

## **Current State of Himalayan Balsam in the River Kent Catchment 2022**

### **R4Ever Kent Project**

This year we received the welcome news that South Cumbria Rivers Trust (SCRT) had been awarded EU Life funding for a 5 year project aiming to restore habitats in the River Kent for designated Special Area of Conservation species. Much of this funding is aimed towards the prevention, early detection and control of a number of invasive species, both plant and animal. However funding is available to continue supporting the control of existing invasive species including Himalayan balsam, Japanese knotweed and giant hogweed.

Funds are available to us for training, equipment, travel, mapping, and control work as well as a rust control trial – see below. The funding has also provided some SCRT part time staff support and we were delighted that Bekka Corrie Close held this role during the 2022 season. Bekka however has, sadly for us, decided to leave SCRT to focus on other things. We wish Bekka well, and very much hope that SCRT will be able to continue to fund some direct staff support for our work going forward.

### **Network Rail**

One of our main challenges last year was to engage with Network Rail (NR) about control of Himalayan balsam on the main line and the Windermere branch line. The Windermere Rail User group has been helpful in raising the lack of action with NR, and with their members, and with the help of SCRT, we had some success last year in engaging with staff responsible for this work and obtained an undertaking from NR that they would do their best to take action.

We have had partial success in this in 2022. With regard to the infestation on the Windermere branch line over Stock's Beck, the balsam was sprayed on the 4<sup>th</sup> June and then again on the 22<sup>nd</sup> August. On inspection the number of plants were certainly reduced but this work will need to be repeated along this section of the line for a number of years until no more balsam is found.

The situation is disappointing on the mainline, where a large infestation is getting into Lightwater Beck, a tributary of the river Mint. No action was taken by NR on this section in 2022 and volunteers once again had the demoralising job of clearing plants from the stream below the infestation – in the knowledge that seed will be shedding into the watercourse to re-infect next year.

### **Rust Control trials**

As part of the R4Ever Kent project funding is available to run rust trials on 3 sites in the Kent catchment. Criteria for the site selection are precise and include a minimum area of dense balsam plants, landowner agreement, and absence of public access amongst other things. This was a conundrum as our control work over the past 18 years has meant that finding sites fitting the criteria was rather difficult.

As it happens a potentially suitable site was identified: a previously undiscovered infestation in a small dammed stream on a farm at Sedgewick, adjacent to National Trust land. The site seemed ideal: no public access, landowners in agreement, area of infestation exceeding the minimum required and with the stream having a dam wall – there were relatively few seeds escaping into the river – and plants that had eventually appeared could easily be tackled.

We were very hopeful of this site being accepted. Unfortunately however Natural England has rejected this site on the grounds that the stand is not homogeneous ie other species are (still) present in the balsam stands. This is extremely disappointing, and with our surveys and knowledge of the catchment the chances of finding any suitable homogeneous stands unless we cease control work is possibly remote.

One additional suggestion made to SCRT is that with our difficulties with NR, the balsam along the stream below the mainline could be left uncontrolled for a year and then be put into the rust trial. We would then potentially have a rust programme higher in the catchment and infected plants might then migrate downstream and help our control program with less aggressive plants. This suggestion is likely to meet with the same difficulty as the Sedgewick site however.

## **Mapping**

Historic and current Himalayan balsam control locations have been provided to SCRT who have been able to import the data into their GIS system. This data gives a good timeline of the success of the volunteer led control work undertaken over the last 18 years.

## **Impact of capital works along the river Kent.**

With the Environment Agency (EA) flood alleviation works now in full swing, the United Utility works at the Kendal WWTW and weir removal and other works by SCRT – there is much turmoil in the river corridor. These works are inevitably disturbing soil and river gravels and sediments in areas where, in the past, Himalayan balsam has been predominant. It seems no coincidence that having reported positively on the Himalayan balsam situation in 2021 including areas to the south of Kendal, in 2022 we have been overwhelmed in some areas by masses of plants in areas that previously have been reasonably well under control. These areas particularly include:

- Around the Kendal WWTW – where huge numbers of plants were found in June. The United Utilities(UU) contractors were extremely helpful in allowing us to access the site in 2021 and so we were confident that we were on top of the control work here at the end of the 2021 season. From the pattern of plants found in June 2022, it seemed clear that the area had been re-infested by seeds, either from upstream or from the fenced off area of the UU works that we could not access. Seeds settle in the willow scrub and on the banks as the river slows around the meander and flood water subsides.
- The area around and to the south of Helsington Mills, where bunds have been built for flood alleviation. We were unable to check much of this area during 2020 and 2021 due to the works. This year large numbers of plants were found in June – both on and around the bunds and along the river banks downstream areas that had previously been clear of balsam.

Flood alleviation work is now ongoing through the middle of Kendal and will start this autumn at Mintsfeet and a big fear is that this will increase the infestation downstream.

## Balsam situation 2022

### Highest points of current control for the Kent and its tributaries are:

- **Kent:** below Jump Waterfall at NY461044; Small stream above Kentmere Hall at NY451044; stream through Rawe Cottage E of the Kent at NY458043; Green quarter streams above NY463049; High House garden above Burneside at SD 50243 87891
- **Oxenholme Beck:** Above Oxenholme Beck on land west of Hayclose Road at SD535903
- **Sprint:** Above Gurnal Bridge at SD523978 (Thornyslack Farm); Cold Harbour at SD520980
- **Gowan:** at Broadgate Farm Ings SD435993; at Heaning at SD432991; at Ashes Lane SD479964 Ratherheath
- **Mint:** On private land ( former quarry) adjacent to Moresdale stream, a small tributary of Lambrigg Beck (SD584955) Lightwater Beck SD540948

After our overwhelmingly positive situation at the end of the 2021 season, the situation in 2022 has become rather more mixed. Where we are confident that we have identified the highest infestation in the catchment and have been able to work downstream with sustained control and monitoring we have positive results. So

- The Sprint is now mostly clear apart from a patch at Cold Harbour
- The upper Gowan including land at Heaning and around Holmfield/Broad Oak farms remain almost clear
- Lambrigg Beck is now clear apart from a very small number of plants .
- The land around Croppers wood off the A591 and adjacent verges remain clear.
- Ashes Lane/ Ratherheath area continuing to improve.
- Oxenholme and Natland Becks are now almost clear

However as described above we have

- Issues with continuing re-infestation of the river Mint from the mainline network rail site
- Issues with infestation to the north of Kendal, through Kendal town and now to the south of Kendal possibly arising from flood alleviation and other capital works

In addition we have not been able to eliminate balsam from the top of the Kent catchment around Kentmere tarn and village. Patches here are spread out: appearing up the upper Kent above the village, from streams from the Green Quarter and on land above Kentmere Hall. We are also still finding balsam on the west bank of Kentmere tarn, a couple of patches on the east bank and to the south around the Hollingworth and Vose factory at Kentmere. Whilst not widespread, this is difficult terrain: either steep fell side with bramble and bracken or dense willow scrub. It is difficult to put in the sustained control and monitoring work this area needs with our current volunteer resources.

Other hotspots include

- The lower Gowan – need some further investigation as plants keep appearing though not in high numbers
- the river through Carus Green down to Kentrigg again a steep river bank on one side, and dense willow on the other side plus access issues with some infested gardens upstream from Carus Green
- The lower end of the Mint at its confluence is an area of repeated infestation
- Garden at High House above a small tributary to the Kent above Burneside

## Reports of new infestation

One report of a site on a farm at Sedgewick at SD50983 88421 adjacent to National Trust land. The infestation is quite well contained though a stream runs through the site. The stream is dammed at the lower end so only a few seeds have been escaping to infest the national trust wood and river below. It was proposed for the R4Ever Kent rust trial.

Late season spot of an infestation at Cumbria Kendal Scaffolding on the Mintsfeet industrial estate

## Manpower and resources

Most of our work this year has been undertaken by individual volunteers along with some small teams working in remote and difficult areas. In addition we organised 1 work party at Ashes Lane and 3 work parties around the Kendal WWTW.

Volunteers have contributed at least **330 hours of balsam control/ monitoring from early June to mid-September**. This figure is an underestimate as there are a number of areas where volunteers are working but haven't submitted any info about time spent.

## Other Invasives

- 5 reports of Giant Hogweed made to the Environment agency
- SCRT were notified of some Knotweed issues

## Challenges and priorities for 2023

- A major challenge will be working around flood alleviation schemes at Mintsfeet and through Kendal and monitoring and tackling any re-infestation issues
- With SCRT support maintain pressure on NR to continue control work at an appropriate time on the Windermere branch line above Stocks Beck
- With SCRT to put further pressure on NR to effectively tackle the balsam on the mainline
- Review our control and monitoring strategy with the R4Ever Kent project

Judith Wallen

Kent Invasive Plant Action Group October 2022

## Work this year 2022

**Control** means – work parties needed and/or significant new areas or re-infestations tackled. Significant numbers of plants still being found.

**Monitoring** means work parties not required. Relatively few plants removed and numbers of plants found is decreasing.

**Clear** – means – no plants found in the area for at least 2 years.

<p><b>Kentmere to Staveley</b></p>	<p>9 visits between July and September plus local volunteers</p> <p>At least 50 hours</p>	<p>Kentmere continues to be a significant challenge as the infestations are spread over quite a wide and difficult area.</p> <ul style="list-style-type: none"> <li>• Patches of balsam tackled in the brambles and bracken on the fellside above Kentmere Hall. Infestation is decreasing here but it needs a more sustained monitoring and control approach</li> <li>• The upper Kent is improved with fewer plants found on the patch below jump falls and at the patch at NY 45960 04193. However this section of the river has recently been fenced and the subsequent dense vegetation is making access very difficult.</li> <li>• In the Green Quarter stream in the village there were fewer plants in the section below Middleholme than last year though plants were removed from the stream above the road. No plants were found at the bottom of the field below High Fold</li> <li>• Infestation at Rawe Cottage is improving with the owners having tackled the plants during the summer.</li> <li>• The river from the village to the northern end of the tarn is almost clear. Some plants removed from the north end of the tarn</li> <li>• The wood at NY456032 on the east bank had over 200 small plants</li> <li>• Three visits made to West bank with a disappointingly large number of plants found late in the season underlying just how difficult this area is.</li> </ul>
<p><b>Gowan</b></p>	<p>4 visits between June and September</p> <p>Plus local volunteers</p> <p>(12hrs)</p>	<p>The upper catchment of the Gowan is now almost clear and the Gowan is in Monitoring</p> <ul style="list-style-type: none"> <li>• Very few plants found at Heaning which is now almost clear</li> <li>• Broad Oak/ Holmefield farm area having been clear for 3 years was not checked this year.</li> <li>• Plants are still being controlled in a small wood south of Low House and also on a steep bank just off the western edge of the Staveley bi pass</li> <li>• A number of plants found on the lower Gowan in Staveley</li> </ul>
<p><b>Staveley to Burneside</b></p>	<p>Local volunteers</p>	<ul style="list-style-type: none"> <li>• Croppers Wood area off the A591 is now reported clear.</li> <li>• Cowan Head gorge tackled again by a climbing team.</li> <li>• Plants were found in the and tackled in the river banks around Burneside including the difficult area under Croppers wall</li> <li>• No plants were reported from Bowston.</li> <li>• An repeat infestation in a garden and adjacent fields at High House was tackled. This is in a small stream that the garden at High House</li> </ul>

Ashes Lane/ Ratherheath woodland	1 work party plus 5 visits between June and September  Plus local volunteers Est 22+ hours	This area continues to improve It comprises the Ratherheath woodland, the Ashes Lane campsite and three pasture/gorse fields to the north of Ashes Lane <ul style="list-style-type: none"> <li>• Several patches tackled around the campsite perimeter and in the central wooded area</li> <li>• Ratherheath woodland was almost clear with few scattered plants being found in late season checks</li> <li>• Ashes Lane was almost clear</li> <li>• The gorse/pasture fields scattered plants and a few patches tackled over the season</li> </ul>
<b>Sprint</b>		Sprint now almost clear apart from a patch at Cold Harbour SD 520980
Carus Green and Kentrigg and	7+ visits between June to September  Est 28+hrs	<ul style="list-style-type: none"> <li>• Carus Green from the Sprint down to the concrete bridge over the golf course remain relatively balsam free.</li> <li>• Several plants tackled on the steep left bank of the river below concrete bridge</li> <li>• A number of patches tackled amongst the reeds and willow scrub on the right hand bank (looking downstream) below the concrete bridge on the golf course.</li> <li>• Plants removed from the dense bramble bank along Gilthwaiterigg beck behind the 6<sup>th</sup> tee</li> <li>• Gaining access to the garden of the house at Pepperhag is an annual problem and plants continue to appear.</li> <li>• The areas on the golf course itself are now largely clear.</li> </ul>
Mint	52 hours	The upper Mint ( downstream from Ivy Bridge) is mostly clear, but there are still individual plants cropping up. <ul style="list-style-type: none"> <li>• a vigorous patch found again in Mealbank industrial estate.</li> <li>• the infestation on the Network Rail site off the mainline above Lightwater Beck. See comments above.</li> <li>• The confluence with the Kent where seeds catch on the gravel islands</li> </ul>
Lambrigg Beck	Local volunteer team 6hours	Lambrigg Beck is now almost clear. Local volunteer spent 6 hours checking the beck and found just a few stragglers
Mintsfeet and Dockray	Est 29 hours +	The whole Mintsfeet area is under monitoring with the exception of the gravel island at Sandy bottom where numbers of plants are regularly found and removed. <ul style="list-style-type: none"> <li>• Kendal nutricare site appeared clear with just a few plants outside the boundary</li> <li>• Few plants in the meadow area – but this is getting very overgrown</li> <li>• Few plants on the woodland edge and in the wooded area to the south of the site</li> <li>• One new clump of plants on the river by a broken concrete wall</li> <li>• Scattered plants down the river to Dockray Bridge</li> </ul>
Kendal Dockray Bridge to Nether Bridge	10 visits between June and September  Est 29+ hours	This section is being <b>monitored</b> . Plants have been found in a small number of areas and have been removed. <ul style="list-style-type: none"> <li>• Mintsfeet area is generally much improved with small numbers of plants removed – main areas are the island at the Mint confluence and the southern edge of the wood.</li> <li>• Overgrown bank under Kentgate flats, still troublesome and had to be tackled by volunteers in canoes this year as the vegetation is now too dense to move along the bank.</li> <li>• Infestation behind Jewsons was tackled by Network rail in June and again in August see below. .</li> <li>• River banks between Stramongate Bridge and Nether Bridge are largely clear except for a few hots spots ( eg Abbott Hall bank) and odd random clumps mainly on the left bank.</li> </ul>

Kendal Nether Bridge to Scroggs Wood/ Watercreek	3 work parties (right bank)  7 visits between June to September  Est 60+ hours	This area is in <b>Control</b> and has deteriorated particularly around the WWTW and Helsington Mills <ul style="list-style-type: none"> <li>• Large number of plants found in June around the WWTW see comments above</li> <li>• Scroggs Wood – remains almost clear – just a few plants removed</li> <li>• Patch of 50 plants found downstream from Scroggs Wood</li> <li>• Large number of plants tackled behind the new bunds at Helsington Mills</li> <li>• Several patches of plants were tackled around both sides of the river bank downstream from Helsington Mills to the outflow into the river at Watercreek</li> </ul>
<b>Natland Mill Beck &amp; Oxenholme Beck</b>	3 visits between July and September  6 hrs	This area is now in <b>Monitoring</b> and is now almost clear <ul style="list-style-type: none"> <li>• Only small number of scattered plants found from the top of the beck down to the river.</li> <li>• Oxenholme pool is clear</li> </ul>
Watercreek to Hawes Bridge	4 visits between July to end of August  Est 8 hours	Almost <b>clear</b> <ul style="list-style-type: none"> <li>• Large clump of plants found at one location on the left bank- reseeded as this area has been clear for over 6 years.</li> <li>• A small number of plants found by the outflow and about 50 just below – again an area that has been clear for a number of years..</li> <li>• Otherwise right and left banks clear down to Hawes Bridge.</li> <li>• Leat and under leat wall were clear at Hawes Bridge.</li> </ul>
Hawes Bridge to Force Bridge	5 visits between July and end August  13+ hours	This area is in control and monitoring New infestation reported by National Trust at Sedgewick SD50983 88421 <ul style="list-style-type: none"> <li>• New reported area on the Sedgewick farm investigated and report sent to SCRT for site as potential rust trial ( see above). Some damage limitation work was done: removing plants from the dense blackthorn area and clearing plants from the dam overflow stream. Otherwise the site was left alone</li> <li>• The area of infestation on the right bank at SD510886 opposite Dorothy's seat is now almost clear. With just a few plants found high up the bank</li> <li>• Two patches of plants removed from the islands by the campsite at Sedgewick.</li> <li>• Small wood at SD 511879 continues to improve.</li> <li>• Right and left river banks down to the footbridge are almost clear.</li> <li>• National Trust continue to monitor the Low Park campsite and their surrounding wood handling facility. Contact made with new National Trust Warden who is willing to take responsibility for balsam control on the Sedgewick campsite.</li> </ul>
Force Bridge to A6		Not under control but SCRT reports that the infestation that had been present in the EA flood monitoring site below Hawes Bridge has now been almost cleared of balsam.
Other areas	Checked between July and September	<ul style="list-style-type: none"> <li>• SLDC land behind Heron Hill School is now virtually clear</li> <li>• Land off the A65 near Oxenholme checked almost clear</li> <li>• New housing estate off the Natland Road in Kendal clear</li> <li>• Work has continued around Fisher Tarn and Paddy Lane.</li> </ul>