recovery of, infected woodland.
- Desired outcome is to enable woodlands to continue to make a positive contribution to the delivery of the Welsh Government's agenda for Green Growth and Woodlands for Wales by supporting woodland owners in managing the impact of the disease.
- The Programme covered and made recommendations on specific issues including regulation, harvesting and marketing of timber, the social impact of large scale harvesting operations and the re-stocking of the woodland estate.

Thank you.

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Environment Centre Wales

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