



**Sheffield &
Rotherham**

Q&A about the Chelsea Road elm tree butterfly mitigation plan

5 February 2018

UPDATE: There is a background section further down for those less familiar with the background to the tree.

What is happening with the Chelsea Road elm tree?

In the summer of 2017 Streets Ahead decided it wanted to undertake pruning work on the Chelsea Road elm tree, still with a mind to fell it later (see Background). The reasons given for the pruning work are that reports show that one limb is decayed and several of the long branches are hollow due to previous topping work. Streets Ahead are concerned about the potential health and safety risks from leaving the tree as it is.

Sheffield & Rotherham Wildlife Trust (SRWT) has no view on the health and safety risk from leaving the tree as we have not inspected it from this point of view and only have the arboricultural reports to go on. We have always maintained that we would like to see the tree retained (see Background). It is therefore a Streets Ahead decision to undertake this work but SRWT have asked Streets Ahead to remove the minimum amount of material necessary and consider works over more than one season. This is both to reduce the risk of exposing the tree to Dutch elm disease (DED) and to reduce the number of White-letter Hairstreak butterflies (WLH) that would be removed and to minimise their loss of habitat.

What is the butterfly mitigation plan?

There are several parts to the butterfly mitigation plan which has been prepared by Streets Ahead. One part is to prune the Chelsea Road elm tree as a first step. Another part is to plant DED-resistant elm trees nearby to the Chelsea Road elm, leading to existing elms (including two DED-resistant elms) in Chelsea Park. Companion planting that is favoured by WLH butterflies will take place alongside the new elms. A key part of the plan is to

translocate WLH eggs from the Chelsea Road elm during pruning and any subsequent felling. The eggs will be translocated to other host elm trees in the city. A final part of the plan is for cuttings that do not host a WLH egg to be taken and grown up into new elm trees. SRWT are only involved in advising on the translocation and companion planting aspects of the plan.

Who has been consulted/involved in drawing up the plan? And when did SRWT become involved in the proposed mitigation?

The Trust first learnt of SCC's proposed plan to translocate the butterflies in June 2017 after a Biodiversity Officer again raised the issue of the NERC Biodiversity Duty to the Streets Ahead team. SCC then decided to prepare a butterfly translocation plan with support from Butterfly Conservation UK (BCUK). As the Trust has had a long interest in the tree and its butterfly population, and employs a member of staff with relevant experience, we decided to get involved to increase the chances of the plan's success. The Trust met with the Council's Biodiversity Officer and a representative from the SCC Streets Ahead team in July 2017. SCC said it would bring a draft plan for us to comment on – in fact the draft plan was written after that meeting and we have been commenting on evolving versions of the plan since. SCC says it will release its plan to the public. We must stress that it is SCC's plan with our comments and involvement to improve it – not a joint partnership plan. The Trust has decided to assist with the plan to give the butterflies the best chance. This does not mean we support the pruning or felling of the elm tree. SCC Ecology Unit, Butterfly Conservation UK and Sheffield & Rotherham Wildlife Trust have all commented on the plan which was drafted by Streets Ahead.

How will the eggs be translocated?

When the tree is pruned, arboriculturist staff will be instructed to save any branches thought suitable for WLH ova. These will then be transported to a base for staff and volunteers from Sheffield City Council, Sheffield & Rotherham Wildlife Trust and hopefully Butterfly Conservation UK to inspect for eggs. SRWT staff will also be on-site during the pruning operation.

The exact plan for relocation will depend on the number of eggs found on the day. If only a small number of eggs (<20), it is suggested that SRWT rear up the eggs in captivity, testing on various host species of elm tree, for release at most suitable sites later in the season.

If more than 20 eggs are found, then some branches will be attached to receptor elm trees – the number of receptor trees will depend on the number of eggs found. The eggs would then

hatch on to the new tree in the March. The emergent larvae will enter a nearby flower bud to feed, later moving to the leaves as they grow. After several months the caterpillars will pupate on the tree and the emerging new butterflies will then hopefully colonise or select another host tree nearby.

Where will the butterflies/eggs be moved to?

The eggs will be relocated to new host trees in Sheffield. They will be attached to multiple trees to increase the likelihood of success – if the host trees become diseased or the butterflies do not take to the new tree, alternative trees have been identified.

What influence did the presence of a mitigation plan have on SCC/Amey's decision to prune and fell the tree?

The butterfly translocation plan was proposed by SCC following its decision to fell the tree in order to comply with its Biodiversity Duty. We have campaigned since 2015 alongside other organisations, local street tree groups and residents to save the tree, which we remain strongly opposed to felling. Keeping the tree is the simplest approach to retaining the butterfly colony it supports. However, the presence of the butterflies has meant that instead of immediate felling, the tree would be pruned and some of the butterflies translocated as a first stage. There can be consideration to whether translocating any remaining butterflies prior to eventual felling would be worth carrying out as a second stage.

What about the timing of the mitigation?

Originally Streets Ahead said they wanted to carry out pruning works in August/September. We advised that it will be easier to locate butterfly eggs in winter when the tree is not in leaf, and the eggs are also more opaque and easier to spot – they are tiny and very difficult to find. Eggs will be easier to translocate than caterpillars which are even more difficult to spot than eggs because in their early stages are very small and feed within developing flower buds. Later in the life cycle larger caterpillars are perfectly disguised to look like part of the elm leaves and are still very hard to find. The September possible dates were delayed due to Streets Ahead issues with the traffic management plan. The plan is now back on the table.

Many of the elms in Sheffield are likely to be killed by disease in the next ten years as they don't have the resistance of the Chelsea Road elm. Which trees are the Trust planning to move the butterfly colony to? What undertaking can you give that the trees the butterflies are to be moved to will survive in the longer term? What size/age exactly are the 'replacement' trees, their source, and their estimated chance of survival?

The SCC Biodiversity Officer identified a number of potential host trees with expert input from BCUK and has shared that information with the Trust. We have assessed the trees and chosen a selection based on the suitability of the tree to host WLH and a mixture of types and ages of elm. We do not have an estimated chance of survival which is why we have always said that retaining the Chelsea Road elm is the best option. More than one host tree would be used to increase the chances of survival.

Who will decide which trees the butterflies will be transferred to?

Potential elm trees were identified and then checked for suitability from a tree health point of view by Streets Ahead and for a WLH point of view by SRWT and SCC Ecology Unit. An agreed ranked shortlist of trees was then made which also considered ownership and access.

Will the butterflies be retained in Sheffield?

Yes – all the host tree locations identified are in Sheffield.

What is SRWT's estimation of the chances of a translocation from the Chelsea Road elm being successful and how did they come to that conclusion?

We do not know whether the plan will be successful, and we cannot provide any guarantee of this, but there is monitoring built into the plan. We decided that trying the plan was better than just knowing the colony would be lost by not doing anything when SCC prune and/or fell the tree.

Are there any examples of White-letter Hairstreak butterfly egg relocation having been successfully done before?

Ben Keywood (FRES - Fellow of the Royal Entomological Society) is a lepidopterist who has recorded butterflies for many years in the Sheffield area. He has contributed to management plans for Rotherham Borough Council for the protection and creation of butterfly habitats and his records and reports have been published widely. He is an employee of Sheffield & Rotherham Wildlife Trust.

Ben has previous experience of relocating White-letter Hairstreak butterfly eggs. They were removed from elm trees which had been identified as declining from Dutch elm disease and then attached to young, healthy Wych Elm trees. The eggs successfully hatched and monitoring of the area in the following years continues to show the presence of White-letter Hairstreak butterflies.

Although there is little other information or scientific studies available regarding relocation of White-letter Hairstreak butterflies, there is good evidence for both Brown Hairstreak and Black Hairstreak butterflies ('English Nature: The Butterfly Handbook' - available online). Although the host food plant for these species is blackthorn and not elm, their life cycles are otherwise similar, so we believe these examples demonstrate that the procedure is possible and could also be successful.

If it becomes clear that the plan is not feasible will SRWT withdraw their involvement?

We are only involved in the interests of securing the best outcome for the butterfly colony following SCC's decision to prune and ultimately fell the tree, which we remain opposed to. As our staff have previous experience of White-letter Hairstreak egg relocation, we hope this expertise will help to improve the chances of success in securing a future for the butterfly colony. However, if our views are not taken into account and we do not support the final butterfly mitigation plan then yes we would be willing to withdraw our involvement.

There is concern that the street tree campaigners and the Trust, who share the same concern for the trees and the butterflies will be brought into conflict. Has the Trust thought about how this might be reported by the media? How does this eventuality further the Trust's aims?

We strongly oppose felling of the Chelsea Road elm and agree that retaining the tree is the best chance for the butterfly colony. In the eventuality that the tree is pruned prior to felling – which is SCC/Amey's plan – our involvement is simply to collect branches in order to relocate any butterfly eggs. The Trust has worked closely with prominent campaigners from Save Nether Edge Trees to try and persuade SCC not to fell the tree. Being involved in the butterfly mitigation plan is in line with our aims of considering the best outcome for wildlife in the result of SCC pruning and/or felling the tree. We have weighed up this difficult issue very carefully before reaching our decisions.

BACKGROUND

Why should the tree be saved?

This is a very special tree. We believe everything should be done to prevent its felling, despite its roots causing some disruption in the road. Very few mature elm trees remain in Sheffield as most were wiped out by Dutch elm disease. This tree has survived. It was voted as the nation's second favourite tree in the national 'Tree of the Year' competition 2016. Sheffield City Council (SCC) has always maintained that 'felling is the last resort'. We do not believe this is the case with this tree and other options need to be fully explored.

The tree supports the White-letter Hairstreak butterfly (WLH). This species has suffered a 96% decrease in abundance over the last 40 years, of which 77% has occurred since 2005 – it is therefore a UK Biodiversity Action Plan priority species. The butterfly spends its whole life cycle on the tree, so felling this mature flowering elm tree would likely result in the loss of a colony of this conservation priority species.

Conservation organisations and the community are very willing to work with Streets Ahead to find solutions.

A zero-cost engineering solution has been put forward by Save Nether Edge Trees and was tentatively agreed by the Council. The Council then reneged on this and has not explained why.

If it would really cost £50,000 to save the tree, then can the Council give the conservation organisations and community a chance to raise these funds themselves? If not, why not? What is the true 'value' of the tree?

When were the butterflies discovered on the tree?

Following an enquiry from a member of the public, Ben Keywood, a lepidopterist (specialist in butterflies and moths) employed by Sheffield & Rotherham Wildlife Trust identified White-letter Hairstreak butterflies located around the tree in the summer of 2015. In January 2016 we revisited the tree and obtained evidence that the tree supports a White-letter Hairstreak colony, which we forwarded to SCC with reasons not to fell the tree, including the Biodiversity Duty. This letter can be downloaded from our Street Trees page at wildsheffield.com

What reason have SCC given for felling the tree?

The main reason Streets Ahead has given for wanting to fell the tree is root disturbance in the carriageway and that the roots are likely to be damaged during re-surfacing works. The Independent Tree Panel (ITP) was set up by the Council in response to criticism about some decisions by Streets Ahead (SCC and private contractor Amey's 25-year PFI contract to manage Sheffield's streets) to fell healthy mature trees that were causing damage to pavements or roads. Residents of streets were surveyed and if over 50% of those that replied wanted to retain a tree that Streets Ahead had recommended for replacement, it was referred to the ITP. The ITP wrote their report on the Chelsea Road elm in July 2016, but it was only published on 27/6/2017, along with the Streets Ahead response. The report said, *"The two trees are in good condition and have good life expectancy. We advise that there is*

no arboricultural need to remove these trees. The tree adjacent to number 111 Union Road is a Huntingdon Elm (and not an English Elm), a notable and rare species, which we advise there is a strong arboricultural case to retain. The tree is causing some disruption to the pavement, and to the carriageway, where there are numerous utility covers. We nevertheless believe that a combination of engineering solutions could be used to retain this tree, install dropped kerbs, and render the pavement and carriageway satisfactory and safer at all parts of the Chelsea Road and Union Road junction. We recognise that this may incur additional costs. We therefore advise the Council to reconsider its plan for this tree with a view to retaining it."

The Streets Ahead response posted on the SCC website 27/6/2017 along with the ITP report was simply: *"The roots are under the carriageway therefore solution would be expensive if retained: Recommend Replacement"*.

In a subsequent press statement, Cllr Bryan Lodge has said, *"the elm tree on Chelsea Road has been inspected several times by qualified arboriculturists working on the Streets Ahead programme and as well as having significant decay, it is causing irreparable damage to the surrounding kerb and pavement. The costs associated with retaining this tree stand at over £50,000 and allocating funds to saving it would be unfeasibly and moreover, unjust"*. The council have not released details of these reports or cost estimates to the public. The copies of the independent arboricultural reports that were commissioned by Streets Ahead were eventually made available. One report recommends (in summary) *"for the tree to be managed as a free growth specimen subjecting it to crown reduction and thinning"*. It identifies one limb as being weak.

When were SRWT informed about SCC's intention to fell?

The Trust first learned of SCC's decision to fell the tree on 27 June 2017, when the Council informed campaigner Paul Selby, who then contacted the Trust. However, since then, the attention has moved to pruning the tree and we do not know when any eventual felling make take place.

Isn't £50,000 is a lot of taxpayer's money to spend on saving a tree?

Yes, it is a lot of money. There are three answers to this.

- a. A local resident proposed a cost solution to retaining the tree (patching the road at this point only instead of planning a full resurface). This was tentatively agreed by

Streets Ahead. There has been no explanation of why they have apparently changed their mind.

- b. The community and wildlife organisations who would like to retain the tree would be willing to collectively raise funds for the tree and would like to explore this option with Streets Ahead.
- c. What is the true value of a special tree like this anyway that supports so much biodiversity and provides many ecosystem services? We would welcome an i-Tree Eco survey or similar assessment.

Is it possible to put a Tree Preservation Order (TPO) on the tree?

The elm is in Nether Edge Conservation Area which already gives it similar protection to TPOs, but the planning authority (who would normally decide on TPO issues) do not need to give their consent when the highways authority needs to *"cut down, top, lop or uproot a tree protected by an Order to enable the implementation of a highway order or scheme made or confirmed by the Secretary of State for Transport under Schedule 1 of the Highways Act 1980"*. A local resident did apply for a TPO for the tree, but SCC turned it down.

Are White-letter Hairstreak butterflies protected by law?

White letter Hairstreak are a UK Biodiversity Action Plan Priority (BAP) species and a declining species, but have no legally protected status (unlike European protected species such as bats and Great Crested Newts). However, they are listed in the NERC 2006 Biodiversity Duty (under section 41). This means that all public bodies – including Local Authorities – must show regard for conserving biodiversity in all their actions (s40), particularly the species of principal importance listed in s41. In line with their Duty, SCC have agreed to attempt a butterfly mitigation plan as part of all works to the tree.