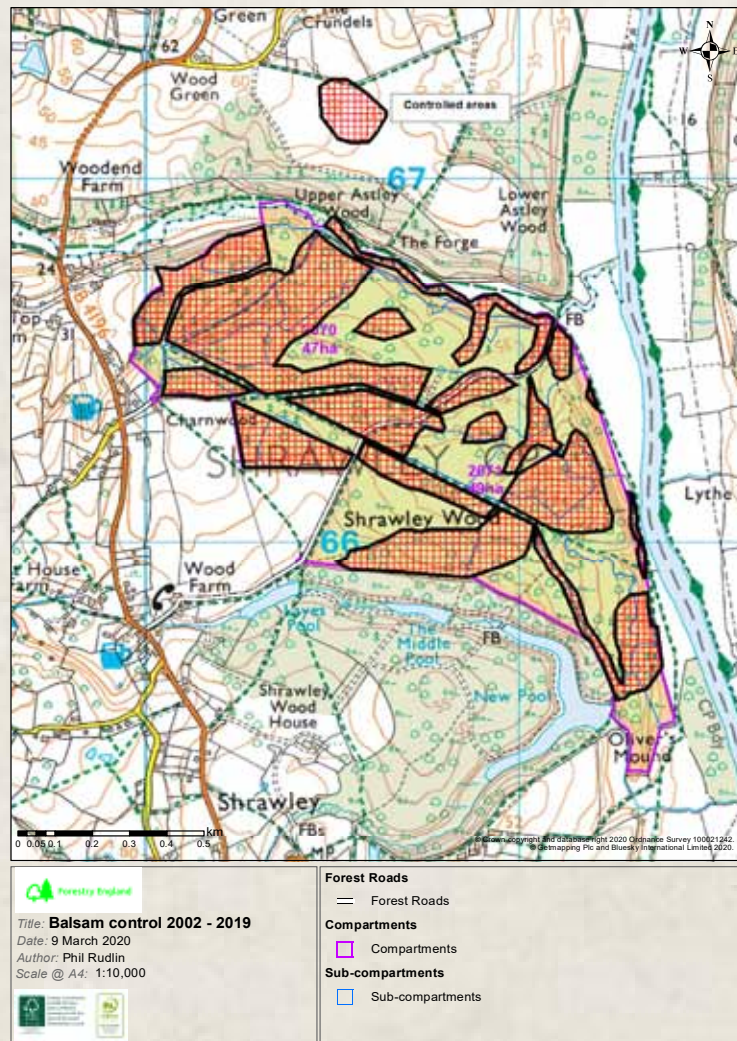


The Battle of the Balsam - the end?

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Back in 2001 almost half of Shrawley Wood, which is the largest Small-leaved Lime woodland in the country, was covered with Himalayan Balsam *Impatiens glandulifera*. (see map). This alien plant had crept up from the River Sever to the east and Dick Brook to the north. Despite its reputation at the time for preferring damp, open areas it was thriving in the sandy soils beneath the lime. At this point we decided to do something about it before it swamped the whole woodland. After surveying the wood during the summer, we decided to concentrate on the open areas and the central part of the forest – in effect trying to control the middle and push it back whence it came. Therefore, in 2002 the battle began!

In the early days various methods of control were tested, including strimming, mowing and crushing using an All-Terrain Vehicle (ATV) and bracken roller. The rolling was by far the most effective mechanical method, particularly under the lime canopy where there wasn't any other vegetation to cushion the weight of the fins. (The roller is a heavy cylinder with fins along its length and is towed behind an ATV - see Photo 1. As

it rolls over the plant the fins crush the stem three or four times up its length - see Photo 2.)

Strimming or hand "whipping" with a stick looked very good initially. However, it was very difficult to get right to the base of the plant using either method and, if just 1 node remained, it would regenerate as a "coppice" creating multi stems and even more flowers and therefore seeds. Mowing was quite effective as it did cut the stem very close to the ground and mulched all parts of the plant. However, at the time, we only had access to a large tractor and mower which could only carry out the operation on open areas without too many stumps. The advantage of the ATV and roller is that it's much smaller and manoeuvrable so can get into quite tight spaces between trees and on steeper banks. However, even the ATV couldn't go everywhere and after each operation the only way to control the remaining plants was by hand. Fortunately for us at the same time Chris Doncaster, leader of the local Worcestershire Wildlife Trust Watch Group, contacted us to see if we could set up a conservation workparty. We gladly started the group and one of its first tasks,

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Photo 1. Using an ATV and roller

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Photo 2. After rolling.

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in June 2002, was to hand pull the plant from the areas crushed with the roller. This became the main form of control until 2009 when there were no areas remaining for the ATV to access, or the amount of Balsam had reduced, but other native species such as bracken or bramble had increased. This mixture of plants created a "cushioning" affect therefore diminishing the crushing power of the roller. From then onwards the only form of control was people power! Since 2002 we have run 34 sessions, fighting the plant in June and July each year. On average we have had 15 volunteers attending each battle which equates to 510 person days and 3060 hours of hard labour! 5 of our volunteers have been fighting from the very beginning and a further 9 for over 10 years. We have also had some help from local schools, Duke of Edinburgh Award students, cubs and scouts. In some of the more inaccessible areas contractors have also been employed. We have used volunteers where most plants were concentrated. Photos 3 and 4 show an area which was inaccessible to machinery before and after hand pulling.

In some cases, areas were cleared over 1 or 2 years while others took up to 5 years. One lesson learned quickly was that clearing an area just once a year wasn't enough. No matter how vigilant, some plants were always missed. It also became apparent that once the larger plants were removed many smaller ones, much more difficult to see

or perhaps late germinating, were able to grow with all the extra light and reduced competition! Usually the group controlled an area in June and then returned to sweep through again in July to pull these extra plants before moving on to the next area. I also followed up in the early autumn as plants germinating later were flowering as late as October. As the number of plants reduced, it became more difficult as they became mixed with our native bullies of bracken and bramble. I spent time in these areas during the summers, leaving the larger areas of almost pure Balsam to the volunteers, as controlling these on your own is rather demoralising! This is becoming increasingly difficult as sometimes just odd plants are found in waist high bramble. This is where the ATV comes into its own as it is great to survey large areas of the woodland quickly and, when plants are found, access it without wading through brambles, bracken or nettles!

The plant has been controlled in about 45ha of woodland and at last we have finished almost. After 18 years of hard work it is all but eradicated from the whole wood! However, the plant is extremely effective at recolonising so we will use contractors to control it in the future where it tries to grow. Our dedicated workparty of 3 - 80ish year olds in the photo overleaf celebrated their final battle in July 2019 and we will have to find some Balsam elsewhere next year!



Photo 3. Before hand-pulling.

Phil Rudlin



Photo 4. After hand-pulling.

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The Balsam pulling team, July 2019

Phil Rudlin

Balsam in Wyre

Although never on the same scale as Shrawley, Balsam has also been a problem in Wyre Forest. It has been controlled along the Dowles Brook, Hawkbatch carpark and footpath along the edge of the River Severn. There was an ambitious 3 year project to eradicate it from the Dowles and its tributaries funded by the Environment Agency in 2013. Contractors were employed to hand pull it from Lem Brook, Baveney Brook and the full length of Dowles Brook. This was almost successful. I believe that 95% of the plants were controlled but, as the seed can be viable for at least 3 years, it is likely that some plants were missed and some have germinated

since. The numbers of plants certainly reduced but, despite advising otherwise, they could not extend the project any further and since 2016 it is again increasing along the Dowles and its tributaries.

Ribbesford has also been invaded from the River Severn. It has been controlled using contractors on Gladder Brook and the steep banks along the B4194 "Switchback" road. Although some plants are still found, its range has been drastically reduced.

We may think that this plant is under control, but we will have to continue monitoring and pulling it for the foreseeable future. If we turn our back for too long it will return with a vengeance!!



Himalayan Balsam, Blackstone, 16 August 2018 R. Winnall



Himalayan Balsam, River Stour, 18 August 2009 R. Winnall