

## The River Otter Himalayan Balsam Project

### Year 2 Report: Work on the River Wolf – FWAG SouthWest

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**Blackdown  
Hills AONB**



**Environment  
Agency**

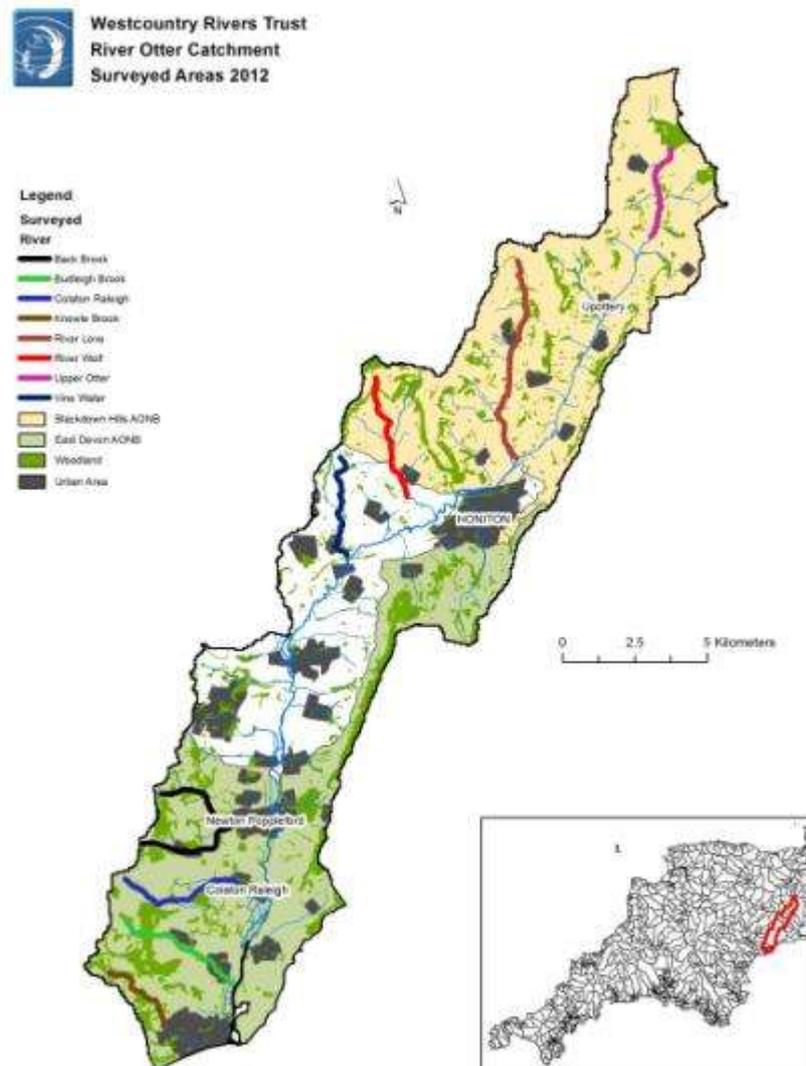
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Prepared by Neil Duffield  
FWAG SouthWest  
Dorset History Centre  
Bridport Road  
Dorset  
DT1 1RP  
Email: [neil.duffield@fwagsw.org.uk](mailto:neil.duffield@fwagsw.org.uk)

## Project Overview

The River Otter Himalayan balsam project aims to control the spread and reduce the distribution of this invasive, non-native plant across the catchment of the River Otter in east Devon. Tackling each sub-catchment in a logical way, starting at the source of each tributary and working down to the confluence where it joins the main River Otter, aims to eradicate the species initially from each tributary. Once individual tributaries have been cleared, control on the main river will be considerably more effective and sustainable from year to year. There are three main areas where the plant will be controlled by the end of Year 3:



**Figure 1:** Map shows the River Otter Catchment, with surveyed river sections highlighted.

Produced by Craig Proto (Westcountry Rivers Trust)

- **Headwater Tributaries near Upottery** (*Watchford Farm Stream, Luxton Stream, Ullcombe Stream, Fair oak Stream*)
- **Major Tributaries** (*River Love, River Wolf, Vine Water*)
- **East Devon Heath Tributaries** (*Colaton Raleigh Stream, Back Brook, Budleigh Brook, Knowle Brook*)

## **Year 2 Summary**

Following the planning phase and start of balsam removal works in year 1, the targets for year 2 built on the inroads made in the first year by returning to areas previously tackled and entering new tributaries of the catchment to cover more of the project area. Clinton Devon Estates continued to work in the lower Otter catchment along with the Otter Valley Association and a new community group has also begun working in the Tipton / Ottery St Mary area. FWAG SouthWest have pushed further up the catchment into the mid-section, working primarily on the River Wolf.

Walkover surveys on the River Wolf commenced in May 2013 to assess the location and quantity of Himalayan balsam cover along the length of the tributary. The practicality of using volunteer groups for each location was also assessed along with identifying where work by landowners or contractors would be most beneficial. Due to the late spring this year, growth of balsam was delayed by some 4-6 weeks and so the first substantial growth was not seen until the beginning of July. Clearance work was therefore delayed until the beginning of July when the first flowering plants were seen, and lasted for 6-7 weeks thereafter until seed pods develop.

Landowners in the Wolf sub-catchment were contacted in June with a mailshot and information leaflet to let them know about the project, remind them of cross-compliance requirements, and explain the methods available to control balsam. Where possible, we have tried to encourage landowners to take responsibility for balsam on their land in order to increase the effectiveness of the project during its lifetime and beyond.

## **Year 2 Aims: FWAG SouthWest**

Expand the on-the-ground work of clearing balsam by tackling a major tributary of the Otter in 'Area 2' of the catchment. The River Wolf was selected as it is the next tributary upstream in the catchment and it ties in to work being carried out on the east side of the Otter catchment around Honiton. Specific aims were:

- Detailed scoping of Himalayan balsam cover in 2013 from upper sub-catchment down to where it meets River Otter at Weston.
- Contact with landowners in the catchment to promote project, assess management requirements and identify where volunteer groups could be of assistance.
- Coordinate volunteer balsam clearing days.
- Support the existing work on the east side of the catchment.
- Identify areas further up into the catchment where work will be required going forward and contact landowners where necessary to discuss balsam management on their land.

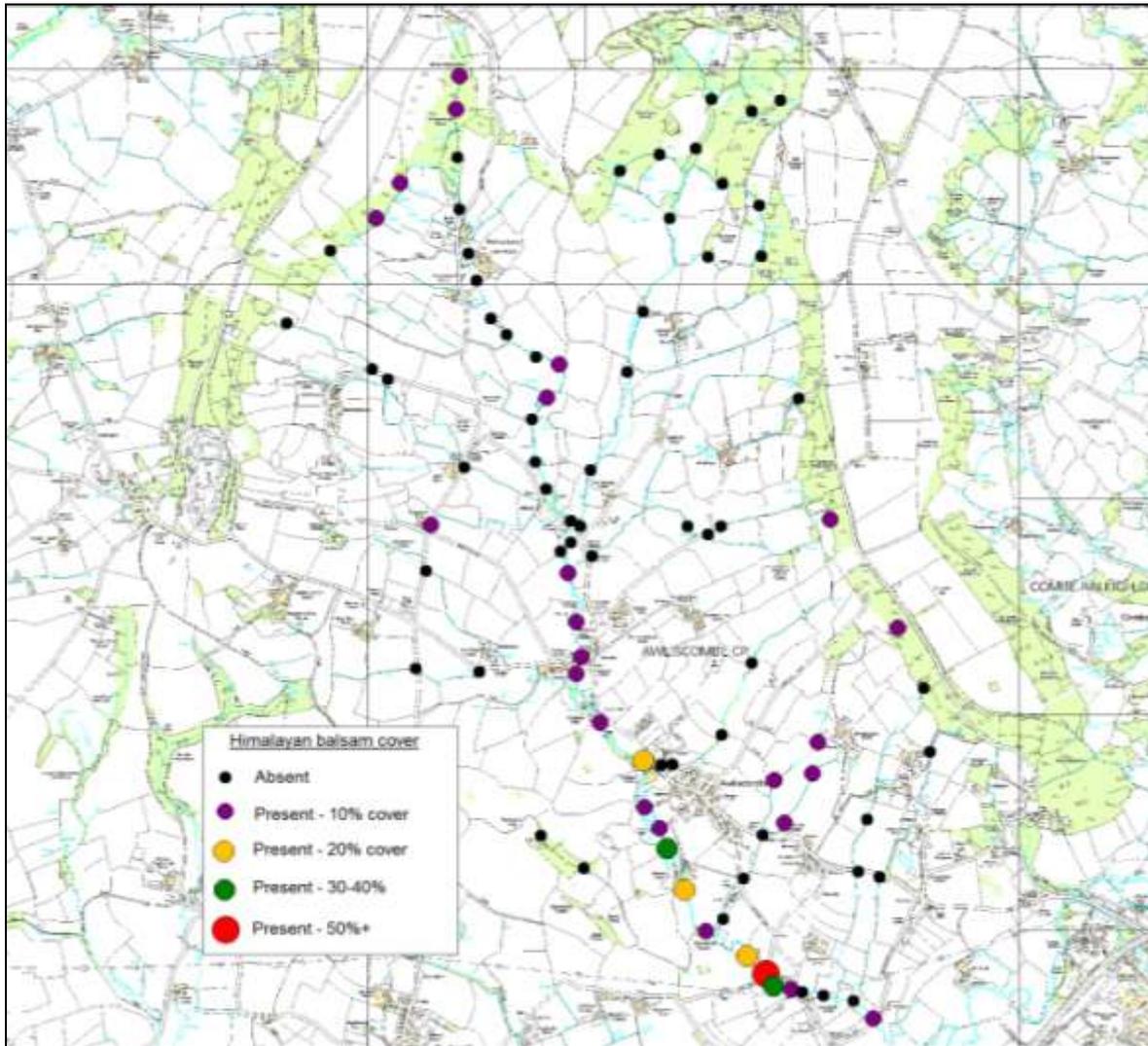
## **Himalayan balsam on the River Wolf**

The cover of balsam along the River Wolf differs between the top and bottom halves of the catchment. Above Godford Cross, the coverage was found to be very sporadic and low, often with individual plants growing. Growth is mainly controlled by grazing animals accessing up to the water edge, preventing balsam establishment on open fields. Un-grazed sections have dense native vegetation and tree cover, together with riverbanks which are not bare, helping to prevent balsam establishing. Presence around farm buildings and yards was however quite common. With only isolated plants being found in this area of the catchment, any plants found during scoping were pulled. See Figure 2 below showing distribution and level of cover in each location.

The area around Godford Cross is where balsam starts to become denser. It was not practical and safe to use volunteers where the river runs through an area of ground used for farm storage and building merchants, and so we encouraged the landowners to manage the riverbanks themselves here. Strimming was carried out during August.

Downstream of Godford Cross, balsam becomes more prevalent. The first section could be adequately controlled by pulling individual plants in areas where cattle could not access during scoping by FWAG SW. Isolated pulling, cutting and spraying was encouraged also for farmers on this stretch.

Where the river passes through Awliscombe we found larger areas of balsam growing, and so volunteer groups were targeted from here downstream to supplement control that we encouraged landowners to undertake. Overall 285 volunteer man hours were completed on the River Wolf over a 10 week period involving manual pulling of balsam. A further 30 hours were spent scoping the river at the beginning of the season, also involving checking areas of woodland and likely growth sites away from the main river. Following an initial, intensive pass during July and August, a couple of follow-up days were used at the end of the season to capture regrowth.



**Figure 2:** Himalayan balsam distribution and cover in the River Wolf catchment, summer 2013

It was originally hoped that we could target balsam removal from top to bottom of the River Wolf during 2013, and although we managed to work along most of the length, there are some short sections where access was not granted, or work was not carried out where landowners had agreed to implement management.

The Environment Agency provided a large input through 5 different teams, numbering from 6 to 12 people, joining the project for environmental leave days. These days proved highly productive in terms of quantity of balsam removed and area covered, and also talking to the various teams to promote the control of balsam in their everyday work was valuable.

We had further volunteer support from small groups made up of university graduates who had contacted FWAG SouthWest for volunteering opportunities, and members of local communities Awliscombe and Honiton. With the River Wolf being a comparatively small river with steep banks, the ideal group size was 6-10 people for one supervisor.

## **Land Access**

Permission to access land along the River Wolf was gained through contacting landowners with existing personal relationships, or in the main part, using an OS map and MAGIC online software to identify landowners and find contact details through online web directories. All farmers contacted were then asked about the land they owned, knowledge and presence of balsam, and followed up with management advice or requesting access where necessary.

In some circumstances this method did leave some small holes where we were unable to gain advanced access agreements, or where landowners did not want people accessing their land. Where this happened we either circumnavigated these areas, used public access to complete the survey where possible, or asked the landowner to survey and attempt balsam control where possible. Often these small areas were visible from roads or public access tracks so the data wasn't compromised completely. On a couple of occasions access was granted on the day after calling on the associated premises.

Areas we were unable to target were stretches where the river runs through residential properties and gardens. Along these stretches contact with the owner was usually made on the ground to talk about the project and ask about balsam presence in their garden. In the majority, home-owners seem to be removing balsam from their gardens by their own initiative as they do not like how the plant dies back in late autumn leaving bare riverbanks.

## **Health and Safety**

Health and safety briefings were extremely important over the course of the season due to the number of individuals that participated each time. Risk assessments were created by FWAG Southwest covering all risks associated with working in close vicinity to a watercourse or farm.

The Environment Agency always included new workers each session; however it was always vital to remind participants of the risks each time they enter the field, especially those team members who weren't field-based and have not had much experience working in outdoor environments.

The streams worked on were relatively small however there were still pool sections and loose, slippery boulders to be wary of. Participants were advised to not walk along the river bed or work in precarious locations on the bankside, and working in groups of 3 or more people was maintained on all work days.

## Removal Method

*Pulling Balsam* – This was the most commonly used method of controlling balsam along the River Wolf. This ensures that the whole plant including the root is removed, helping to stop any regrowth from occurring, and also allows for the plant to be selectively removed, leaving the native vegetation untouched. A disadvantage of pulling is the time it requires to tackle large areas, although this is compensated for by using volunteers.

General practice when pulling balsam is place the pulled plant out of reach of the soil, such as on tree branches. Due to the extent of the balsam found, the pulled plants were heaped in large piles, preferably in dry areas out of the flood plain. Long grass was also placed on top of the pile of pulled plants to suppress growth. This was found to be very effective, and during follow up visits in September, waste piles were checked and found to be well-rotted, showing little signs of regrowth; where regrowth did occur it was removed. Any areas of bare ground left where balsam had been extracted was gently trampled down to encourage soil to bind together and help prevent erosion.

*Balsam Strimming* – This method is generally used in locations which are too large for balsam pulling to take place. Compared to pulling this method requires less man hours, but is restricted to locations where machinery can reach. Strimming is a quicker method but leaves the area strewn with balsam stems and roots still in the ground.

Although the work teams did not use strimming at all, a couple of farmers along the river used this method with some benefit on larger stands around their farms. Regrowth was quite dense following strimming although grazing and repeated 'bruising' also proved effective when the plants were re-growing.

## Volunteer groups

The project has been able to take advantage of various groups and individuals in the Otter catchment. The lower areas of the catchment have predominantly worked on by Clinton Devon Estates and the 'Otter Valley Association' (OVA). The mid-section, where FWAG SouthWest's focus has been this year, has joined up with the Environment Agency, Honiton Town Council and residents of Honiton and Awliscombe. A record of volunteer groups who attended and number of hours contributed are recorded in Table 1.

The sites generally offered easy access for volunteers. In woodlands the balsam was located on flat, sheltered areas adjacent to the river. Where balsam was located along riverbanks or in the river bed, access was gained from the top or bottom or banks as appropriate. All sites were located only a few minutes' walk along a track from the roadside.

The Landowners were encouraged to clear any balsam located on their land, with varying levels of interest and participation. As the project pushes up the catchment into the

Blackdown Hills AONB next year, we will hopefully work alongside AONB and Neroche volunteers, and groups around the Otter headwaters.

Date	Group	Number of volunteers	Hours	Man hours	Location
19/06/2013	FWAG	1	5	5	Culverhayes Farm to Titford Cottages
03/07/2013	Environment Agency	12	4.5	54	Marles Farm to Tape Lane
10/07/2013	FWAG & local vols	2	9.5	19	Titford Cottages to Godford Cross
24/07/2013	Environment Agency	7	4.5	31.5	Marles Farm and Lower Mill
29/07/2013	FWAG & local vols	6	4.5	27	Source and Wolverstone Moor
31/07/2013	Environment Agency	10	5	50	Tape Lane to Cherry Bridge
05/08/2013	Environment Agency	9	5.5	49.5	Northcote Stream, Honiton
22/08/2013	FWAG & local vols	4	5	20	Woodcroft copse and Wessington trib.
02/09/2013	FWAG	1	9	9	Culverhayes to Godford Mill
25/09/2013	FWAG & local vols	4	5	20	Woodlands above Wessington
			57.5	285	

**Table 1:** Record of FWAG South-West volunteer work parties on the River Wolf in 2013



**Figure 3:** Environment Agency group 1, July 2013.

### Assessment of work on River Wolf, 2013

As a first effort to tackle Himalayan balsam on the River Wolf, we have had reasonable success in reducing the cover and spread of the plant. Engaging with the landowners in the area has highlighted the extent of the problem, and hopefully encouraged them to incorporate balsam control into their timetable over the coming years. The areas where the biggest effects have been noticed so far are the upper reaches above Godford Cross, where individual plants were removed, and the stretch from Awliscombe to Cherry Bridge Farm, where balsam was growing in significant stands amongst the riparian woodlands. The woodlands and field margins around Tape Lane had particularly dense balsam growth and

so the area was a prime target for removal. Areas cleared by work parties were re-visited later in the year, and the growth of native vegetation was encouraging (see figures 4 to 6).



**Figure 4:** View upstream from Tape Lane ford showing area where stand of balsam removed earlier in year; note dense re-growth of native vegetation protecting riverbank.



**Figure 5:** View downstream from Tape Lane ford showing balsam-free banks.



**Figure 6:** View from Cherry Bridge showing area where stand of balsam removed earlier in year; note dense re-growth of native vegetation protecting riverbank.

Undertaking a more-detailed scope of the Wolf sub-catchment, including areas away from the river, has shown that the larger stands are mainly restricted to the riparian zone, although there are some islands of growth around the valley. We have encouraged landowners to control areas away from the river to free-up volunteer time for riparian areas.

The late spring did cause some issues with regards to timing of volunteer groups as there was less balsam than usual for the work days at the start. This pushed everything back by 4-6 weeks and made arranging some work days problematic, whilst it also proved difficult to know all areas where balsam was growing. This has hopefully been captured during this season and so, whilst we have been able to reduce the cover in many areas this year, we also have a much better idea of all areas that need targeting next year with the support of the landowners.

The scoping that was undertaken (see figure 2) guided where work parties were carried out, and all areas where balsam was found to be present have received removal effort by volunteers or landowners during the season.

Using volunteer groups and environmental leave days proved to be very effective for the Wolf in lieu of using contractors to trim or spray areas. The steep-sided banks and small, dense woodlands are not suited to strimming (e.g. Figure 7). Hand-pulling removes each

individual plant completely and without scattering cuttings, allowing for material to be easily piled up in ‘rot-piles’.



**Figure 7:** Area of woodland on Tape Lane showing dense, native understory which had been cleared of balsam earlier in the season.

Overall the clearance has progressed well and there should be significantly less balsam to tackle on the Wolf next year, enabling further progress on other tributaries.

### **Northcote Stream**

In addition to working on the River Wolf, we assisted Cllr Roy Coombs and Honiton Town Council (HTC) with clearance of balsam on the outskirts of the town towards the end of the pulling season. HTC have been working hard for a number of years to try to eradicate balsam in the area, with significant gains being made. One area where they have encountered difficulties is on farmland around the Northcote Stream area, and FWAG SouthWest were in a good position to approach the farmers here and work with them to tackle remaining areas of balsam. This involved contact, providing advice and reinforcing cross-compliance requirements, and bringing in volunteers to assist with removal.



**Figure 8:** Section of Northcote Lane 6 weeks after balsam pulling. A few Plants were found re-growing and so were removed.

### **Future work**

#### *Returning to the River Wolf*

It is imperative to return to the River Wolf in 2014 to build upon the progress made this year. The work undertaken in 2013 will have reduced the abundance of balsam that returns, though the seed bank and missed plants will mean that eradication is impossible in one year. The man-hours required to clear the same lengths of river should be significantly less in 2013 and will free up time to focus on tributaries further up the catchment (River Love, Vine Water). We have also enlisted the help of 2 local volunteers who would be happy to undertake scoping of the River Wolf early next summer prior to pulling days; this will free-up time to move into new sub-catchments next year and will hopefully build a legacy of local, proactive balsam control beyond the project funding.

The Environment Agency teams all expressed an interest to return to help out on the project next year and the River Wolf would seem like an ideal place to apply their time to again. We hope to work more closely with the Blackdown Hills AONB and Neroche volunteers next year as the work extends into the AONB region. Alongside the professional partners involved in 2013, it is very important to continue supporting and encouraging the voluntary sector.

### *Focus on new tributaries*

The next areas that the project hopes to target are the River Love and Upper Otter. The coverage on these tributaries based on WRT scoping in 2012 (see Appendix 1) looks to be lower than the coverage on the Wolf, and so it's hoped both areas can be tackled simultaneously along with the assistance of the AONB and its volunteers. Although the balsam distribution is more sporadic than in the lower reaches of the catchment, getting around all areas and landowners on these tributaries proves time intensive.

### *Education programme*

Part of our work this year has involved educating landowners, land managers and the members of the local general public about Himalayan balsam and the threat it poses. This has included distribution of the Himalayan Balsam leaflet to increase understanding of the problem and also methods of control. If the individuals take responsibility at the field scale, the control at the catchment scale would become more realistic.

We attended the Honiton Show in August 2013 and received plenty of interest and support from members of the local rural and farming communities. The spread of the plant would seem to be a key concern in the area, although few people knew about the scale of the problem with regards to riverbank erosion. Previous liaison with land owners in the Upper Otter tributaries has revealed that some recognise the plants description but don't know what it is. Others recognise the plant but don't understand the problem or the methods of control. This suggests that landowners are not deliberately ignoring it on their land, and the importance of wider education to encourage responsibility of the problem.

### *Local groups*

The Otter catchment seems to benefit from a having a number of interested groups in the local community. In the mid- and upper sections of the catchment, the key resources for volunteers are:

- Honiton Town Council and councillors: Mainly work around the town and also at Otter head lakes. Useful to link up with for tributaries around Honiton.
- Blackdown Hills AONB and Neroche: Although not worked with much this year, work will firmly be in the AONB area next year which will make it easier for their volunteer groups to access these areas. AONB and Neroche need plenty of notice to coordinate volunteer days to avoid clashing with their own volunteer days elsewhere.
- Local people and graduate volunteers: A few members of the local community were involved this year and would be interested in being involved next year. The graduate volunteers who were involved are likely to have moved on by next year.
- Environment Agency: The EA are keen to be involved with environmental days again next year and provided an enthusiastic and efficient removal team. Proved particularly key outside of local patches of other groups.

**Appendix 1: 2012 cover of Himalayan balsam on Rivers Wolf and Love**

