OVA Himalayan Balsam (HB) Project; Annual Report 2020

2020 of course has been the momentous year of the coronavirus. As I write in February 2021, we are in the middle of severe lockdown. Nonetheless, the Himalayan Balsam project survived it all. In fact, it may have been mildly therapeutic as it was excellent to get out into the fresh air, exercise and even, at a 2m distance, converse. Moreover from the project point of view it was a good year!

In 2019, I reported our big decision to "change the habits of a lifetime" and take on a new area after 7 years (from 2012) firmly rooted in the Colaton Raleigh tributary valley of the Otter. We took on the Dalditch brook that runs down from Squabmoor to Dalditch and thence, below the Dog & Donkey, as the Knowle Brook to Budleigh and the sea. So strictly speaking it is not a tributary of the Otter (although it would have been in the Quaternary period when sea level was much lower!). Nonetheless its valley is nested within the Otter Valley and its lands, heavily infested with Himalayan Balsam, are therefore adjacent to it and a threat. As reported last year (Annual Report 2019) the decision to take on the Dalditch valley was made in response to an invitation from Dr Sam Bridgewater (Clinton Devon Estates). This year, 2020, we extended downstream from Dalditch, past the Dog & Donkey and along the Knowle brook in response to an invitation from Kate Ponting (Clinton Devon Estates) who would also put her team into that section.

In taking last year's decision, I warned of the obvious danger: failing to keep on top of the monitoring and pulling still needed in Colaton Raleigh as we spent ever more time in our new terrain. We did not entirely avoid this danger, manifest above all, in the galling experience of arriving to find that some HB plants had already popped their seeds, but it was mercifully a rare experience. The same issue arose this year when we moved the centre of gravity down from Dalditch to Knowle. Could we do this without prejudice to Dalditch?! Again – not entirely.

In 2020 we did advanced in relation to another issue: that of devising a system for handling a valley in which there is relatively little HB remaining. For years the idea of individuals or small groups ultimately taking over responsibility for stretches of terrain has been considered. Could we, one day, end up with a team, ideally perhaps of local residents, for each tributary in the whole catchment? This year we actually experimented (successfully). Martin Wisdom and Chris Bird very bravely volunteered to take on the most difficult area in the Colaton Raleigh valley (Stowford Woods and Swamp) as their sole responsibility (Sketch Map 3 below). The rest of the valley, with the exception of the other "bad patch," the Dairy down by the floodplain, was dealt with outside the Thursday large group outings by ones, twos and threes, happy to walk and search. It was just as well because HB retained its most mischievous characteristic: to bounce back with completely new hotspots in places where it has never been seen before. Fortunately again, this was on a limited scale.

It has been an interesting and rewarding year. Last year (2019) was dominated by the "Mega Hotspot" in Dalditch Plantation: steeply sloping land, densely infested but not covering too large an area. We fixed it. This year we were challenged, along with Kate and her group, by the much more densely infested flat pastures along the Knowle brook below the Dog & Donkey. Even the combined efforts of the two groups could not complete a first sweep. It was a return to the early days in Colaton Raleigh in this sense.

Volunteers

As always, project success depends upon the efforts of our volunteers. The good news is that, despite the pandemic, numbers and the input of hours held up remarkably well as Table 1 below shows:

Year	Total Participating Volunteers	Outings	Hours approx.	Hours per Volunteer approx.
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
2017	25	149	384	15.4
2018	19	120	305½	16.1
2019	23	157	384*	16.7
2020	21	148	357	17.0

[•] included recces.

Both "Hours" and "Outings" are for the Thursday group mornings.

<u>Table 1 Participating Volunteers and inputs; 2012 – 2020</u>

Numbers dropped off slightly, 21 participating in 2020 compared with 23 the year before. In part this is because we had only 3 new volunteers compared with 2019 but the implication is that fewer old stalwarts dropped out. Good! Good also that the number of input-hours remained well above average: 357

compared with a 9 year average of 324 and the 4th highest over this period. This indicates a great team effort. Well done everyone!

Table 2 below shows individual inputs. As last year, "Recce/Pull" hours are again included and, as hoped last year, their number dropped dramatically as we got to know the Dalditch area: from 65 to 46. Once again, thanks go out to everyone on this list however small the contribution in hours. Some of us are much freer than others to find time to volunteer. Again, a striking feature is that the new volunteers immediately settled to well-above average inputs. All three are located in the upper half of the table. Thanks again.

	Thursday Outings	Main Outings Hours	Recce Hours	Total Hours	New
Patrick Hamilton	18	431/2	31	741/2	
Gillian Green	15	371/2	01	371/2	
Bob Murdoch	14	341/2		341/2	
Gill Hamilton	13	28	10½	38½	
Alan Weeks	10	261/2		261/2	New
Carole Hoopers	11	26		26	
Mike French	10	241/2		241/2	
Penny Weeks	9	24		24	New
Simon Hoopers	8	20	1	21	
Mike Rosser	6	17		17	New
Martin Wisdom	6	15	2	17	
Jean Turner	8	121/2		121/2	
Clare Meiklejohn	4	10		10	
Chris Bird	3	7	2	9	
Finnleigh Turner	4	7		7	
Kate Wilcox	2	5		5	
Esther Cochrane	2	41/2		41/2	
Geoff Porter	2	4		4	
Jim Pithouse	1	3		3	
David Rolls	1	3		3	
Ben Cochrane	1	1½		1½	
TOTAL 21					
Kate Ponting	1	1			
Total	148	357	46½	4031/2	3

Table 2 Volunteers: Estimate of Individual Outings and Hours 2020

Progress in the field 2020

The Timing of the Sweeps

	2016 CR	2018 CR	2019 CR	2019 D	2020 CR	2020 D
First						
Start	22/6	14/6	20/6	27/6	15/6	10/6
Finish	25/7	28/7	17/8	29/8	13/8	2/7
Second			-			
Start	28/7	9/8	5/9	19/9	14/7	2/7
Finish	29/8	29/8	14/9	28/9	5/11	4/8
Third						
Start	1/9	29/8	3/10	-	-	29/9
Finish	13/10	11/10	10/10	-	-	17/10
		-	-			

CR = Colaton Raleigh valley

D = Dalditch valley

Table 3 The Timing of the Sweeps (excluding Knowle)

In past years at Colaton Raleigh we found that we could do a sweep down the full length of the valley and its two tributaries right to the flood plain three times in a year:

- Sweep 1: late June and July
- Sweep 2: August
- Sweep 3: September and early October.

The worry was that taking on another valley would upset this system. To some extent it has.

In the above table I have included two years in the table to illustrate the typical pattern in early years: 2016 and 2018. For the two most recent years, 2019 and 2020, there are separate columns for Colaton Raleigh (CR) and Dalditch (D). Knowle has been excluded from the table for the simple reason that no sweep was concluded. The first sweep began on Thursday 30^{th} July and continued unfinished until the 22^{nd} October.

The numbers on Table 3 may be confusing but some simple points stand out:

- In **Colaton Raleigh** in 2019 all sweeps were late, with the second sweep entirely in September and the third entirely in October (instead of August and September respectively). This year (2020) there was no third sweep. We got so far behind as a result of the Knowle infestation that the second sweep was not completed until November 5th (our latest outing ever). The price paid was smaller than might have been expected. Seed-popping was nevertheless encountered:
 - At the dairy on Sunday 23rd August
 - Above the Adventure Playground 31st August
 - In the plantation above Back Lane 8th September
 - In the brook below Paul's Cottage 12th and 13th September
 - Above the dairy Sunday 23rd September

Obviously these areas must be watched with special care in 2021.

- At **Dalditch** The "Mega Hotspot" in Dalditch Plantation proved nothing like as problematic as last year when the first sweep (above the Dog & Donkey) was not completed until the 29th August. This year (2020) it was all over by the 2nd July!! A second sweep was then completed in a month by 4th August. Maybe this led to a false sense of security because I allowed a long, long gap before starting the third sweep almost at the end of September (29th) while we concentrated on the mass infestation at Knowle. There was a price to pay with popping seeds encountered at:
 - Dalditch Big Field Bank on road 26 July.
 - In the Dalditch Plantation Mega Hotspot 29th September and 1st October.
 - In the woods backing the long boundary of the Big Field 17th October

At the last named, I made the comment "We should have been here a week ago."

A contributory factor in these unfortunate encounters with "popping HB" was the magnitude of the infestation at Knowle. It became obsessive! Faced with the option of walking a mile searching for HB and finding perhaps a dozen in an hour, or standing in a pasture confronted by a solid block of pink in which you can pull 100 plants in 5 minutes, most volunteers prefer the latter! You feel that you are doing more good! But ultimately of course the objective is to spend whole mornings finding not a single plant

To conclude, the overall balance between the two valley systems did not change greatly. In 2019 there were 17 Thursday outings, 11 of which were dedicated to Dalditch-Knowle and 6 to Colaton Raleigh. This year, 2020, the Colaton Raleigh received almost the exactly the same number of Thursday outings (5¾) while Dalditch-Knowle benefited from a little more than the previous year: 13¼ Thursday outings. (We managed two more outings at the end of the season). This pattern is spelled out in Table 4 below.

Thursday Group Outingss	Colaton Raleigh	Dalditch (D) + Knowle (K)
18 th June 2020		1 (D)
25 th June	1 Dairy	
2 nd July		1 (D)
9 th July		1 (D)
16 th July	1 Stwfd +ch	
23 rd July	1 Kgstn	
30 th July		1 (K)
6 th August	½ Plntn	½ (K)
13 th August	¼ Plntn	3/4 (K)
20th August		1 (K)
27th August		1 (K)
3 rd September		1 (K)
10th September		1 (K)
17th September	1 Stwfd	
24th September	1 CR ch	
1 October		1 (D)
8 th October		1 (K)
15 th October		1 (K)
22 nd October		1 (K)
Total	5¾	13¼

[&]quot;½ and ½" means that on that particular Thursday roughly half of the effort went to each valley

<u>Table 4 Thursday outings in the Colaton Raleigh and Dalditch/Knowle Valleys: 2020</u>

To conclude: in 2019 the biggest absorber of time was the "Mega Hotspot" in Dalditch Plantations. This year it was the pasture in Knowle. Next year it is hoped that the Knowle bloc will be brought under control and then there will be an interesting situation. Everywhere in these two valley systems, Himalayan Balsam will be located in small scatted clusters, if at all. Then it will be a case of the teams working in small groups with good reconnaissance work, as is the case in Colaton Raleigh now. Perhaps the model set by martin Wisdom and Chris Bird (taking responsibility for a persistent problem area), will need to be followed in Knowle?

Progress in the field 2020

Area Reports

The Colaton Raleigh Valley.

As in all previous annual reports, in order to assess progress made during the year, a set of sketch maps is used: seven for the Colaton Raleigh valley and two for Dalditch-Knowle. The essence of last year's new system is retained but with some modification. Thus the maps indicate whether or not each stretch of the valley needed:

- a full group Thursday outing of maybe a dozen volunteers: SOLID RED shading.
- a small group of say, 5: HORIZONTAL RED LINES
- just the attentions of 1-2 volunteers: GREEN SHADJING.

In addition, as last year, any new hotspots are shown by RED TRIANGLES.

With regard to the green category, an important modification has been made this year. In 2019 no indication was given as to the actual location of any Himalayan Balsam (HB) encountered in a green area. The green could therefore hide somewhat different situations:

- a zone where there had been HB in the past, there was now no HB at all. It was completely clear throughout the year.
- But it could also mean that, in such a zone, there were odd clumps that only needed 1-2 volunteers to keep on top of it.

This is quite an important distinction so, this year, RED DOTS are used to show the actual approximate locations of any HB encountered within a green area.

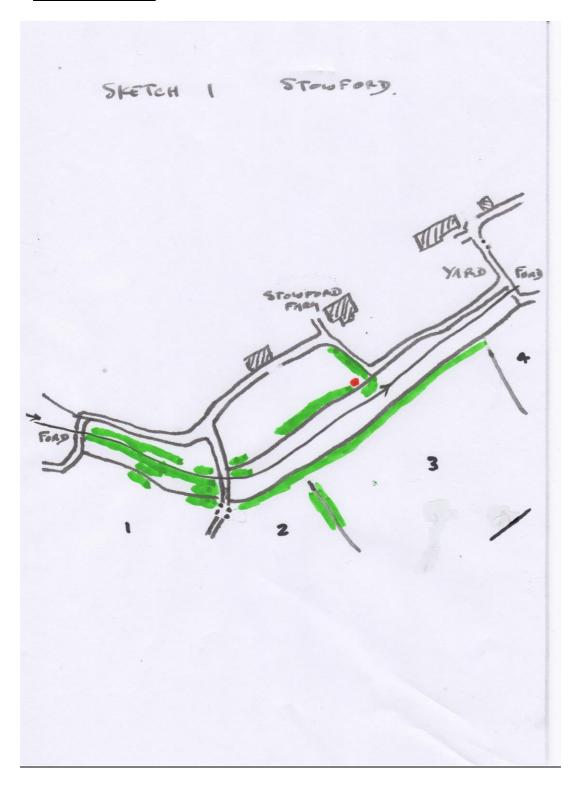
A further change from last year is that the zone for which Martin Wisdom and Chris Bird have taken over responsibility (The Swamp etc) is shown in red vertical line shading (see Sketch map 3 below).

In Colaton Raleigh overall it can be seen that the situation is hugely encouraging on Sketch Maps 1 and 4 representing the uppermost reaches of the main Colaton Brook (SM1) and ditto for its two tributaries (SM 4). In contrast, there is most work still to do on Sketch Map 3 (The Swamp, Stowford Woods and the Plantation) and on SM 7, the lowest reaches from Colaton Raleigh church down to the dairy.

As always, a brief commentary on the state of each of the 7 Colaton Raleigh areas and the three in Dalditch-Knowle is given. In all but the last, progress is indicated on a sketch map.

Colaton Raleigh

1 Stowford hamlet



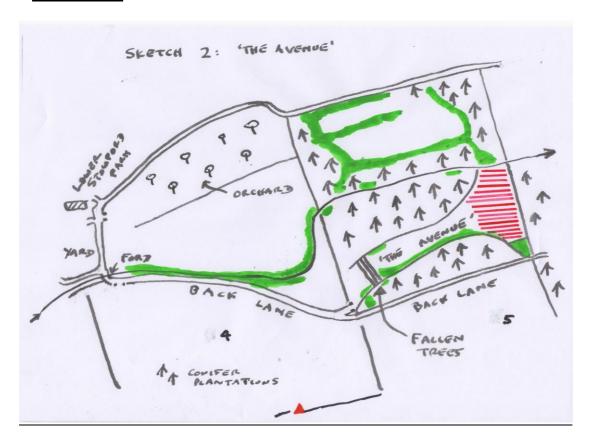
Sketch Map 1 Stowford;

Stowford Farm is GR 061871
Right-bank fields down to the Plantation above Back Lane have been numbered 1 to 5. See also maps 2 and 3.

Sketch Map1 then shows the uppermost limits of the Stowford brook to have been affected by Himalayan Balsam. Back in 2012 the highest point on the brook at which HB was found was at the ford on the left-hand edge of the map. Below that, as indicated by the green colouring, it was widely distributed on both banks and the field margins (mostly) backing those banks. Happily in 2020 the only occurrence was on the usual one: by the hedge in the left bank field between the road and the brook. Fields 1, 2 and 3, happily, were completely clear, for the first time in the case of Field 1 where there has also almost always been a few plants by the brook in the "top right corner".

This type of pattern is thus the target at which we are aiming: just one red spot indicating a handful of plants easily pulled by a single person, although of course all the green areas have to be patrolled.

2 The Avenue



Sketch Map 2 "The Avenue"
Lower Stowford Farm has GR 061872

Moving downstream (ie eastwards) from Stowford hamlet the situation gets more complicated as we approach the area that was profusely infested in 2012 and which has been a (thankfully diminishing) problem ever since: The Swamp and adjacent blocks on Sketch Map 3 below.

Our traditional access artery has been Back Lane, reached over the ford from Stowford Farm (left-hand side of the Sketch Map 2). On the south side of the lane Field 4 has almost always been completely clear (There should, however, be a

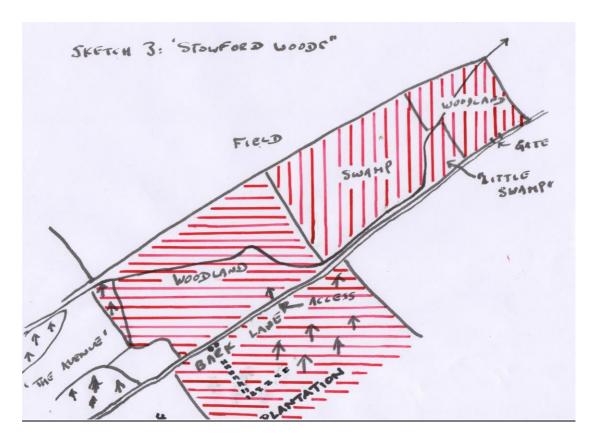
small patch of green on the northern boundary to indicate that there was once a plant or two in the early days). This year however a chance encounter with Mr Alan Carter, the farmer at Stowford Farm) on 4th August ended this period of innocence. While working the field a little earlier in the summer, he had encountered a substantial Himalayan Balsam hotspot on the upslope margin of the field (red triangle on Sketch Map 2). He had stopped the tractor and tackled it but recommended it to my attention immediately. I obliged. The remains of very large mature plants had been dumped at the edge of the field. Some also were still rooted and very much alive. Why had this hotspot developed here??? In all probability the seed had blown across from the adjacent conifer plantation (not labelled on Map 2 but the block in which "Fallen Trees" is inscribed) (See also Sketch Map 3 below where "Plantation" is spelled out). This year there has been much felling and opening up of the south-west half of this plantation and infestation seems to have spread accordingly despite strimming. What was so daunting about this hotspot in Field 4 is that no HB has ever been seen there before. Indeed I had never climbed up to this upslope field boundary before, relying on binoculars and eyesight to give warning. Obviously it is a salutary reminder. Keep eyes open and expect the unexpected!!

Returning to Sketch Map 2, it can be seen that the fields on the left bank of the Colaton Brook (ie on the upper half of the map), though often green (indicating infestation in years past) are without red spots. They were totally clear for the first time in 2020.

The right bank was, as always, another matter. As can be seen (SM2), a gate on the north side of Back Lane leads into "The Avenue" at the far eastern end of which is an area of red line shading: too much HB for one or two people. The open Avenue itself has been rather less open for the last couple of years with a serious infestation of brambles across what was, 5 years ago and easy walk in long grass with, in the early days, a lot of HB. Mercifully it is now clear of HB but the brambles slow down movement annoyingly. In contrast, the brambles have spared the eastern end of The Avenue but we have still been unable to conquer the Himalayan Balsam there. This is very largely because the block is infested with bracken that grows 8ft high all over this triangular block (the red shaded area) (you have to "swim" through it using breast stroke and it has claimed at least two pairs of spectacles over the years!). It provides the perfect cover for HB and we are only able to get on top of it late in the season when the bracken has died down.

3 The Stowford Swamp Area

At the eastern, downstream, end of The Avenue lies the block that was the worst infested part of the Colaton Raleigh valley in 2012. We have long called it Stowford Woods, The Swamp, The Little Swamp and the Bottom Wood (See Sketch map 3 below).



Sketch Map 3 Stowford Woods and The Swamp

The top (northern) corner of the rectangle is at GR 067876. Note that the woodland of Stowford Woods (centre-left) is not indicated (green) on the 1/25,000 OS map

Compared with last year the shading pattern, as noted earlier, is different: red line shading has replaced continuous red. The latter last year indicated that there still remained so much HB that the full Thursday morning group was needed. This year the switch to linear shading suggests an improvement but note:

• The vertical shading denotes the area taken over by Martin Wisdom and Chris Bird. In fact their 3 reports on their 3 sweeps indicated relatively little change from 2019. The good news is that the upper drier part of the Swamp is good. The lower, downstream part remains problematic with mud causing movement problems and, as ever, HB relishing these damp conditions to produce some monster specimens. It was ever thus, except that it is very important to stress that this is all at a very much lower level of infestation than in the early days. My 2012 Annual Report includes two photographs taken in the upper part of the Swamp on the occasion of its strimming by Clinton Devon. It took two men two days but sadly, a month after in late August there was a sea of pink in most parts. I attach below a photo giving depressing proof at the very top end. However there is no reason why the bottom end of the Swamp as well as the top cannot be controlled by traditional hand pulling, roots and all.



The SW margin of the swamp and the edge of Stowford Woods; 21st August 2012

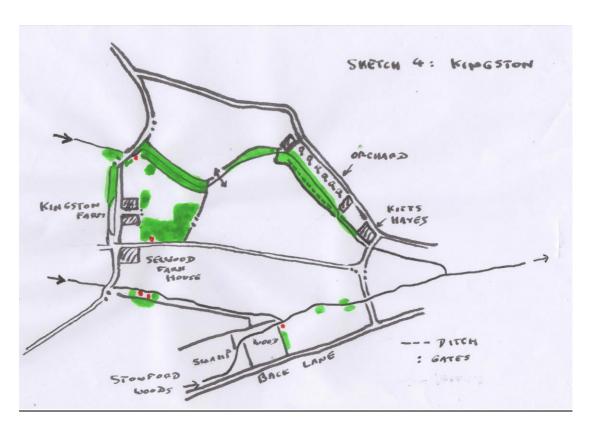
The photograph was thus taken almost a month after the strimming. It is now (2020) virtually clear in this zone.

Likewise The Little Swamp, as in 2019, continues to cause a minor problem. Here brambles again are an issue.

- The horizontal red shading on Sketch Map 3 implies that there is sufficient HB for a small group of perhaps 4-5. It includes Stowford Woods and, above Back Lane, the Plantation.
 - Stowford Woods This rectangular block always needs careful monitoring. It was the core infestation- area in 2012, at that time a sea of HB over head-high throughout its length and breadth. A first sweep this year produced the usual sprinkling but with large areas clear. Later in July a sprinkling was found and, disconcertingly a couple of hotspots down near the margin with the top end of the Swamp. One of them, over by the field boundary, was a long-established one but the second with perhaps just 15 or so plants, had the effrontery to be located at the heart of our traditional coffee stop glade! Again it was conveying a message: "Take nothing for granted!"
 - The Plantation. Back Lane on this section is perched above Stowford Woods. Above the lane running upslope, lies "the

Plantation." In earlier years we assumed that it was the responsibility of Clinton Devon Estates (CDE), given that it is a managed plantation unlike Stowford Woods which are wild. In recent years we have intruded and located a few significant patches that needed attention. This year, 2020, CDE felled the south-western half of the plantation and, as noted above, it seems to have been accompanied by a small burst in HB activity, so much so that CDE strimmed the fresh HB. Nonetheless it has continued to be active and our small group were active in both the new and old sectors twice in early August. Even this was not enough as Gillian Green, on a casual walk a month later in early September, was horrified to find a sea of pink in the strimmed area on both sides of the path up from the gate. She took action and seems to have been very effective as I found just one HB on a final solo recce in mid-October.

Clearly both of these areas need careful monitoring in the coming years.



<u>Sketch Map 4 Kingston and Kitt Hayes and the two tributaries.</u> Kitts Hayes house has GR 068878

4 Kingston

In 2017 I was reporting rather apprehensively on this block. The area around the farmyards and a bale stack in the top field had burst into pink bloom. Mercifully the situation is now very good as indicated by the limited red ink (See Sketch Map 4 above).

The sketch shows the two tributaries of the Colaton Raleigh brook, both entering from the west (the left-hand side of the sketch). They are:

• The Kingston brook, which enters to the north of Kingston Farm and curves round to the orchard (see map) and Kitts Hayes house before joining the main river. In past years the bank and deep ditch between the orchard and the Kingston brook have been a great consumer of volunteer effort. It was seriously infested. Now there was nothing on either of the two sweeps on 23 July and 6th September.

Nor was the area around the farm a problem. The farm dump has been clear now for a couple of years but took a lot of time in 2017. Two small outbursts were the only issue: a new small hotspot in the top field above the farm and below the road on the first sweep. There was just one plant there on the second sweep and one, as always at the bottom of the farm garden lawn by the Kingston brook.

The Selwood brook lies just south of Selwood Farm House and flows roughly eastwards to join the main brook near the bottom end of Bottom Wood below The Swamp. There has only ever been one problem on this short length of water: the "Selwood Bramble Haven." Below is a photograph of volunteers seven years ago posed in front of said bramble haven (See my Annual Report 2014). The solid wall of brambles behind their shoulders has flashes of pink and there was then no alternative but to hack a path straight into the brambles and over a barbed wire fence therein before emerging into a delightful glade by the Selwood brook. In 2014 the brambles were heavily infested and the grassy glade also had a few. Mercifully there are now almost none in the high brambles: less than 10 cutting along the old path line on the first sweep on 23rd July. A few remain near the glade. But the surprise this year was an extension downstream on the grass under the trees. It almost counted as a new hotspot but it was really just an extension of an old one and only a single plant survived to the second sweep on 6th September.

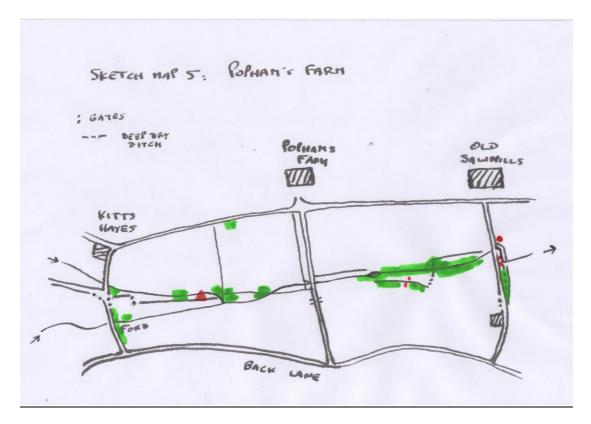


Ann-May Siddorn, David Lindsay-Halls, Gillian Green, Diane and Trevor Waddington in front of the wall of the "Selwood Bramble Haven";

First sweep 17th July 2014.

This location has grid reference: GR066876.

5 Popham's Farm Reach



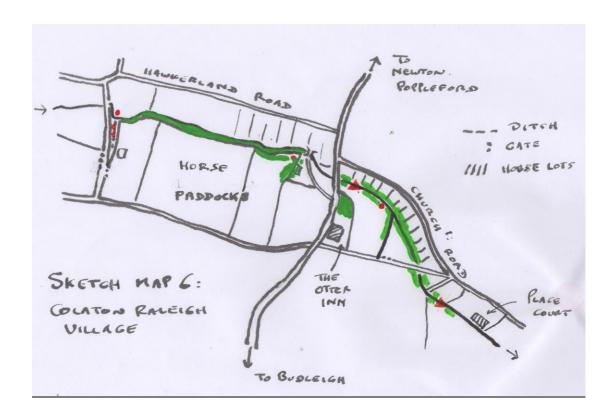
Sketch Map 5 Kitts Hayes to the Saw Mills.

Popham's Farm has GR 072878

This long stretch from Kitts Hayes House down to the dog-leg lane that runs south from the Sawmills remains very lightly infested. The report hardly differs from last year's. In the upper field (ie on the left) one new outbreak is shown as a red triangle but was of no great size and easily handled. It was something of a surprise because only one plant had been found upstream from this on the whole of the rest of the Kingston tributary (at the bottom of the garden of Kingston Farm (see Sketch Map 4).

In the lower field where this stretch of the Colaton Brook had been very badly infested in the early years, there just remained one small problematic site. As last year it was in a hedge behind barbed wire and this year it needed a tunnel, cut on one's knees, to get through from the stream bank. This was done in two outings on 29 and 31st July. It seemed to work because there was no HB there on the 2nd sweep on 5th November.

6 Colaton Raleigh Village



Sketch Map 6 Horse Paddocks and the Adventure Playground

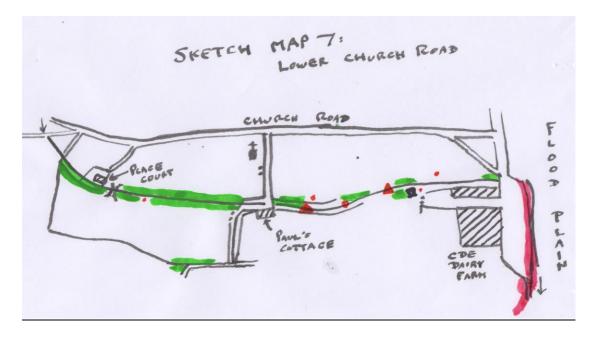
The Otter Inn (GR077874) on the main road is a local landmark.

This penultimate reach was slightly disappointing in that there is HB activity in four locations:

- The "bee-sting ditch." This is located on the dog-leg lane described above running south from the Old Sawmills (Left-hand side of this sketch). The ditch takes the brook from a culvert at the bottom end of the fields described on Sketch Map 5 above, and zig-zags into another whence it runs into the horse paddocks and on, under the main road, to follow Church Lane down to the flood plain. Half a dozen strong plants were found here on the first sweep (31st July) but nothing on November 5th. On the other hand the 2019 new Hotspot in the adjacent field by Hardy's farm showed no life.
- In the lowest horse paddock there was still a little activity (18 plants rather than 100+ as in some previous years) in the corner of the field, as shown.
- Below the road and running down below the Otter Inn to the adventure playground, a very small and long-established hotspot was missed on the far bank of the brook in the upper paddock close to the gate on the main road. Some had popped. This had not been apparent on a very early recce on 15th June and had been left until 31st August for a second sweep – far too long!

Finally there was a disappointing surge at an old hotspot on the stretch
of the brook running down to Place Court from the footpath below Otter
Inn. This also had been clear on 15th June but there were 18
substantial plants, again by 31st August. However they had not popped.
Nonetheless this experience highlights the importance of the timing of
the sweeps.

7 Place Court to Dairy; Lower Church Road



Sketch Map 7 Place Court to the Dairy Otterton Church (centre) is a noted landmark.

The upper section of this last reach before the floodplain remained hugely encouraging. Whereas last year (2019) there was not a single plant between Place Court and the church bridge, this year there was, sadly, one - on the first sweep (15 June) and two or three on the second, very late, sweep on 24th September. Added to that we found nothing above Paul's Cottage for the first time (See sketch Map above; the green patch with no red dot south-west of Paul's Cottage).

The section below that from Paul's cottage down to the dairy was another matter, as can be seen from the red on the map above. First, there were two new hotspots:

• In the "tunnel" below "Paul's Cottage" (see SMap 7). This refers to a delightful stretch of the brook where trees arch densely overhead to form a tunnel. It is beautiful and always beautifully free of Himalayan Balsam - until this year. Interestingly it is also the first year in which we have had trees down in the tunnel, completely blocking progress up- or downstream. Can it be that we have a similar relationship to felling in the

- plantation which seems to have opened up the ground to wind-borne seeds? Certainly the new hotspot was exactly where the trees were stretched across the brook.
- The second new hotspot lies well below the tunnel in a stretch where the brook has swung away to the north and is quite far from the tracks to the dairy. I had never checked this small stretch before (It is hidden by bushes) but the giants found there were truly impressive. On 13th September it took me an hour to trim 5 plants, the first taking fully half an hours (not unpleasant work sitting on the bank in autumn sunshine gently snipping trusses into a plastic bag! The pandemic seemed a long way away). One or two did pop so this location must be revisited in 2021.

There were other small clusters in this downstream section (see red dots on Sketch Map 7) and of course there is the stretch by the dairy. This remains solid red shading because the density there is still quite bad. It tends to worry us less perhaps because it is at the bottom of the chain. Any spraying of HB seed into the brook will not affect us!! This comment links perhaps to a conclusion concerning this lowest reach of the Colaton Brook. It always going to be the most vulnerable receiving seed from any location upstream if it should be deposited in the water. The lesson is that it needs especially careful monitoring in future years

2 Dalditch-Knowle

Last year our work in the Dalditch area was dominated by the "Dalditch Mega-Hotspot" (MHS) in Dalditch Plantation (See Annual Report 2019 p20 and Dalditch Sketch Map 2 below). This year was very different. Table 5 in last year's report showed the extent of this domination: from Thursday 11th July 2019, every Thursday morning group outing (except one) right up to Thursday 29th August, went to the "MHS." That is three Thursday mornings in July and 4 in August. And this was only to complete a single sweep!! It took 56 volunteer outings and absorbed 124½ man-hours of work.

This year's experience is summarised in Table 5 below. As can be seen, the 7 Thursdays of 2019 reduces to just 4; the Volunteer outings from 56 to 20; and the total man-hour input from $124\frac{1}{2}$ to 42 ie one third of last year's input. More startlingly the first sweep was finished on 9^{th} July instead of the end of August! This of course was hugely encouraging and left us with time to tackle the Knowle reaches from the end of July onwards.

Date	Volunteers (2019 total in brackets)	Total Time Spent Man-Hours (Estimate) (2019 total in brackets)
Wed 10 Jun recce	1	1½
Thurs 18 Jun	3½	9
Thurs 2 July	3½	8
Thurs 9 July	6	15
Sun 26 July	1	1
Thurs 1 Oct	5	7½
Total	20 (56)	42 (124½)

<u>Table 5 "Mega Hotspot;" volunteer work input for the first sweep</u> (including 2 recces)

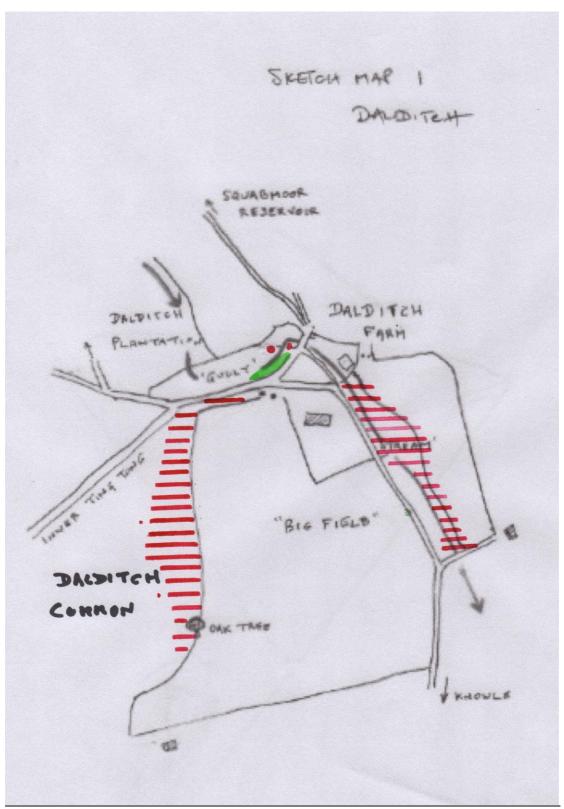
Each area within the Dalditch-Knowle block can now be briefly examined.

1 Dalditch Farm

Using the nomenclature in the 2019 Annual Report and on Dalditch Sketch Map 1 below:

• The Big Field remains active. On the short northern boundary a big, typically Devonian ditch and bank back onto the road just above the triangular "car park" area. It surprised us. On a second recce sweep on 26 July it was ablaze with pink and heavy trusses of seed. Some popped and this zone will have to watched carefully in 2021.

Last year the long western boundary consisting of a barbed wire fence backing the pleasant woodland (with tracks) of Dalditch Common. There remain a few small scattered clusters of HB. • The wooded Gully above the car park on its north side hosts the Dalditch brook before it cuts under the bridge at the car park. It produced one plant this year, hence the green shading: controllable by 1-2 persons.

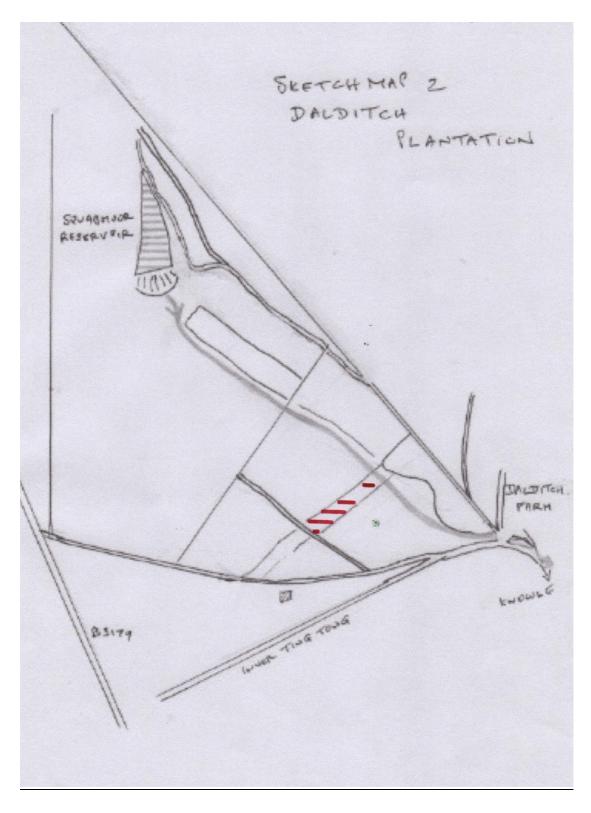


Dalditch Sketch Map 1 Dalditch FarmDalditch Farm has GR 047836

• The Stream and Dalditch Pasture downstream from the bridge, are best considered as a single unit. In 2019, our first year here, there was a large hedge along and above the north-east bank and a great deal of HB on the field side of this hedge. That has all gone, replaced by a new barbed wire fence. From the field you can now look down the bank into the brook and the opposite bank. HB is easily spotted and there is still a modest amount, though far less than last year. A complication in this zone remains the horses in the paddock on the SW bank and along the road. Walking up the stream from access entrance below (see Dalditch Sketch Map 1 above) seemed not to disturb.

2 Dalditch Plantation Mega Hotspot (MHS)

Not a great deal needs to be added to the comments made above in the introduction to the Dalditch-Knowle block. Carole Hoopers sadly encountered the indigenous tick population high up on the steep bank just below the main Dalditch Plantation track but, apart from that, it was a very positive and encouraging year. This applies not only to the main block, which stretches from the track down the steep bank onto the flat area below (See Dalditch Sketch Map2 below) but also to the isolated hotspot further across that flat area towards the brook. Both areas were of course still active but both at levels hugely reduced from last year.



<u>Dalditch Sketch Map 2: the "Mega Hotspot" in Dalditch Plantation.</u>
Dalditch Farm has GR 047836

3 Knowle

I have not included a map of this block but one will be needed next year when the whole area has been subjected to a first sweep. The following two paragraphs describe where it is and its character.

Halse Hill is a narrow lane that drops north from the B3178 into Little Knowle. At the bottom it crosses through the Knowle Brook in a ford (GR 056823) before rising gently to the cross roads with Knowle Road. Beyond it continues as Dark Lane. Upstream from the ford (ie westwards) there is a grassy paddock on the south bank; gardens of houses on Knowle Road on the north bank. This paddock became the prime target area in 2021. It was accessed for the most part from Halse Hill close to the ford. When one emerges from the belt of trees along that lane, the prospect is of a delightful flat pasture with scattered shrubs and bramble clumps - and with a colourful pink tinge. Working conditions compared with the Mega Hotspot in Dalditch Plantation, or The Swamp at Colaton Raleigh, are easy although a brushwood dump that might have been removed, provides an unwanted haven for HB.

The Himalayan Balsam (HB) in the paddock runs in a continuous swathe upstream from the Halse Hill ford. Close to the south bank of the brook it is often embedded in substantial bramble thickets. South of this the HB is in open rough grass in the central part of the paddock; and to the south of that, the HB is again in a band of bramble thickets forming a belt along the boundary with the woodland block that slopes up to the B3178.

Again it is helpful to indicate the scale of the effort put in here. It considerably exceeded that put in to the mega-hotspot in Dalditch Plantation in 2019 and even more so that in 2020. In the preceding section it was noted that the MHS soaked up only 42 man hours of effort this year compared with the massive (in our terms!) 124½ in 2019. The Halse Hill paddock, on the other hand, took 147½ man hours this year. The scale is apparent from the data in Table 6 below.

It is easy to describe progress. We commenced at the downstream Halse Hill end and worked upstream along the rectangle on a broad front, eventually reaching the point where the brook cuts across the paddock from the Woodland side on the south to the gardens of the Knowle Road houses to the north. This line of water became a targetas the summer advanced. Upstream from this boundary the HB continues as a solid block but although some incursions were made into it we did not make a major impact. Instead a second sweep was made over this lower section of the paddock. This was completed on the last Thursday outing on 22^{nd} October. At least that is thoroughly cleared and we can hope for quite light work on this section in future.

Date	Volunteers	Input Hours
Thursday 30 July	6	17 ½
Tuesday 4 Aug	2	3
Thursday 6 Aug	7	16
Thursday 13 Aug	7	24
Thursday 20 Aug	11	32
Thursday 27 Aug	11	241/2
Thursday 3 Sept	9	21½
Thursday 10 Sept	5	14½
Thursday 8 Oct	9	221/2
Thursday 15 Oct	9	221/2
Thursday 22 Oct	8	18½
Total	84	147½

Table 6 Knowle: Hours Input by Volunteers at Halse Hill Paddock

As can be seen this double sweep clearance of this lower section of the paddock pre-occupied us for 10 Thursday morning outings running continuously from late July (30^{th}) to mid-September (10^{th}) and then with another block of three in mid-October.

What was achieved?

At the outset it was noted that we became involved in this block at the invitation of Kate Ponting of Clinton Devon Estates. Her team had already commenced the work in mid-July. We built on their efforts and have made a useful impact. But there remains the block upstream to clear next year.

Conclusion

We are at an interesting stage and an obvious unknown is how long it will take us to bring the whole of the Knowle block up to the Dog & Donkey under control. Could it be that by the end of the 2021 season there will only be work for ones and twos or small groups in both river valleys, Colaton Raleigh and Dalditch-Knowle? What then? Take on a third? Certainly there will be organizational issues. In one sense it would be excellent if a stage could be reached where there was no location that needed a full group outing. It would be a sign of success in our battle against Himalayan Balsam. On the other hand most relish the battle against the "massed hordes" of HB plants. Perhaps even more important is the undoubted fact that the larger group outings are very sociable events and are

greatly enjoyed by the lucky participants whether whilst actually pulling the plants or during the coffee chats. It is one reason why volunteers volunteer! In this context, many thanks are due to Chris and Martin for taking on the Swamp area as a twosome. What **do** you talk about? I just presume that as actual or past captains of Golf at East Devon there is no end to common ground for conversation and that you may even be planning where to put the bunkers in the Swamp and Stowford Wood. We shall see

Finally some important "Thank you"s. First, above all, to all the volunteers, every one of you, who turned out and produced the impressive results described above. Next year we will need more so please pass the word around. Secondly thanks to Clinton Devon Estates not only for helping with routine clearance to fields in Colaton Raleigh but also for your annual gift to our OVA volunteers. Because of pandemic restrictions we could not all have a lunch together but vouchers for cream teas were a thoughtful substitute that was much appreciated. Thank you Kate and CDE! Finally, thank you again Kate for nominating me (and hence the OVA project) for one of Radio Exe's annual "Pride of Devon" awards. Bicton College annually sponsor the "Countryside Champion" and it is fitting that they should be so positive about the removal of Himalayan Balsam from our ecosystems.