

## Annual Report; OVA Himalayan Balsam Project; 2016



### **The Target! Himalayan Balsam seedpods, days away from bursting; Kingston Farm “Hotspot”; 20<sup>th</sup> September 2016**

*This is almost at the end of the season for Himalayan Balsam but seeds continue germinating right through to October. At this stage the seed trusses need to be snipped off with secateurs into a plastic bag. Each pod may contain a dozen seeds. 12 pods on photo! They can be blasted up to 7 metres in any direction.*

### **Background**

In 2011 David Lindsay-Halls and I went up to Escot House and helped with their Himalayan Balsam (*henceforth “HB”*) team who had been working the largest Otter tributary, the Tale, since 2005. Mish Kennaway, their director, gave us some good advice. Three points in particular still resonate:

- Work on the assumption that water transports seeds downstream so start your clearance of Himalayan Balsam at the highest upstream point at which it is found, and work downstream.
- You will make a great deal of progress but year after year there will always be isolated plants or small clusters that need removing.

- Sometimes strange new outburst occur, perhaps as a result of a tractor or horses, birds, cattle or walkers' boots, bringing seeds in from outside.

In 2012 we commenced our campaign (on the advice of Clinton Devon Estate) on the badly infested Stowford Woods on the Colaton Raleigh brook with the aim of reducing the level of infestation to one in which a small group could keep the scattered plants under control with annual outings. This has almost been achieved. In the early years there had been so much HB in the upper reaches that we had been unable to execute a complete longitudinal transect down to the flood plain. We almost made it in 2013 but in 2014 we did it twice and nearly succeeded in executing a third. Since then, in 2015 and 2016 the three sweeps have been comfortably achieved with the number of plants encountered steadily decreasing and the completely clear areas steadily increasing.

Having said this, Mish Kennaway's third comment cuts in: surprise new hotspots have continued to cause frustration. Three cropped up in late 2015 and one of these continues to be problematic. Worse, a completely new one emerged this year (in 2016) and looks set to trouble us for several years. These hotspots are away from the original target zone which is the stream banks and the immediately adjacent fields. One is on a footpath along the valleyside well above the brook (opposite Colaton Raleigh Church; Sketch Map 7 below); the second is in a farmyard and adjacent field again well above a tributary of the brook at Kingston (Sketch Map 4 below). More later.

### **Volunteers**

It goes without saying that all of the progress referred to above has depended on volunteers. Here the picture for 2016 is mixed. Quantity has been poor; quality excellent. As can be seen in Table 1 below, the number participating dropped to a record low: just 11. The good news is the excellent turn-out by this smaller group. Expressed in hours per volunteer it was the highest ever: 23.2, so that the total of hours input emerged as 255 which was above the 2013 input of 245 achieved with a larger volunteer force. What might have been achieved if we could have hit a total input of 375 hours is of course a major issue.

So why did numbers drop to such a low level? In each of my previous annual reports I have commented on the high turnover of volunteers. This year "anno domini" seems to have played a big role, at least 6 dropping out from last year's 19 because of aches and pains. Some may well return but clearly it is essential to boost the number of new volunteers. There were two this year and they did mightily well. We have two more for 2017 already but clearly another dozen would make a huge impact (see Conclusions below).

What is disappointing in this context is the poor response to efforts to boost the number of volunteers. Most of the trickle who reach us come from responses to the website or word of mouth. In 2013 the OVA made a big effort with the gazebo and display materials on the Otter Riverside Path but it

produced no more than a couple. This year, in 2016 Kate Ponting of Clinton Devon Estates/Pebblebed Heaths organized a display tent on Wednesday 17<sup>th</sup> August at Otterton Mill. The aim was to explain the Himalayan Balsam project and recruit volunteers. OVA volunteers helped staff the tent, discussing the project with interested visitors. Sadly, again, the results were disappointing. The problem remains.

Year	Total Participating Volunteers	Outings	Hours	Hours per Volunteer
2012	14	94	309	22.1
2013	16	95	245	15.3
2014	27	150	375	13.9
2015	19	111	301	15.8
2016	11	93	255	23.2

**Table 1 Participating Volunteers 2012-16**

Name	Outings	Hours	New Member
Mike French	16	44 $\frac{1}{4}$	
Gillian Hamilton	13	32 $\frac{1}{2}$	
Kevin Creton	9	25 $\frac{1}{2}$	
David Hatch	8	21 $\frac{1}{2}$	
Martin Wisdom	7	20	New
Jim Pithouse	4	12	New
Clare Meiklejohn	4	11 $\frac{1}{2}$	
Gillian Withycombe	4	10 $\frac{1}{2}$	
Mo Mills	1	3	
Andy Mills	1	3	

**Table 2 Volunteers: Individual Outings and Hours**

Table 2 above lists the individual inputs in 2016 (*Self excluded*). All are heroes and the OVA is extremely grateful to each and every one.

### **Progress in the Field 2016**

So three sweeps of the Colaton Brook have now become the norm. As can be seen from the Table 3 below, a regular pattern has set in. The first sweep takes up late June and July; the second August; and the third September and early October.

	2014	2015	2016
<b>First sweep start</b>	<b>13 Jun</b>	<b>19 Jun</b>	<b>22 Jun</b>
<b>First sweep finish</b>	<b>31 Jul</b>	<b>23 Jul</b>	<b>25 Jul</b>
<b>Second sweep start</b>	<b>7 Aug</b>	<b>23 Jul</b>	<b>28 Jul</b>
<b>Second sweep finish</b>	<b>31 Aug</b>	<b>20 Aug</b>	<b>29 Aug</b>
<b>Third sweep start</b>	<b>2 Sept</b>	<b>30 Aug</b>	<b>1 Sept</b>
<b>Third sweep finish</b>	<b>20 Oct</b>	<b>13 Oct</b>	<b>13 Oct</b>

**Table 3 Timing of Sweeps**

An important implication of these timings is that they constrain our ability to extend the target area to other tributary valleys. This will be picked up in the Conclusion.

#### *General Summary of Progress*

The analysis this year will be based on the same set of 7 sketches used in previous years. In the 2015 report I showed the situation at the beginning of the third sweep. The logic was that this was a measure of the scale of the remaining infestation late in the 2015 campaign. This did not prove practical this year (I was away in early in the third sweep which continued without me!) and so I have decided to map any incidence of infestation in 2016 regardless of timing.

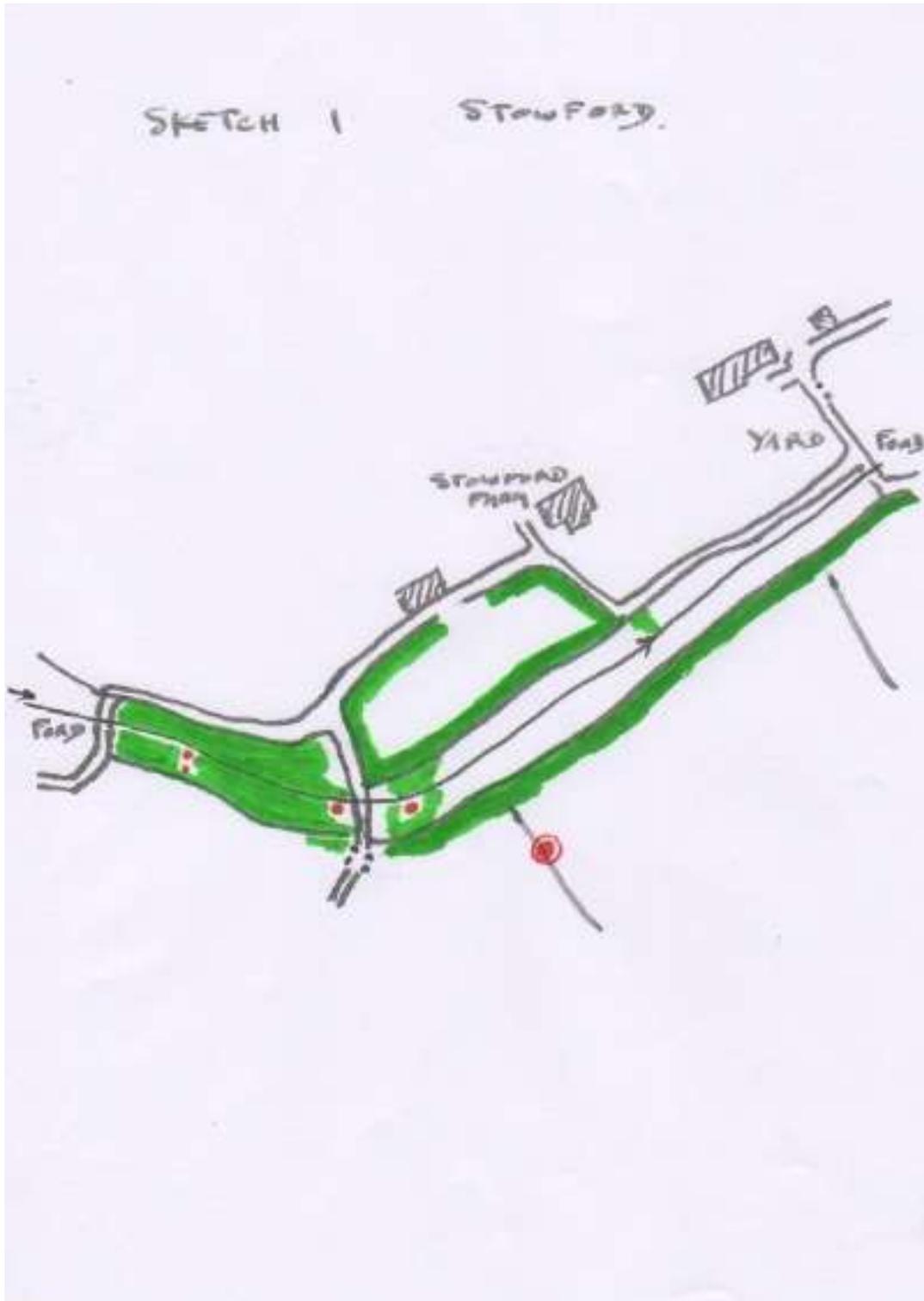
It is obvious that these sketches are rather crude but they are preferred to the OS map as a base because the scale of those maps does not allow the necessary detail. Even so, the representation is generalised.

I have used two colours on the maps:

- The **green** areas are those that are now clear but which were infested in 2012 at the start of the campaign.
- Red shows the incidence of HB in 2016 on any of the three sweeps. Three situations are distinguished by different symbols:
  - Where a large area has persistent fairly dense infestation it is shown by red line shading.

- A significant cluster with over c.10 plants is referred to as a “hotspot” in the text and is shown on the sketches by a red disc with a red circle round it.
- With 1-10 plants a small circular red symbol is used.

### Sketch 1 Stowford



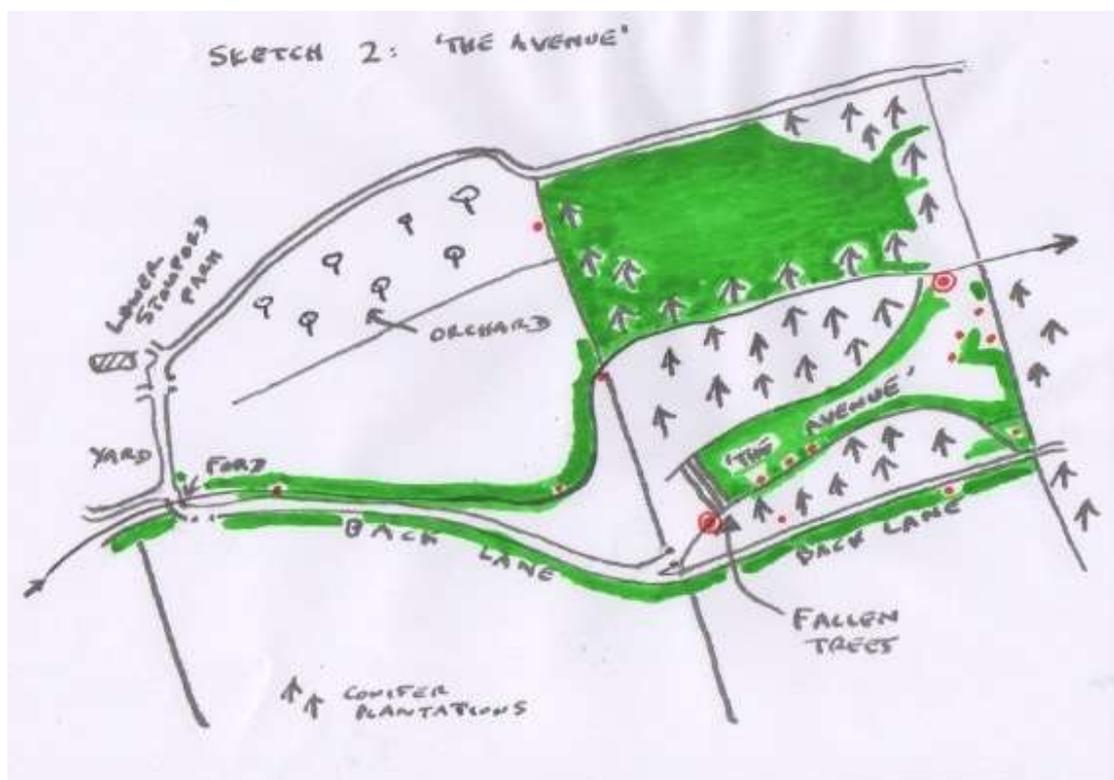
The situation in this stretch is good. It had been anticipated that the biggest problem would have been the big “hotspot” discovered late in 2015 in the maize field south-east of the river but this, to our relief, turned out not to be the case. One symbol represents this hotspot running across the field boundary. Yes, it was still there in the first and second sweeps but by the third the farmer had virtually destroyed the field boundary with machinery and the area was clear. It will be interesting to see in 2017 whether this is terminal.

Elsewhere on this sketch the situation is good. Yes there are red symbols indicating HB in the upstream block in the west, in two locations: in the west and the east. That in the east is accessed from the road by the bridge over the brook and involves climbing down to the brook under the trees. In the west access is by the field to the south. But numbers in both locations are very small: never more than 2-6 on each of the three sweeps.

There is also a persistent small patch by the stream just east of the above bridge but by the third sweep this had disappeared.

What is gratifying is the clear status of the field between Stowford Farm and the brook (centre of sketch). In earlier years there has always been HB on the field boundaries, especially by the brook in the south-west and the bend in the road at the north-east. This year there was nothing.

### Sketch 2 The Top End of Back Lane; “The Avenue” leading to Stowford Woods.



Again, overall, the situation is good.

Starting at the upstream end and the ford (left side of sketch) there persist just a few HB plants along the brook, which is quite deeply sunken in this stretch. Thereafter it swings away from Back Lane and crosses into a conifer plantation. For the first time the rectangular field (with conifers) on the left-bank of the brook (top right of the sketch) was completely clear in all three sweeps. This is the field in which we had launched our campaign in 2012 when it was very heavily infested, so this is particularly welcome.

On the other hand the open corridor through the plantations that we call “The Avenue” continues to keep us moderately busy despite being virtually clear in the first sweep in late June. Two mini-hotspots are located at opposite extremes:

- By the “Fallen Trees” at the south-western end a mini hotspot was discovered for the first time on the second sweep (in August). Clearance was satisfactory with just a couple of plants there in the third sweep in September.
- At the downstream end of The Avenue (top right-hand corner on map) the mini hotspot in the head-high grass on the bank of the brook has been with us from 2012.
- There persists a small sprinkling along the south-east side of The Avenue, though much less than in previous years.
- A sprinkling at the lower end (RHS of map) in the third sweep was relatively new. This was hidden in tall bracken for much of the year.

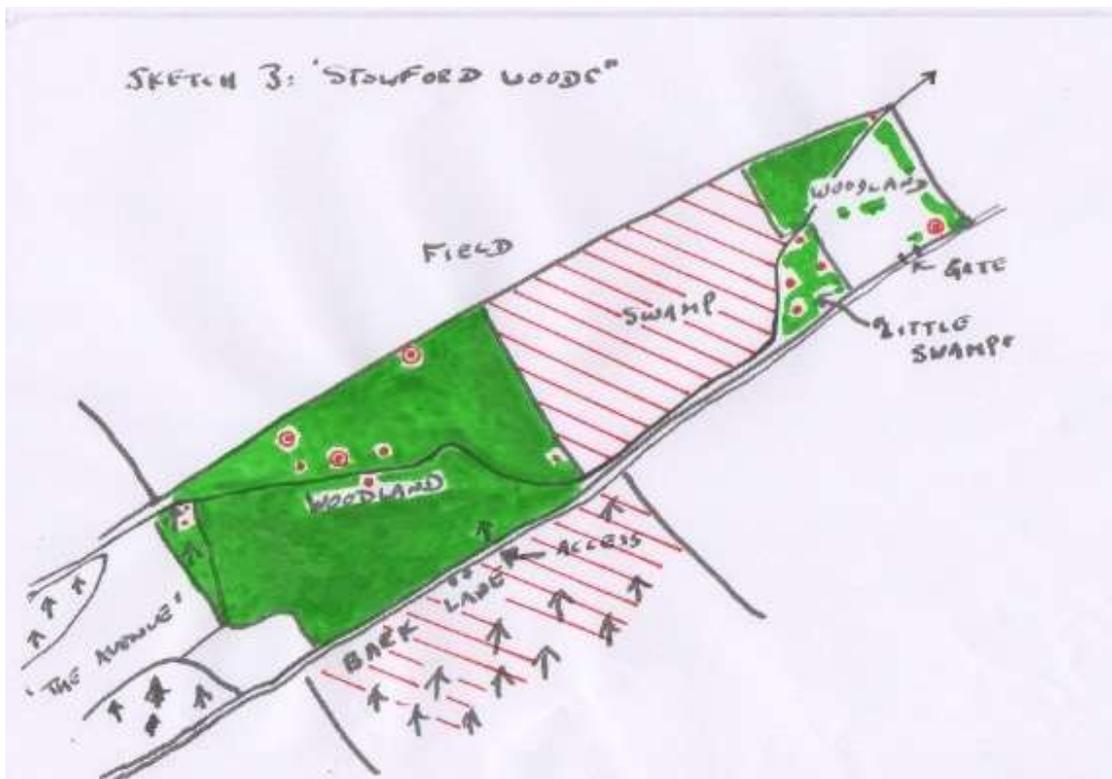
### **Sketch 3 Stowford Woods and the “Swamp,” Bottom Woodland and the Plantation above Back Lane**

This stretch of the Colaton Brook remains the most problematic.

- **“Stowford Woods”** The great positive achievement has been the degree of clearance achieved in Stowford Woods (left side of sketch) which was a sea of HB when we commenced the project in 2012 (see photo below). The right bank side is now virtually completely clear with just one location where HB was found in 2016. The left bank is also very good with extensive completely clear areas but with a line of three mini hotspots (perhaps a dozen plants in each) in the middle section.



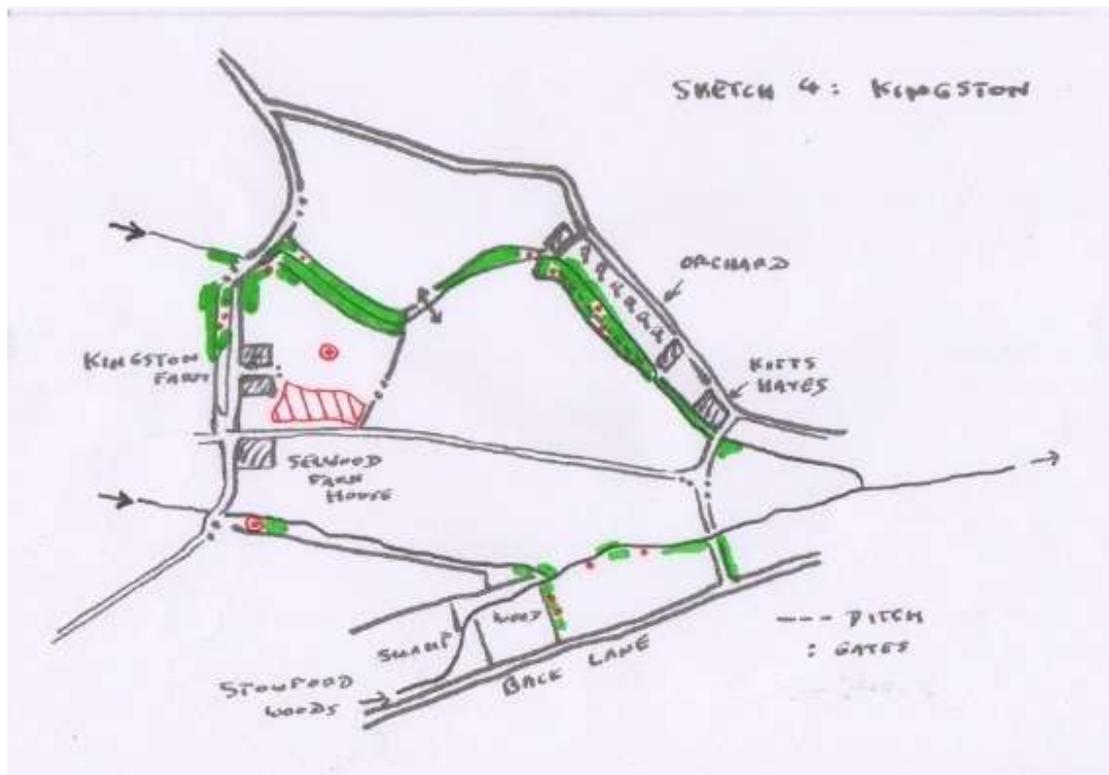
View downstream in the lower Stowford Woods on 4<sup>th</sup> July 2012, showing the limit of the cleared zone (foreground) on that date.



- **“The Swamp”** The swamp has always been the most difficult area as the height and density of the vegetation and boggy conditions underfoot make the clearing operation tedious; hence the red line shading. Nonetheless, there was general agreement among the team that the upper half during the third sweep was the clearest that we had ever seen, so there is hope!
- **“The Little Swamp”** lies below the Swamp on the right bank: a relatively small triangular area between Back Lane and the brook. It is awkward, with brambles increasingly prevalent and making for an uncomfortable clearing operation.
- **“The Bottom Woodland** This is accessed by the gate on Back Lane and is bisected by the brook. The Back Lane section has for several years been clear with the exception of a belt close to the gate. An earlier hotspot in the middle of the wood is no longer active. On the far side of the brook (from Back Lane) the situation is now good.
- **“The Plantation”** This lies along the upslope side of Back Lane (bottom of sketch). In earlier years it was not considered to be a part of “our patch” which focussed exclusively on the river banks and immediately adjacent fields. It has now become a serious problem with a high level of infestation and for the first time has been shaded red on Sketch 3. As in the Little Swamp, the presence of brambles is worsening and this makes even a reconnaissance time-consuming. From the gate a grassy track runs straight up the slope at right angles to Back Lane. To the right (bottom of sketch) the brambles have become almost impenetrable. They are less problematic to the left and this allowed discovery of many clumps of HB on all three sweeps. The use of a brush-cutter to ease access is a high priority for 2017.

#### **Sketch 4 Kingston, Kitts Hayes, Selwood House Farm**

This sketch shows the main brook (in the lower part of the sketch; the Swamp and Bottom Wood can be seen bottom left), together with its two small tributaries (see the two black arrows on left margin of the sketch). Until late in the first sweep (23<sup>rd</sup> July 2016) this was an area in which great progress had been made and control was good. The previous problem areas had been:



- **The Kingston tributary** which approaches to the north of Kingston Farm. It crosses under the road in a culvert and then, in a deep ditch swings to the right, then to the left to reach the linear orchard above Kitts Hayes house. Almost the whole length of this ditch has been reclaimed. There is still a small occurrence by the road (at the bottom of the Kingston Farm lawn) and then in another couple of locations in the ditch by the orchard. Both are small and clearance is almost complete.
- **The Selwood tributary** (below Selwood House Farm on the sketch), on which there is a single hotspot at its upper end shortly after it crosses under the road. This had been eliminated in 2015 (by the third sweep) but, to our astonishment, was back in full flower in the first sweep this year in 2016. It kept us quite busy on all three sweeps and gave the impression of expanding during the year. With luck, expansion has now been checked. Further down this tributary axis there has been no HB until it flows into the main Colaton Brook in the pasture below Bottom Wood. There are sometimes two or three very small clumps down by the brook in this bottom pasture as well as one, usually with half a dozen plants on the downstream boundary of Bottom Wood. Access to this block is often complicated by the presence of horses although Lady Trefussis gave permission to enter when in conversation early in the season.

Elsewhere:

- At Kingston Farm on the west side of the road there have usually been one or two on the face of the cliff that overhangs the road, as well as perhaps half a dozen in the strip of land above. They are close to being eliminated.
- In the middle of the sloping field east of Kingston Farm, there has been a significant hotspot for the last 2-3 years. It is well under control.

### **The New Kingston Farm Hotspot** (red line shading on Sketch Map 4 above)

The outing on 23<sup>rd</sup> July 2016 and, a month later, 27<sup>th</sup> August, changed everything. At the end of a session on 23<sup>rd</sup> July we found a couple of plants at the gate from the field into the Kingston Farm yard and then, to our horror, a mass of pink flowers on a rubbish dump on the other side of the track just outside the gate. Worse, there was infestation in the pasture above the dump. Sadly this was just the beginning. On 27<sup>th</sup> August, exploring a stack of bales at the top of the latter field, we discovered a small ocean of HB in full flower and beyond. Trusses of fat seed pods were everywhere and many had already burst and the seed scattered. It was a demoralising experience. Not only were they all round the huge bale stack on the side away from the farmhouse, but the HB had spread into adjacent hedge (or vice versa) right up to the top of the field.

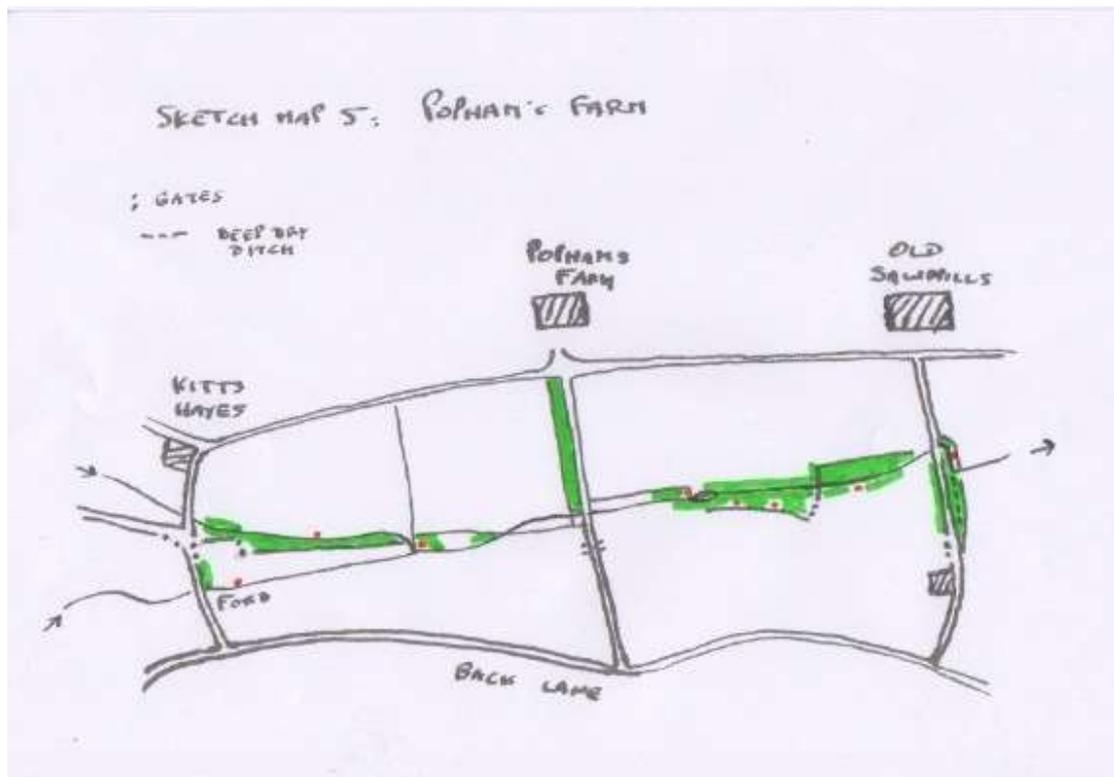
This new mega-hotspot was attacked in both the second and third sweeps to very good effect. But there is no doubt that the ground is well populated with HB seeds awaiting spring 2017 to burst into life. It is such a pity that we had not discovered this earlier (or been notified of it) because the seeds now in the seed bed will germinate at any time over the next two or even three years. It will need close monitoring.

### **Sketch 5. Kitts Hayes – Popham’s Farm - Saw Mills**

The stretch downstream from Kitts Hayes to the village (Sketches 5 and 6) is almost completely clear. It now takes minimal time to control requiring little more than a brisk walk by two people for 20 minutes.

Sketch 5 (below) shows that, downstream from Kitts Hayes house to the dog-leg road by the Old Sawmills, there are two large fields on the right bank (running across to Back Lane). In the upstream one of these there has always been a problematic “bramble haven” (ie a mass of brambles that protects Himalayan Balsam from being devoured by cattle). On the third sweep, for the first time in 5 years, the whole field was completely clear. Meanwhile in the field on the right in the sketch, stretches that had been quite

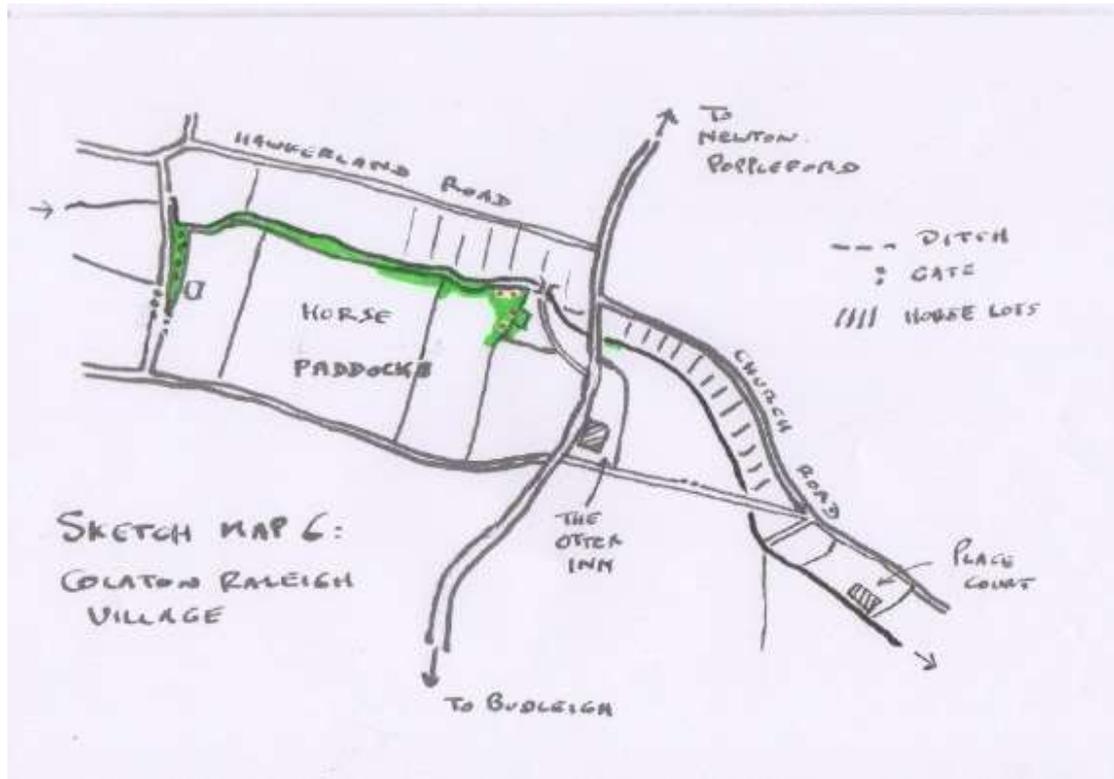
seriously infested along the banks of the brook are now almost clear with not more than 10 plants found on the third sweep. This is most encouraging.



The brook leaves the field (right-hand side of sketch) via a culvert under the dog-leg lane from the Old Sawmills, then executes a sharp right-hand turn in a deep ditch, then turns left through another culvert under the field boundary into the horse paddocks on Sketch 6. The short section along the lane has always been badly infested and so originally was its projection along the lane in a deep dry ditch. The latter is now completely clear and only 1 or 2 plants were found on the wet section on each sweep.

### **Sketch 6 The Horse Paddocks – Main Road (village) – Place Court**

(Arrow on left shows direction of flow of the brook; also bottom right)

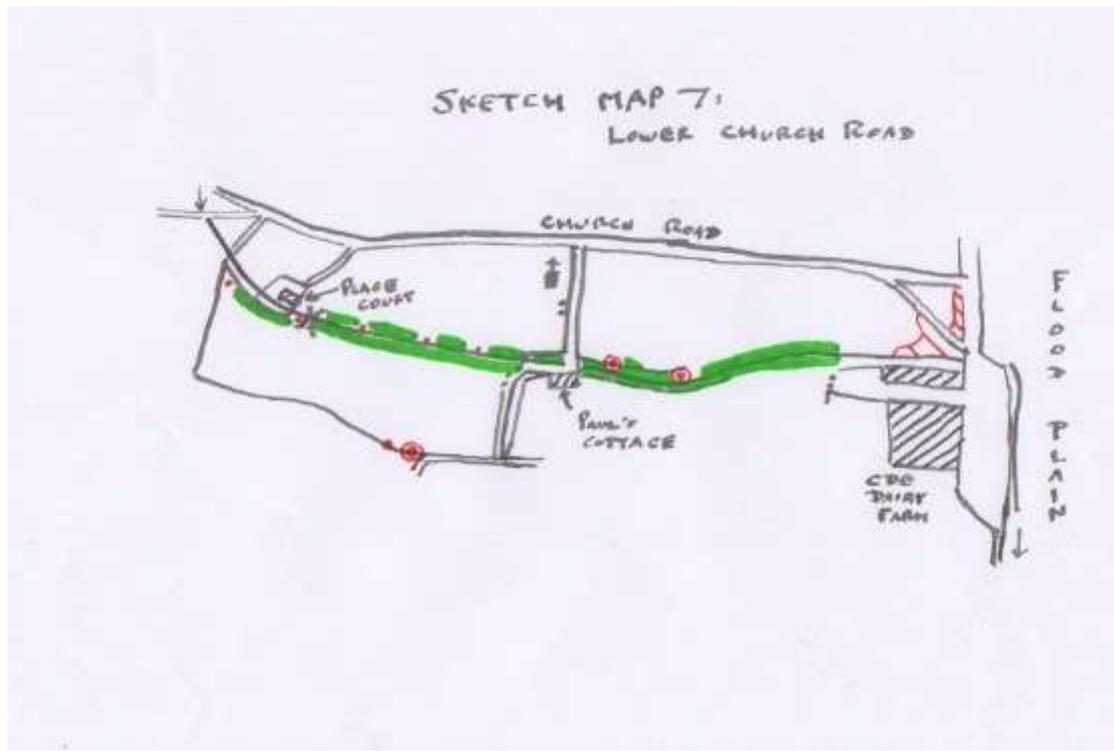


As with Sketch 5, clearance is almost complete. Only in the bottom paddock was a sprinkling of plants still found on any of the 3 sweeps (top right-hand corner of the lowest paddock fronting the brook). Below the main road the riverbank section between Church Road and the brook is cleared by local resident David Gibson.

### Sketch 7 Place Court – Otter Flood Plain

This is the bottom section of our Colaton Brook longitudinal transect from the edge of the commons down to the Otter flood plain. As can be seen, there is a fair amount of red on the sketch and this needs explanation. Three locations in particular are important:

- The shaded area at the right-hand (downstream) edge of the sketch indicates the extension of activities into an area never previously tackled i.e. down to the access lanes into the Clinton Devon Dairy. This is not therefore a negative.



(Arrows at top left and bottom right show direction of flow of the brook)

- The “hotspot” symbol near “Paul’s Cottage” (bottom centre-left of sketch) on the other hand is indeed a negative. This is the hotspot reported to us by walkers late in late 2015 (see 2015 Annual Report) and is one of those referred to at the outset that are well away from our usual “beat” along the brook. It is up the hill slope (towards the bottom of the sketch). In fact, the sketch is slightly misleading in not showing that there is a gap between the footpath and the field boundary on the uphill side of the large field that flanks the brook on its right bank. The gap consists of a steep bank dropping down from the path to the field boundary. Fortunately the HB is mixed with bracken rather than brambles so that it can be easily accessed. This hotspot has been much reduced as a result of the 2015 and 2016 sweeps and we hope that it will be eliminated in 2017.
- Also “negatives” are the two hotspots shown along the brook below Paul’s Cottage. The upstream one (on the left) is quite small and is located on the fence boundary of the field rather than in the stream. It is no particular problem but needs watching. The lower one is a warning. Access is usually by walking along the stream which below the first hotspot lies in a “tunnel” under trees. This section not only is a delightful walk but has always been completely clear of HB. Where it emerges into daylight downstream, on the other hand, the banks are steep on each side and the HB has always been bad. Possibly this stretch of 20 or 30 yards was missed on the first sweep because by the time of the second, plants, which clothed the bank and drooped into the water, were monstrously large and were covered in great

trusses of pods about to pop. Fortunately we were just in time and on the third sweep there was but a single plant to be pulled. Clearly, when volunteer groups split on a given day, it is so important to have an accurate reporting system of points visited and cleared.

For the rest of the zone shown on Sketch 7. Efforts over the five years since 2012 have resulted in most being clear and isolated red dots symbolize a very sparse scattering of a few plants.

## **Conclusions**

### *The Expansion to other Tributaries of the Otter*

Earlier (p4) it was suggested that the timing of sweeps had a great deal to do with the possibilities for expanding the OVA target area to include other tributaries. This is certainly something that we wish to do.

In the example noted above on Sketch Map 7 in which, on the second sweep, a Hotspot was discovered below the “tunnel” section of the brook below Paul’s Cottage, the dates are interesting:

**Saturday 25<sup>th</sup> June:** the first sweep took place when this section may have been missed.

**Thursday 18<sup>th</sup> August:** the second sweep discovered the hotspot ready to pop seed pods.

The implication is that if plants are missed on the first sweep, the second needs to begin before the middle of August to give a good chance of catching the HB before seeds pop. Table 3 shows that over the three years 2014-16 the first sweeps have ended between 23<sup>rd</sup> and 31<sup>st</sup> July. This suggests that there is a possible “window” of about 2 weeks at the beginning of August during which the second sweep might be delayed while new areas might be tackled.

Whether this indeed is the case depends upon the degree to which timings of plant growth are uniform throughout the length of the Colaton Brook. Practice has been to check this out by reconnaissance sorties during this period. In 2016 we did indeed conclude that we could go elsewhere on one Thursday, 11<sup>th</sup> August. A request for help had been received from John Gardiner who runs the Tipton St John volunteers. Their aim is to clear the west bank tributaries of the Otter lying south of the Tale valley down to “our bloc” of territory starting at Newton Poppleford. We spent a useful morning with them on the Fluxton brook. On the other hand, reconnaissance at the time indicated that we needed to be returning the Colaton Brook to commence the second, sweep so that only one “foreign excursion” was possible.

It may be concluded, I think, that although we will probably be able to make some advances outside our area in future years, more will depend on the numbers of volunteers than the timing of plant growth.

### Volunteers and Publicity

In the run-up to the new season (ie pre-June) a number of initiatives need to be taken to advertise the HB project and call for volunteers. Within the OVA the message can be broadcast through the Newsletter, the website and on the OVA Facebook facility. Then there is scope for coordination and cooperation, as in past years, with Clinton Devon Estate. On Thursday 19<sup>th</sup> January this year (2017) a review meeting of the 2016 season was held in the Clinton Devon Estates HQ building at Bicton and attended by representatives of several groups who are working on the HB problem. Publicity and the Volunteer problem were discussed and a coordinated approach will be planned in the coming weeks. This could well include a repeat of Kate Ponting's Otterton Mill exhibition but earlier in the season. The OVA gazebo could also be involved.

### Issues relating to field operations

Two in particular surfaced this year:

- The reporting of **rogue hotspots**. In the report of field progress (above) I pinpoint a number of occasions where new rogue outbreaks of Himalayan Balsam infestation had appeared out of the blue in areas adjacent to our core target zone along the brook. They raise the question of information flow. If they are not reported to us in some way then infestation will spread unchecked for months. The most obvious way of encouraging reporting is by seeking the help of those who frequent the fields and by-ways, most obviously:
  - Clinton Devon Farm staff
  - Walkers
  - Bird watchers and other naturalistsThese will be approached.
  
- **Brambles and access to Himalayan Balsam**. A great deal of time is spent each year with secateurs hacking pathways through areas badly infested with brambles as well as HB (such as the conifer plantation above Back Lane; and the Selway House Farm Hotspot; see above Sketches 3 and 4). Brush-cutters would save invaluable time. At the beginning of the forthcoming season an attempt will be made to resolve this problem.

Finally I think it fair to conclude that the year 2016 was a good one despite the emergence of those new hotspots. Thanks to the efforts of the band of trusty volunteers, the Colaton Brook target area was kept under control and the unfortunate appearance of new hotspots in adjacent areas must not detract from that. The team can be proud of their effectiveness and achievements.

Patrick Hamilton  
Acting Chairman, Natural Environment Committee, OVA