Press release: Mosquito treatment in Ashford, Kent

Action was taken to eradicate eggs and larvae of an invasive species of mosquito, Aedes albopictus (Asian tiger), which has become more common in Europe during recent years. Though the mosquito poses no immediate risk to public health, the decision was to treat the area and prevent it becoming established in the UK.

PHE and Ashford Borough Council have ensured residents and businesses in the area have been fully informed of all treatment taking place and both agencies are working closely with Kent County Council.

The eggs and larvae were discovered through PHE's ongoing mosquito surveillance programme which monitors 30 UK ports and airports. Since invasive mosquitoes became more widespread in France, surveillance has been conducted by PHE at motorway service stations in south east England on the main routes from the south coast ferry ports and Eurotunnel.

Dr Jenny Harries, Deputy Medical Director at Public Health England, said:

> PHE operates a surveillance system to monitor mosquito species and check for any that are new to the UK.
>
> Through these activities we identified a small number of eggs and larvae from the Aedes albopictus (Asian tiger) mosquito in traps at Ashford International truck stop. Enhanced monitoring of the area was carried out and no further evidence of this mosquito has been found.
>
> As a precaution we advised the local authority on measures to eradicate the mosquito and remove any suitable habitats in the area. We will continue to monitor the situation closely through our surveillance system. There is no immediate risk to public health in the UK.
>
> We are also grateful to the truck stop for their cooperation and support as a responsible business.

This is the second time this species has been found in the UK, and is likely to have resulted from the importation of one adult female across the Channel via vehicular traffic. A similar discovery was made by PHE in Folkestone last September. Adult mosquitoes can only fly a very short distance and so control measures are implemented up to a 300 metre radius.

The presence of a mosquito does not mean that it is carrying any diseases as they first need to bite an infected person and then move on to infect a second individual. There are currently no cases of diseases known to be

carried by this mosquito circulating in neighbouring countries and therefore no risk to health locally.

Andrew Scott-Clark, Director for Public Health in Kent added:

> This has been a great example of close working between local government and Public Health England to safeguard people in Kent.
>
> The surveillance system has been highly effective in detecting this invasive species and enabled a swift response from Ashford Borough Council to treat the site and ensure this species does not become established.
>
> Having been consulted throughout, I can assure people in Kent that this poses no current risk to the public's health.

PHE and Ashford Borough Council will continue to monitor the site for any further signs of invasive mosquitoes and ensure there are no suitable habitats.

PHE has run a surveillance system with partners (Port Health Officers and Edge Hill University) since 2010. This now includes surveillance at more than 30 UK sea and airports and at the largest used tyre importers. Since invasive mosquitoes have become more widespread in France, surveillance has been conducted by PHE at motorway service stations in the south east of England on the main routes from the south coast ferry ports and Eurotunnel (since 2014). The surveillance system combines a number of traps that detect mosquito eggs, host-seeking and blood-fed mosquitoes and larval sampling.

PHE have also run a mosquito recording scheme since 2005, receiving mosquitoes from the public and environmental health for identification. PHE encourage the public to continue to submit mosquito samples for identification through a collection scheme. Please note, all samples returned by the public are of native mosquito of which there are known to be more than 30.

Aedes albopictus (A. albopictus)

Limited ability to fly

The species has low ability to fly and therefore the focus for control measures needs to be across a 300 metre radius area around the truck stop. There are fewer than 10 residential properties in the area and we have made contact with all of the households and are working to remove aquatic habitats found at these properties.

These findings indicate individual mosquitoes that have travelled into the UK via traffic, and laid eggs.

There is no indication of the source of the mosquito eggs captured at the site but given the location, importation of an adult mosquito by a vehicle

arriving from Europe entering through one of the ports is the most likely route. As a precaution, we have recommended that local authorities take steps to remove potential mosquito breeding grounds in the area.

There is no indication this mosquito is carrying any virus that is a risk to human health.

Low risk to the public

As a result of PHE's surveillance network we were able to identify the mosquitoes and take prompt action to eradicate them at an early stage. We will monitor the situation closely to ensure no further mosquito eggs or larvae.

Characteristics of an A. albopictus mosquito

This is a small mosquito with characteristic black and white striped legs, a white line on the thorax, and black and white markings elsewhere on the body. It is easily confused with a native species that is much larger, and also has similar markings. More information can be found on this at the PHE website.

No evidence of disease risk

The presence of a mosquito does not mean that it is carrying any diseases. For an A. albopictus mosquito to carry a virus, it needs to first bite an infected person. Incidences of this in Europe are not common and there have only been a few instances of dengue and chikungunya in Southern Europe and only where the mosquitoes are established.

There is currently no evidence to suggest A. albopictus is established in the UK.

There is no evidence to suggest that Zika can be carried by A. albopictus. It has been implicated in the transmission of other viruses like dengue and chikungunya.

First find in 2016

Mosquito eggs found in one trap near Folkestone were confirmed as A. albopictus on 30 September 2016. This was the first detection of this non-native mosquito species in the UK. Enhanced surveillance was implemented. There was no further evidence of them at the Folkestone site despite extensive surveillance.

Surveillance helps prevent invasive species establishing

A. albopictus has shown an ability to adapt to its environment and can lay diapausing eggs that survive winters in temperate areas, which means they can 'hibernate' and hatch the following spring.

Following the first detection, all other traps at the location were re-surveyed and found to be negative.

Enhanced surveillance is being conducted at the site and in the vicinity, including the deployment of additional traps and larval sampling. So far, no further evidence of A. albopictus has been found, and there is no evidence so far that it has become established.

Image courtesy of James Gathany via CDC Photo library.

Press release: Official opening of £3million North East flood scheme

The multi-million pound Lustrum Beck Flood Alleviation Scheme has been officially opened.

The Environment Agency and Stockton-on-Tees Borough Council have worked together on the £3million award-winning scheme, which included replacing Londonderry Bridge and building new flood walls along the beck.

The scheme reduces the risk of flooding to over 150 homes in the town.

An official opening event on 26 July marked the completion of the first phase of the project, while residents were invited to a community drop-in event and walking tour of the defences to find out how they are better protected from flooding.

The lifting screen at Primrose Hill

New flood defences

Stockton-on-Tees Borough Council replaced Londonderry Bridge, on Durham Road, as part of the project. This was completed in December 2016.

The Environment Agency has built new flood walls along the beck at Bedford Street and Duddon Walk, which tie in with a raised embankment at Newtown. Work to tie in the new defences with the new bridge was completed earlier this year.

The Environment Agency also installed a new lifting screen at the culvert at Primrose Hill and had previously built a new flood wall along Bishopton Road.

Environment Agency Area Director Oliver Harmar said:

> This is a fantastic project with some unique features which has increased flood protection to over 150 properties.
>
> We've worked closely with Stockton-on-Tees Borough Council throughout which has enabled us to provide Stockton with an

> excellent scheme with a high level of protection.
>
> And we're not finished yet. The next phase involves looking at storing flood water further upstream at Coatham Woods, as well as creating new habitat.
>
> This makes Lustrum Beck a great project which will see us combine traditional engineering solutions with natural flood management.

The new Londonderry Bridge

Natural flood management

The Environment Agency is looking at options to store flood water further upstream of Stockton at Coatham Woods, and is working with Newcastle University and the Forestry Commission to explore designs.

And it's also exploring opportunities to create up to 30 hectares of water dependent habitat, including improved habitat at Sixfields.

Construction of these features is expected to start later this year and will take approximately three years.

Councillor Mike Smith, the Council's Cabinet Member for Environment and Transport, added:

> The replacement of Londonderry Bridge was an essential part of the broader scheme to help reduce the flood risk to homes.
>
> "The old bridge was a major contributor to serious flooding because its arches obstructed the beck's flow. Replacing it with a new, single span bridge has reduced the risk of the kind of devastating flooding we've seen in recent years.
>
> We'd like to thank local people for their patience and understanding throughout this project, and it's good to give them this opportunity to find out how the new flood protection measures all work.

The Lustrum Beck flood scheme has won a number of awards, including the Sustainability award at Constructing Excellence North East 2017, it scooped the top award for Partnership Project of the Year at the Flood and Coast Project Excellence Awards, and was highly commended at the Robert Stephenson Awards run by the Institution of Civil Engineers.

It's important residents understand their flood risk and know what to do during a flood. Find out more about how to prepare for flooding

Press release: Fish stocks boost for north east rivers

The Environment Agency has released 12,000 young grayling to give fish stocks a boost in north east rivers.

The fish were released this week into the rivers Deerness, Browney, Blyth and Skerne as well as Langley Beck at Staindrop and Aldbrough Beck near Darlington.

It's part of the Environment Agency's ongoing plans to develop and restore rivers in the region, targeting those which have been affected by pollution or where barriers affect fish passage.

The fish were reared at the Environment Agency's fish farm near Calverton, Nottinghamshire, using funding from rod licence sales.

Help the process of natural recovery

Fisheries Officer Paul Frear was out releasing some of the grayling in the south of the region on Tuesday (1 August). He said:

> We're pleased we can provide these fish for restocking as part of our commitment to rod licence paying anglers and to help the process of natural recovery in waters which have been impacted by pollution or suffered poor water quality.
>
> While it's a really important aspect of our work, it's one of many things we do together with our partners to develop fisheries, including reducing the effects of pollution, improving habitat and removing barriers to fish migration.

Grayling released into Langley Beck

Improved water quality

The Environment Agency releases fish into our waterways regularly. Fisheries officers target fish stocking activity in response to impacts on local rivers and using data from national fish surveys to identify where there are problems with poor breeding and survival.

Many of our industrialised rivers have improved dramatically in water quality in the last 30 years and targeted and appropriate restocking has helped the restoration of natural fish stocks and viable fisheries.

Angling is a great way for everyone to keep healthy and enjoy the natural

environment. All rod licence income is used to fund work to protect and improve fish stocks and fisheries.

Anyone who wants to go fishing needs to buy a fishing licence. A full annual licence costs £30 (short term and some concessionary licences are also available) and are available online.

Press release: Anglers urged to report pink salmon catches

Recently a non-native pink salmon was caught in the River Tyne at Wylam and around 100 are believed to have been caught in waters off the North East and Yorkshire coast in recent months.

Further afield, anglers have confirmed catches in a number of rivers in Scotland and in western Ireland.

The Environment Agency is collecting vital data about sightings so officers can monitor the situation to determine any impact on the local environment and species. Data collected will help the Environment Agency, fisheries researchers and other organisations with an interest in fisheries management in the United Kingdom, Ireland and Scandinavia, better understand how to manage the arrival of pink salmon in the UK .

Unusual find

Jonathan Shelley from the Environment said:

> It is quite unusual to find pink salmon in our waters and we're keen anglers know we're aware of the sightings and we're investigating.
>
> I'd urge anglers to contact us if they see any non-native salmon in the waters, with a date, location and if possible a photograph, which would really help us identify them and build up a picture of where they are.
>
> We are monitoring the situation and early indications is that there is no major impact on wild fish stocks at this point in time.

The non-native pink salmon

The native Atlantic salmon

Advice for anglers

Anglers holding a salmon licence who catch pink salmon are asked not to return the fish to the water. Instead they are asked to dispatch of them humanely and, if possible, make the fish available to the Environment Agency for inspection and further analysis.

If this is not possible, they are asked to send a sample of the scales. Trout and coarse anglers are asked to call the Environment Agency on 0800 80 70 60, if unsuccessful please return the salmon.

Pink salmon (Onchorhyncus gorbuscha), also known as humpback salmon, originate from the northern Pacific Ocean.

Millions were stocked in the White Sea region of north Russia from the 1950's until 2003 to develop a net fishery. As a result, some have established self-sustaining populations in rivers in Russia, Finland and northern Norway. This is the most likely origin of the pink salmon recently caught in the UK and Ireland.

How to identify a pink salmon:

- Large black oval spots on the tail
- Bluish back, silver flanks and white belly
- Much smaller scales than an Atlantic salmon of the same size
- Very dark mouth and tongue
- 40-60cm in length
- Breeding males develop a distinctive hump

In contrast, the native Atlantic salmon typically:

- Have no spots on the tail
- Usually larger (up 110cm in length)
- Pale mouth and tongue
- Larger scales
- One or two black spots on the gill cover
- Spots on the back above the lateral line
- Thicker base of tail than a pink salmon

News story: Reducing the use of animals in research: apply for SBRI funding

The National Centre for the Replacement, Refinement and Reduction of Animals in Research (NC3Rs) plus sponsors will invest in collaborative projects that

address some of the challenges posed by animal experiments.

This is designed to:

- minimise the use of animals in research
- support the development of marketable products
- improve business processes

Collaborations are encouraged between industry, research organisations and small to medium-sized enterprises (SMEs).

What you need to know

The centre is launching 3 challenges as part of its Crack It initiative.

DARTpaths

This challenge aims to develop an effective data strategy and data management structure to map the developmental and reproductive toxicity (DART) genes of different species. You should compare the effects of toxic compounds across species.

It is in 2 phases. There is up to £100,000 for phase 1. Phase 2 has funding of up to £1 million. Shell and Syngenta are the sponsors.

Dosing for controlled exposure (DoCE)

This challenge aims to improve dosing methods and strategies for in vitro dose-responses and to encourage their uptake, application and use in risk-based decision making. This could offer the potential to eventually replace the need for in vivo animal studies.

It is in 2 phases. There is up to £100,000 for phase 1. Phase 2 has funding of up to £1 million. Unilever and Shell are the sponsors.

RespiraTox

In this challenge the aim is to develop a model that reliably predicts human respiratory irritation to chemicals. It should use in silico-based tools.

This is a single-phase competition. Up to £100,000 is available. The competition is sponsored by Shell.

The background

NC3Rs is an independent scientific organisation that supports the UK science base to find alternative applications to the use of animals in research and improve welfare.

This competition is being run through the Small Business Research Initiative (SBRI).

Competition information

- the competition opens on 11 September 2017
- there are different deadlines depending on the competition you are applying into. These are:
    - 8 November 2017 at midday for the 2-phase DARTpaths and DoCE challenges
    - 15 November 2017 at midday for the single-phase RespiraTox challenge
- there will be a launch event on 7 September 2017 to find out more. You will need to register for the event