

OVA Himalayan Balsam Project Report 2015

*HB = Himalayan Balsam
CDE = Clinton Devon Estates*

The consensus is that 2015, the fourth year of our project, was a good year for Himalayan Balsam. In other words it grew ever more profusely wherever allowed and popped up annoyingly in places where it had no right to be! All of which implies that it has been another energetic year for those poor OVA souls attempting to establish the Colaton Raleigh brook as an HB-free zone. Nonetheless the team has done well and we can look back with considerable satisfaction. Have we permanently cleared the Colaton Raleigh tributary valley from source to flood plain? No. Have we improved the situation compared with 2014? Most definitely.

To explore this conclusion this report covers four topics:

- Publicity
- Volunteers
- Achievements
- Conclusion and targets

Publicity

In 2014 a great effort had been put into publicity, epitomised by the manning of a tent on the Otter footpath by the aqueduct on two Saturday mornings in high season (late June- early July). A gazebo had been purchased and a set of new laminated posters produced, along with leaflets and lists for new volunteers to sign. The gazebo had been erected and manned by volunteers while others pulled and stacked Himalayan Balsam (HB) on the adjacent river banks.

The difficult decision was made not to repeat the exercise this year. Although volunteer numbers did increase dramatically in 2014, most came from other sources, only two signing up in the gazebo. Moreover the whole exercise meant tying up the team for three Saturday mornings in high season with the obvious implication that, since we aim to have two outings per week clearing HB, we would be working on “one cylinder” at a crucial stage of the season when every effort is needed to pull HB before seeding starts in early-mid-July.

Volunteers

As can be seen in Table 1 below, volunteer numbers in 2015 (19) remained above those of the first two years but slipped back disappointingly from the 27 who participated in 2014. The table also shows an estimate of hours worked. Usually the team works a 2-3 hour shift from 9.30 to noon or thereabouts. As can be seen, the reduced number of volunteers managed just over 300 hours in total, significantly less than in 2014 (375) but still well above the two earlier years. In fact it worked out, as in previous years, that we usually had a team of half a dozen or so every Thursday morning but only one or two on Saturdays.



**Photo 1 Ready to go! CDE and OVA Volunteers at Goosemoor Farm; Newton Popleford.
Opening Day 18th June 2015**

In fact the number of volunteers fell during 2015. Table 1 below allows comparison over the four years of the project:

Year	Total Participating Volunteers	Total Outings*	Estimated Total Hours**
2012	14	94	234
2013	16	95	245
2014	27	150	375
2015	19	111	301.5

Table 1 Volunteers 2012-15

- An “Outing” is one volunteer completing a work session.
- Based on my log.

The 19 volunteers this year included 5 new members so that only 14 of last year's 27 re-appeared this year – barely half. This high drop-out rate is disappointing but has happened every year and was commented upon in previous reports (eg 2014). The probability is that some will re-join us next year. Of the 5 new volunteers, 2 are non-resident (from Cumbria and the Netherlands) so that the number of new local volunteers is just three. Not that this is by any means insignificant! It often happens that one or two new arrivals immediately join the gang of hardy “old faithfuls” who form the core of the team and such was the case this year, as can be seen in Table 2 below.

Table 2 shows the output that individual volunteers managed this year. It is the first time that I have referred to individual volunteers and I trust that it offends no-one. The data derives from my weekly records. I have not included my own data are inflated by the inclusion of “recces” undertaken each week to establish what needs doing on the following Thursday and Saturday outings. These recces are largely observational, so should not be included with the other data.

Before saying anything more I want to thank all those who feature on the list below. Wonderful! It is worth repeating the obvious that every little bit counts. A little arithmetic shows that, in total, all those who managed just one or two outings put in 25.5 hours of work. That's a lot of HB plants finding a premature end, each with a potential to generate 800 seeds. So if any readers are put off from joining our outings because of a worry about long-term commitment, forget it! Twenty people coming once a year for two or three hours can achieve a great deal. You will always be welcome.

Name	Outings	Hours	New Member
Gillian Hamilton	18	38.0	
David Lindsay-Halls	11	30.5	
Kevin Creton	8	24.5	
Ann-May Siddorn	8	21.5	
Mike French	7	20.5	New
Clare Meiklejohn	6	17.5	
David Hatch	4	15.0	
Gillian Withycombe	5	15.0	
Rose Jones	4	12.0	
Lynn Jones	4	12.0	
Helen Shute	3	8.5	
Chloe de Vries (Non-Res)	2	6.0	New
Jacqui Ruhlig	2	5.5	New
Trevor Waddington	1	3.0	
Diane Waddington	1	3.0	
Joel Budd	1	3.0	New
Tom Miner	1	3.0	
Pauline McDonald (Non Res)	1	2.0	New
Total	111	301.5	

Table 2 Volunteers: Individual Outings and Hours

Achievements

The Number of Sweeps Achieved

In last year's Annual Report (*All Annual Reports are at our website: www.ovapedia.org.uk, then selecting "Landscape and Natural Environment" and then "Himalayan Balsam" followed by "OVA Himalayan Balsam Project Report 2014."*), I summarized the results achieved in the years 2012-14 by producing a series of maps, one for each year. In each, we commenced at the highest known location of HB on the Colaton Brook at the eastern end of Little Mead Copse (GR 059869). We then worked downstream towards the edge of the Otter flood plain at Clinton Devon Estate's Dairy Farm at the bottom end of Colaton Raleigh village (GR 084871).

By the use of a green shading system, the maps showed our progression towards implementing our target of three sweeps along the whole length of the Colaton Raleigh brook. In 2012 the hugely infested block of Stowford Woods in the upper reaches (and the swamp immediately downstream) had prevented any major penetration down to the middle and lower sections of the Colaton Brook. Only this upper section received three sweeps. Then, in 2013, in addition to three sweeps in the Stowford area, the Kingston sub-tributary received two and there was also a single sweep downstream through the village to Colaton Raleigh church. Below that: nothing.

In 2014, our target was almost achieved. The whole of the Colaton Brook, including its two tributaries, received three sweeps with the sole exception of the lowest reach: below Colaton Raleigh church. This received just two. This year (2015) I have not included comparable maps because we achieved our target: the whole tributary valley receiving three sweeps. The map would have shown a continuous band of green throughout its length, with no other shades to indicate just one or two sweeps. **That is a very positive achievement.**

The Number and Timing of Sweeps

There are some interesting issues relating to the number of sweeps and it is worth exploring them. The target of 3 sweeps should not be taken for granted. Why three? Why not just one? or four? The answer involves an understanding of the constraints on timing.

Back in 2012 when we began our campaign, a view was widely held that pulling HB had to stop when the flowers bloomed and seedpods had formed. There was no point in organizing outings after, say, mid July when this stage is reached. If it takes until mid-July to work right down the Colaton Brook, then stick at one sweep!

But there is more to it than that and it is worth probing deeper. Certainly it is the case that there is no point in tackling a bloc of HB where the seedpods are already popping. The disturbance caused by pulling will simply accelerate seed dispersal. The date at which this happens is therefore a key one in planning operations for the year. As it happens, this stage is reached at different times at different locations as might be expected. It seems to be reached earliest down on the flood plain and latest in the headwater areas of the tributaries. Also the date is delayed in the shade of trees.

To be more specific for 2015, it was striking that, down by the Otter flood plain at the CDE Dairy, **the seed-popping stage had been reached by July 17th**. We deliberately do not tackle the flood plain but (on a recce) I was impressed and appalled to see a solid wall of tall HB, well over 6ft tall – and popping happily. However, on that same day, along the stretch of the brook upstream of the main road through Colaton Raleigh village, and running along by a set of horse paddocks (GR077876), many HB plants were not only nowhere near popping, some were only just about to flower. They would reach the seed-popping stage perhaps by the end of July or even early August.

Thus far then we have a case for planning the first sweep to start as soon as plants are high enough to pull easily (Mid-late June in the Colaton Brook) and then conducting a single sweep down to the flood plain by mid-July.

To be a little more explicit about the ending of the first sweep, we have in the past two years pushed right up to the time at which popping starts. To do this we decided two years ago that, when blossoms have dropped and seedpods have appeared, we can continue attacking at this critical stage for another week or 10 days by snipping trusses into plastic bags. Once they start popping, this becomes too unreliable and the attack has to be abandoned. But it is well worth continuing as long as possible because each plant will have anything up to a dozen trusses of maybe 6-10 pods. Each pod carries a dozen seeds and the Royal Horticultural Society estimate that a single plant can produce up to 800 seeds. Such snipping obviously slows down our progress dramatically as the stalk still has to be pulled. If it is left in the ground, it will certainly produce shoots and fresh flowers and seeds well before the summer is out. Because of the slowness of snipping, we conclude that it is better by far to pull HB well before the seedpod stage has been reached ie before there are any flowers or when there are just young flowers. This of course determines the area that can be covered, given the size of the volunteer team. In our first year the clearance of Stowford Woods, which had a continuous "forest" of HB throughout, took so long that there was no time to proceed downstream to the village let alone the flood plain.

The above argument indicates there is a strong case for a single sweep throughout the length of the Colaton Brook between say, mid-late June, when plants up the tributary valley are large enough to pull and late July or early August when most will be at or near the seed-popping stage. But this is only an argument for a single sweep at this time? Why three? There are at least two reasons:

- In the first place it seems that seeds, when catapulted from their pods can remain in the soil for at least two, possibly three years. Obviously those that we see growing in early summer were produced by parent plants in the previous year or earlier. But it seems that not all seeds germinate at the same time because it is quite possible to find small plants that have recently germinated right through the summer and even as late as early October! So seeds are germinating throughout the summer and early autumn and they need to be pulled in follow-up sweeps.
- A second reason for follow-up sweeps is that it is inevitable that plants will be missed in a first sweep, above all small seedlings which may well be invisible especially if growing, for example, in a bramble patch or nettle bed. They will be much easier to spot and pull during a follow-up sweep and of course, it is important that that happens before these missed plants reach the popping stage.

Given the above it can be understood why, in 2012, and to a lesser extent 2013, the first sweeps not only took so long but why, on 31st July 2012, we had to return to the start point at the head of the brook. Missed plants and late germinators were in full flower and screaming for attention. To have continued

on downstream would have meant that all the effort of the first sweep would have been wasted. Our newly cleared stretches would have been sprayed with new seed. A second sweep was urgent. Added to that ... the same situation developed just over a month later and a third sweep was just as essential unless the achievements of the previous two sweeps were to be thrown away. That third sweep has always run into October by which time falling temperatures could be expected to halt further growth.

What has happened in 2013, 2014 and 2015 is that we have been able to progress ever further downstream before being called back to the start point. This is because we have been successful in progressively reducing the amount to be pulled so that sweeps can be faster. With luck this progress will continue to the stage when we will complete the first sweep of the Colaton Brook so swiftly that we will be able to break out to tackle other tributary valleys. Indeed, in a way this happened this year. After a joint recce with CDE and the Newton Poppleford Group in early June it was decided that the OVA and CDE should start off the season, not in the Colaton Raleigh Brook (as in previous years) but on the Back Brook in Newton Poppleford, helping our neighbours. Hence on 19th June we assembled with a CDE team at Goosemoor Farm, just above the village on the Back Brook and tackled a wet area that has long given problems (Photos 1 and 2).



Photo 2 On the wetland at Goosemoor (Newton Poppleford) on 19th June, the Opening Day of the 2015 campaign. Clearly plants in this part of the wetland are very small and pulling therefore difficult (but see Photo 3 below)



Photo 3 Opening Day Goosemoor 19th June 2015. Plants in drier parts of the Goosemoor wetland were taller (see Photo 2) and easier to reach.

Returning to the Colaton Brook we can see in Table 3 below the timings of the three sweeps that have become standard. Thus it was that in this, our fourth season, we again planned three sweeps. The timings are shown below together with those for 2014. They are very similar, perhaps not surprisingly. Broadly June-July is the month of the first sweep; August the second; and September-October the third.

	2015	2014
First sweep start	19 June (25 th)*	13 June
First sweep finish	23 July	31 July
Second sweep start	25 July	7 August
Second sweep finish	20 August	31 August
Third sweep start	30 August	2 September
Third sweep finish	13 October	20 th October

Table 2 The Timing of Sweeps, Colaton Brook; 2014 and 2015

* 19th June was the first team outing but it took place in in Newton Poppleford. The first attack on HB in the Colaton Raleigh valley was on 25th June in Stowford Woods.

What was achieved in 2015?

So how was it in the 2015 campaign? What was achieved in these three sweeps?

In the 2014 Annual Report I produced a series of maps showing the situation at the start of the third and final sweep. The aim was to help answer the same question. What was encountered at that stage last year was an indicator of the impact of all our efforts in 2012, 2013 and two sweeps in 2014. So I am using the same approach this year. The Himalayan Balsam that we found during that last sweep in 2015 tells us how we are getting on after nearly **four** field seasons. Our aim of course is to eliminate the plant entirely. But we know from the experience of others (most notably the Tale valley Trust based on Escot House) that, given the versatility of HB, a realistic goal is to bring a valley under control with ever-decreasing effort. How are we getting on?

Below I present my (with apologies for my inadequate cartography) sketch maps representing the experience during that last sweep in 2015.

It will be helpful to appreciate that the broad types of location can exist: positive and negative. Each has two sub-types:

First the **Positive** locations:

- First, there are areas in which there was HB at the start of the campaign in 2012 and which at the beginning of the third sweep were clear. These are shown by the green on the 7 maps below.
- Secondly, there are areas where HB is still encountered but in very reduced amounts. Many of the red dots on the maps that follow represent just a handful of plants whereas in the past there will have been serious “Hotspots” (a term that I do not precisely define but which consists of a flourishing mass of perhaps dozens of plants).

Then there are the **Negative** locations:

- First there are areas which had HB in 2012 and which remain problematic.
- Then there locations which were clear in 2012 but which are now problematic; or which we were not involved with in 2012 and are now problematic.

Let us look at the maps with these categories in mind.

The Positive Locations

To help in the interpretation of the maps it will be helpful to look at Photos 4 and 5 below. They are taken in almost exactly the same location (the trees can be matched) on almost exactly the same dates, very early in the season, but in different years: 2013 and 2015. Photo 4 was taken on 13th June and Photo 5 on the 18th. As can be seen, the contrast is gratifying, a fairly dense carpet in 2013 having given way to a thin scattering of plants two years later. The location of this photograph can be seen on Map 3 (below) “Stowford Woods”. The near-rectangle of Woodland (“Stowford Woods”) shown on this map has a small triangular enclosure at its south-western corner. The photo location is at the top of this triangle where I have located a couple of red dots (HB) by a tree symbol. Throughout the set of maps, small dots will indicate a situation similar to Photo 5. “Hotspots” with maybe dozens of plants are shown by bigger blobs of red. Clearly the maps are very crude but with the above example in mind it becomes easier to visualize what the maps are portraying.



Photo 4 Young Himalayan Balsam on 13th June 2013.

As can be seen, there was then a fairly dense cover of HB although this represented a considerable improvement over the preceding year 2012.



Photo 5 The same on June 18th 2015

Just two or three HB plants eg centre, left and right foreground. Compare with Photo 4 above.

Undoubtedly the biggest Positive area is Stowford Woods itself ... the large green rectangle on Map 3. In 2012 this had been a daunting block of Himalayan Balsam in 2012 (see photographs in Annual reports 2012 (pp17 and 18) and 2013 (Photos 2, 3 and 4). Virtually the whole of that rectangular block had been a sea of Himalayan Balsam and because of its extent, it proved impossible to do more than clear the wood three times in that first year, 2012. The rest of the valley had to wait. To have it now virtually clear is the biggest achievement.

But it is not the only one and it is worth pinpointing the following:

- On map 1: the long sweep of green (cleared) along the hedgerow on the south-east side of the brook and most of the field on the north side.
- On map 2: again, the long sweep of green along the hedgerow on the south side of Back Lane and again, almost all of the field on the north side of the brook. That particular field had been where we launched the campaign in the rain on 7th June 2012. It was heavily infested at that time.
- On Map 4: along the deep trench of the Kingston tributary north-east of Kingston Farm. This is now almost wholly clear (not more than two or three plants) on the leg that runs SE, while, below that on the leg running north-east towards the orchard, it is completely clear.

- Also on Map 4, a formerly very extensive “bramble haven” hotspot (a zone of brambles providing perfect cover for HB) on the small sub-tributary just south of Selwood Farm House has virtually been eliminated.
- On Map 5: in the west in the stretch running east from Kitts Hayes; and in the centre in the ditch running south from Pophams Farm.
- On Map 6: in the west running along the north side of the horse paddocks; and in the east in the adventure playground.
- On Map 7: Running from Place Court House right down to the dairy there are long stretches that were clear in the 3rd sweep in 2015.

Clearly some satisfaction is justified. However

The Negative Locations.

There is one location above all that prompts exasperation and negative reactions:

- The Swamp. It can be seen on Map 3 downstream (ie NE) of the green rectangular block of Stowford Woods. It has continued almost unchanged for 4 seasons and will continue to absorb excessive physical effort. Certainly it has been improved in the upstream half but plants can still be found all over its area. I have therefore, this year, shaded it with red stripes. One major difficulty posed by the swamp is that the dense vegetation of rushes is perfect for concealing the young HB plants. It will always be the case that many will be missed. This is what makes it so important to repeat sweeps before these missed plants burst through to the seeding stage. We must remain patient and positive!

There are other less intransigent negative areas where HB has always been found:

- Map 2 below: “The Avenue”.
- Map 3: The Little Swamp. The spread of brambles has not made this small triangular area any easier.
- Map 4: the ditch by the Orchard above Kitts Hayes House.
- Map 4: The field on top of the “cliff” by Kingston Farm.
- Map 5: The middle section of the brook in the vicinity of Pophams Farm and The Sawmills.

All of these are improving and we could well eliminate them in the near future.

Finally there are two further categories of Negative Locations: those which are either completely new or with which we have not been previously involved.

Three areas surfaced in the third sweep this year:

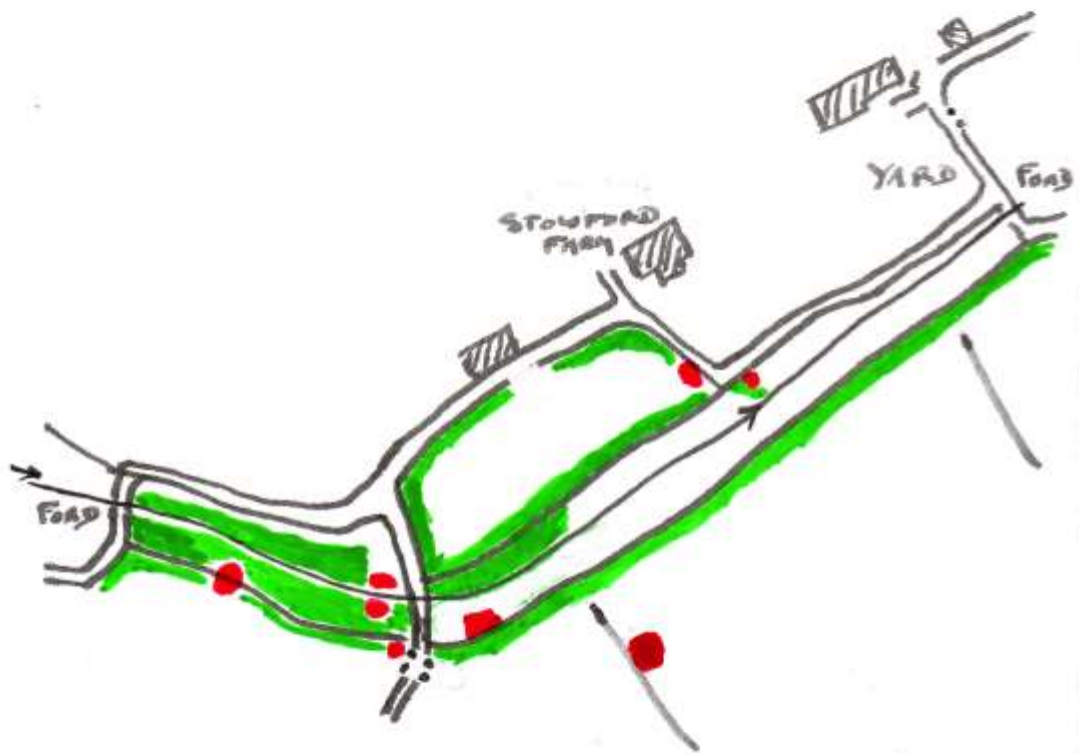
- On Map 3: in the plantation above Back Lane (ie SE of it). This may have been due to a misunderstanding with Clinton Devon Estates a few years ago when OVA were under the impression that CDE would tackle it. We became involved for the first time this year but could not quite complete

it in the third sweep. The plantation area is quite large and the plants widely scattered.

- On Map 1: I made the unwelcome discovery of a large new “Hotspot” in the field upslope (ie SE) from the long sweep of cleared land along the field boundary referred to above. This happened during the third sweep. Probably 20 or so 7-8ft “giants” towered over head-high maize and were happily popping seed in all directions. Emergency snipping of trusses revealed that most had their roots in the field boundary bank shown on the map. There has never been HB in this location before and its discovery was an unwelcome surprise!
- On Map 7: There is a short road running south up the hill (West then south) from “Paul’s Cottage.” From this, a footpath branches to the right (west) and climbs further. One of our members (David Hatch on an OVA walk) reported serious infestation along this lane and we cleared a lot of it at short notice in the third sweep. But sadly we discovered that the HB also runs in a belt below the path right down to the field boundary of the big meadow with which we have been familiar all these years (but not with the upslope margin).

These three discoveries late in the year were of course disappointing but, unlike the swamp, there is no reason why they cannot be eliminated in the near future. As to the swamp ... we will have to enjoy picnics there for a few years to come!

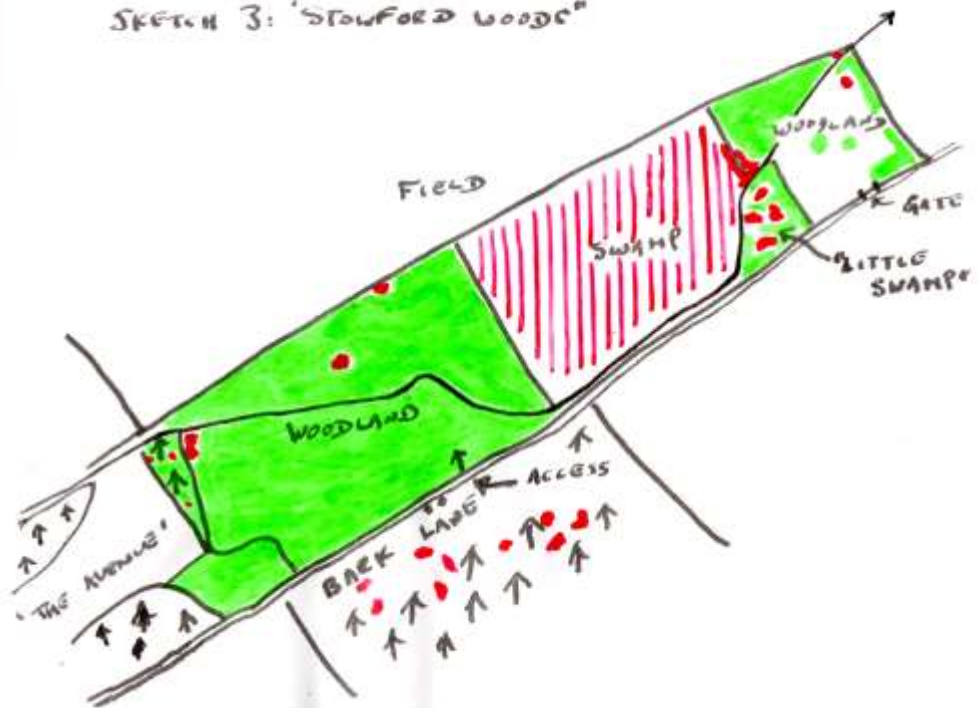
SKETCH 1 STOWFORD.



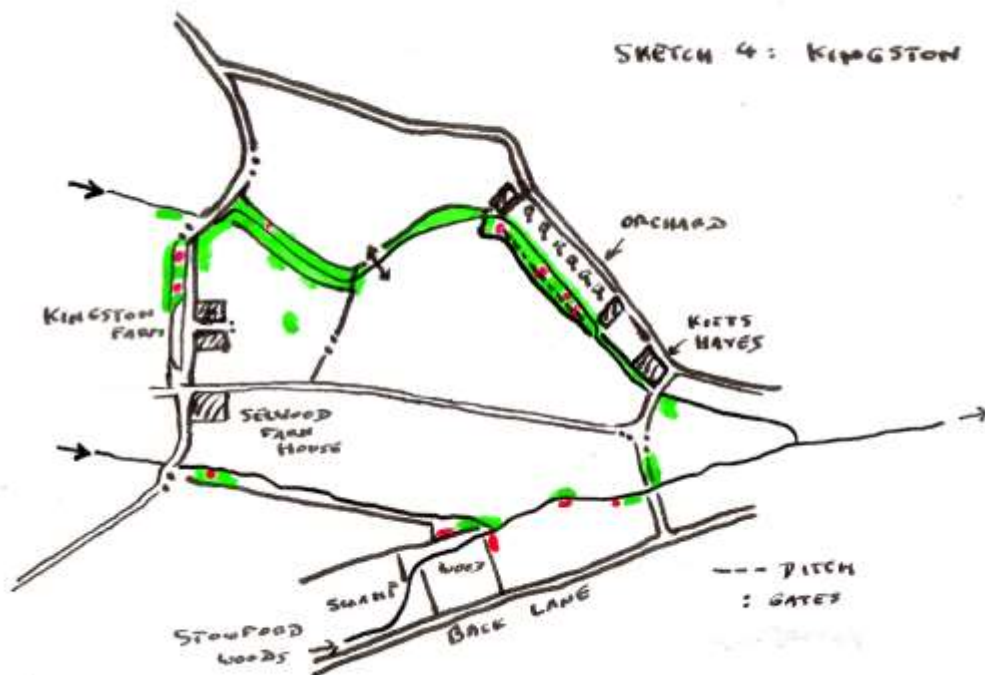
SKETCH 2: 'THE AVENUE'



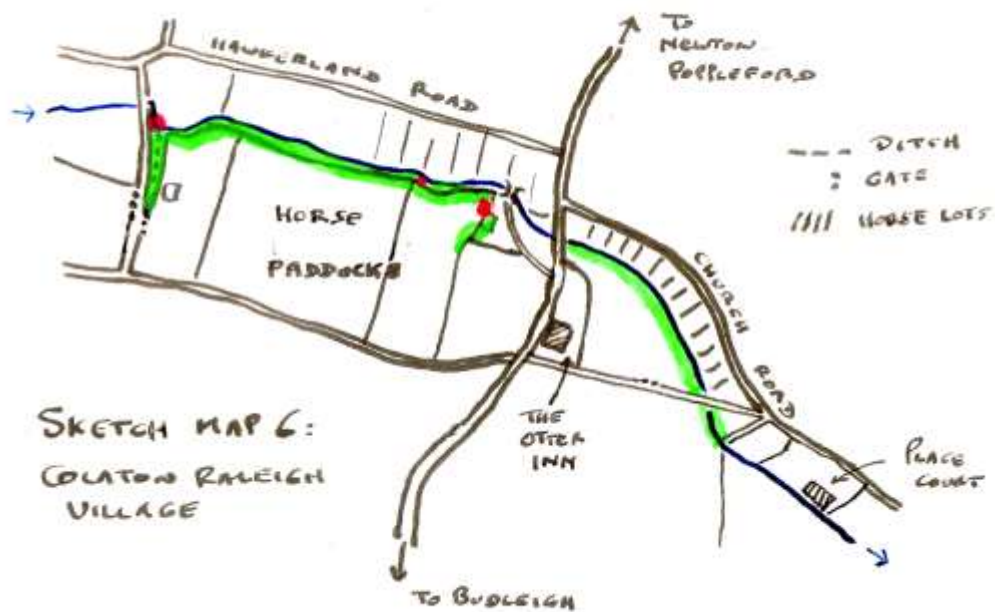
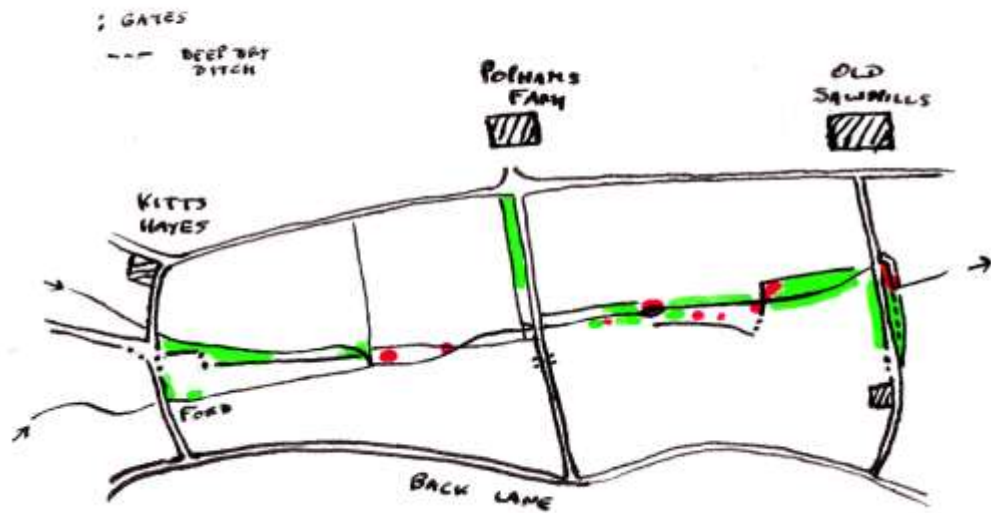
SKETCH 3: 'STOWFORD WOODS'

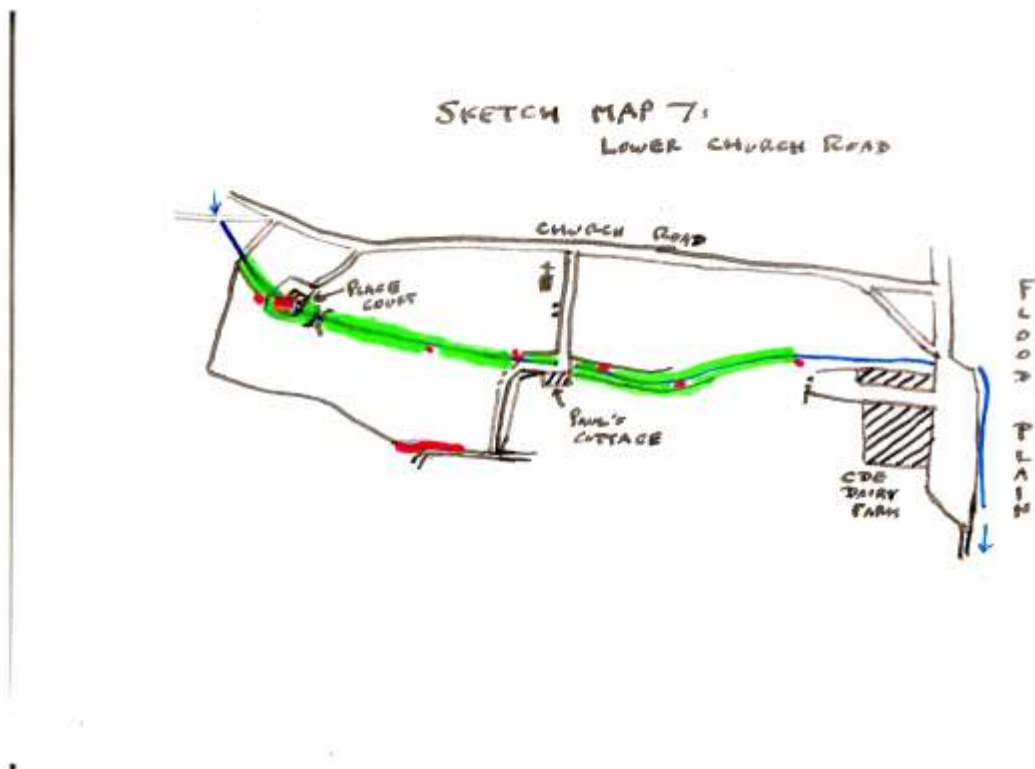


SKETCH 4: KINGSTON



SKETCH MAP 5: POLNAN'S FARM





Conclusions

Last year (see 2014 Annual Report) I set 5 targets for 2015. Sadly only two were achieved.

- We did not increase the number of volunteers to 40. Quite the contrary our numbers diminished. Perhaps we need to look again at the decision not to go for the gazebo and publicity on the Otter footpath.
- We did not eliminate all the “hotspots” identified that year, although some were, as we have seen.
- We did not link to Iain Ure and his brushcutter work (see Iain’s report on this OVA website) moving from Otterton along the edge of the flood plain towards Colaton Raleigh. At the key moment, when we had finished our first sweep down to the CDE Dairy, the prospect on the flood plain was too daunting for our resources and, after consulting with CDE, we returned to consolidate on our second sweep.

However:

- We did help Ted Swann and his Newton Poppleford team on the Opening Day, having a significant impact on the Goosemoor wetland area (Photos 2 and 3 above).
- Also we liaised closely with Clinton Devon Estates, not only that opening day but throughout the season. Kate Ponting (CDE) has

moved quickly to increase their input next year having already organized a series of outings for CDE volunteers next summer.

There were some other useful achievements in 2015, notably in strengthening the ties with local residents in Colaton Raleigh:

- David Gibson continues to look after the stretch of the brook from the main road through the playing field downstream to Place Court.
- Two households above the main road (Mrs Scott Langley and Mrs Hitchings) continue to give us access to the brook through their gardens.
- The farmer's wife (apologies for being incognito) at Hardy's Farm has helped keep the stretch by the horse paddocks clear and
- Nick Higgins at Place Court is doing likewise.

Thanks are due to all of these folk.

I end with a photograph demonstrating the long reach of the OVA and the Otter Valley Himalayan Balsam Project. Chloe De Vries is a Bachelor's student of Environmental Studies at Wageningen University in the Netherlands. She came across and worked with us on our first two outings back in June 2015 and then retreated to the Netherlands, where she became acutely aware of the existence of "the pest." The photo shows Chloe illustrating her new OVA-induced environmental awareness. Well done Chloe!!



Photo 6 Chloe De Vries confronting Himalayan Balsam at home in the Netherlands!

Patrick Hamilton, Acting Chair, Natural Environment Committee, OVA