

OVA Himalayan Balsam (HB) Project: Annual Report 2019





All three of the above photographs were taken on 13th June 2014 during our joint opening session with the Clinton Devon Estates' (CDE) team. They were taken in the pasture that lies between Colaton Raleigh church and the Colaton Raleigh Brook. That day there were 22 of us in the joint team (OVA – 13; CDE – 9). There was so much Himalayan Balsam (HB) on both banks of the brook that we had to work all morning and only just managed to clear it by 12.30. We were delighted with this result. This year, 2019, my season started on 15th June with a recce for the same annual opener. I chose to revisit Church Pasture and followed it from the downstream end by Paul's Cottage right up to Place Court and the top end of the pasture. (see Sketch Map 7 Below). I found not a single plant. Such is progress!

So: we have taken the plunge! Last year I reported that we were at a turning point (See Annual Report 2018) having progressed to a situation where, in most fields along the length of the Colaton Raleigh brook there was no longer sufficient HB to keep a dozen volunteers occupied for a morning: often fewer than half a dozen HB plants in any given bloc (field, woodland, swamp) and frequently none. This is a different world to 2012, our first year, when Stowford Woods and the Swamp took us all summer. It has taken a long time to get here. So what next? I concluded then that we needed to take on a second target area and hoped that Bicton College would agree to our tackling (with Clinton Devon Estates) the worrying increase on their land. I also warned that to take on a second valley might pose problems (See my Conclusion, 2018 Annual Report). Would we be able to cope?

Sadly, no progress was made with Bicton College. However, on 13th June 2019, right at the start of the season, I received an email from Dr Sam Bridgewater of Clinton Devon Estates asking if we might assist with the Dalditch (Knowle) valley below Squabmoor reservoir. It runs from there down through Knowle to Budleigh Salterton. I responded positively of course, especially having been impressed by our Chairman, Bob Wiltshire's, campaign there nearly a decade ago (with "Budleigh in Bloom") and we ended up taking on the whole valley.

Committing to a second valley is not a light undertaking. Traditionally we have our outings on Thursday mornings with occasional Saturdays depending on demand. Each outing requires a reconnaissance to determine what needs doing and who should go where. Up until now I have had to keep an eye on one valley. Now I would have to watch over two! The danger is that time might not allow and something will be missed. The 2019 experience was very good but this risk was not entirely averted. Three sections at Colaton Raleigh did not quite get a third sweep and there may be a price to pay. Moreover we could only manage two sweeps at Dalditch, which is to be expected given that we were starting from scratch with the situation there at its worst. When we started at Colaton Raleigh in 2012 we could only manage half a sweep in the first year!

But overall the year was good. The Colaton Raleigh valley put up a bit of a fight with a couple of new hotspots and others (eg the swamp) refusing to die. The Dalditch valley, certainly needed attention but we made a big impact.

Volunteers

This very satisfactory result was achieved in part by a welcome boost in volunteers. Eight new ones lifted our total from 19 to 23; not the most but well above average as can be seen in Table 1 below. Quite apart from the sheer pleasure that this gives in meeting new people, it is obviously good for the task in hand. My estimate of the number of man-hours put in, excluding "recces," equals the previous record of 384 in 2017 which is excellent.

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

Table 1 Participating Volunteers; 2012 - 2019

The importance of new volunteers is even clearer if we look at Table 2 below where they are indicated in the right-hand column. They represent over a third of the team and are scattered well up the table! The format of this table is different this year as I have included the number of reconnaissance hours (recces) for the first time. I do this not so much to emphasize my own input but to establish that this is an especially big one in the first year of expansion into a new target area ie Dalditch. Not only was this an unfamiliar area, so that a lot of walking was required to ascertain the limits of the infested areas, but a considerable amount of walking was still required in the Colaton Raleigh valley to plan outings. With any luck the reconnaissance hours for Dalditch will shrink from now on.

Name	Outings	Main Outings Hours	Recce Hours	Total Hours	New
Patrick Hamilton	13	30½	44½	75	
Jim Pithouse	15	38½		38½	
Mike French	13	33	1½	34½	
Bob Murdoch	13	32		32	
Gill Hamilton	8	18½	11¾	30¼	
Simon Hoopers	10**	27½	**	27½ **	New
Gillian Green	10	25½		25½	
Jane Connick	10	24½		24½	New
David Hatch	11	24½		24½	
Peter Connick	10	24½		24½	New
Esther Cochrane	5	17	3½	20½	New
Geoff Porter	8	19½		19½	
Kevin Creton	6	14½		14 ½	
Carole Hoopers	5	12½		12½	New
Jean Turner	5	10	2	12	
Alison Authers	4	10		10	New
Martin Wisdom	3	7½		7½	
Kate Wilcox	2	4½	2	6½	New
David Rolls (DWT)	1	2½		2½	
Ben Cochrane	1	2½		2½	New
Chris Bird	1	2½		2½	
Teresa Creton	1	2		2	
Clare Meiklejohn	1	2		2	
Total		157	65¼	384	8

Table 2 Volunteers: Estimate of Individual Outings and Hours

** Simon did an unquantified amount of recce/pulling solo in the Knowle village area.

As always, thanks are due to everyone on this list. Great effort everyone, including those near the bottom. Every little bit counts! And not to mention off-list "specials" like Rosemary Hatch, who baked a delicious cake each and every week throughout the season! Thank you yet again Rosemary!

Progress in the field 2019

The Timing of the Sweeps: Main Thursday Outings

	2016	2017	2018	2019	
				CR	D
1st sweep start	22 Jun	15 Jun	14 Jun	20/6	27/6
1st sweep finish	25 Jul	3 Aug*	28 July	17/8	29/8
2nd sweep start	28 Jul	20 July	9 Aug	5/9	19/9
2nd sweep finish	29 Aug	26 Aug	29 Aug	14/9	28/9
3rd sweep start	1 Sept	21 Sept	29 Aug	3/10	-
3rd sweep finish	13 Oct	12 Oct	11 Oct	10/10	-

Table 3 The Timing of the Sweeps

In the past 6 years or so, we have found from experience that we can do a transect down to the flood plain three times in a summer:

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

This means that any particular location will be left for about a month after it has been cleared. The implication is that, within these 4 weeks, any seedlings will not have had time to reach seed-popping stage. Plants that have been missed are another matter. Table 3 above shows what happens when you take on another valley: the final column of the table: 2019. As can be seen, it was a bit of a struggle. Focussing on Colaton Raleigh, we finished the first sweep not surprisingly, a couple of weeks late, on 17th August rather than late July. This of course is because we were spending a lot of time at Dalditch where we had started a first sweep on the 27th June. Then we were 4-6 weeks late starting the second sweep on the Colaton Brook: on the 5th September which is a full 77 days, 11 weeks, after the start of the first sweep. It was a surprise that plants (in the swamp) had not all popped their seeds. Certainly they were ready to go.

And so it went on so that, at the end we could not finish the third sweep in the Colaton Brook and could not even start a third sweep at Dalditch. However, we just about got away with it, by which I mean that there were very, very few examples of HB plants being allowed to pop. But of course there should be none. When a Himalayan Balsam plant pops its seeds, up to 800 new plants may result.

It is possible that the timetable will be easier next year. One huge hotspot held up the Dalditch campaign for weeks, as is explained below.

Table 4 below shows how time was allocated between the two valleys. It is for the main Thursday outings and excludes small recces/pulls that played an important role as will be explained below. On two occasions the Thursday team (11th July and 8 August) split between the two valleys (with serious implications for Rosemary's cake). Otherwise twice as many Thursdays were spent in the new target area of Dalditch: ten compared with five. When the Mega Hotspot (MHS) is controlled, in a couple of years' time, a balance between the two valleys will presumably be restored.

Thursdays	Colaton Raleigh	Dalditch
20th June	1	
27th June		1
4th July		1
11th July	½	½
18th July		1
25th July		1
1 August		1
8th August	1	
15th August		1
22nd August		1
29th August		1
5th September	1	
12th September	½	½
19th September		1
26th September		1
3rd October	1	
10th October	1	
Total	5 + ½ + ½	10 + ½ + ½

Table 4 Thursday outings in the Colaton Raleigh and Dalditch Valleys

Reconnaissance Outings (“recces”)

A feature of Table 2 above is the inclusion for the first time of “recce” hours. There is an interesting issue here. In the past I have not included them because it has almost always related simply to me checking out a work plan for the coming Thursday. The hours involved were much smaller. Now we are dealing with a new situation and I must refer back to my opening paragraph where I make the point that we have been so successful over the last decade that there is a “problem of a shortage of HB” in many fields in the Colaton Raleigh valley. There is not enough work to do! This means that when I am on my own doing a recce for the following Thursday, I will encounter fields where there is no HB at all or maybe half a dozen or so that I can easily pull them myself. I do! Of course if there are two of us, or three, then the ground can be covered that much more quickly. So this is what the new column on Table 2 is illustrating. It should really be headed “Recce/Clearing” because in addition to enabling planning for the next Thursday group outing, it actually involves clearing. Six of us have been involved and the column is showing the results. I have such a large amount because, in addition to the above, I have still to check out areas where there are too many for me, or a small group, to clear. In the Colaton Raleigh valley this applies to two areas above all: Stowford Swamp and the Dairy. When these two areas are finally tamed, Thursday outings will stop in Colaton Raleigh and the whole valley will feature in this (recce) column! Table 4 will then be entirely devoted to Dalditch and the Knowle valley!

Field Report: Progress on the Ground

The Colaton Raleigh Valley.

This year, given the new circumstances explained above, I am changing the approach to mapping Progress on the Ground. Always before I have presented a series of 7 sketch maps showing state of affairs encountered in the final (third) sweep. This year I present a different version of almost the same thing: fields classified according to the work needed to keep them under control. Thus:

GREEN: a field/wood where there has been HB at some stage during the last 9 years (from 2012) but which is now controllable by one person (including fields that are completely clear).

RED LINE SHADING: fields needing the attention of a small group (two or three persons).

FULL RED SHADING: areas where there remains so much HB that a Thursday Group outing is needed.

NEW HOTSPOTS are shown by a red triangle.

As usual the seven sketch maps run from upper Stowford to the flood plain. They are presented below.

New Hotspots

In previous years I have commented on the annoying habit of HB to take us by surprise. Suddenly a new “island” of plants, a “hotspot”, blossoms where nothing before has been observed. After a quiet year in this respect in 2018, three new ones emerged in 2019. Presumably it will ever be thus, which is why continual recce work will be needed for years to come. The three were:

- On Sunday 14th July (ie on the First Sweep) beneath a willow tree near the left side of the brook right down near the dairy (Sketch map 7 below; red triangle). There were an estimated 50-100 plants and it took Gill and me over an hour to clear it.
- On Thursday 12th September (on the Third Sweep) in and on the boundary of Bottom Wood. This is what we have come to call the woodland bloc below the Swamp. On Sketch Map 3 it is at the top north-eastern corner of the sketch map and the boundary in question is the north-western one. Geoff Porter, Mike French and I spotted it from the field to the north and it took perhaps 15 minutes to clear.
- On Sunday 15th September Gill and I cleared the new hotspot in the field which is a part of Hardy’s Farm (Sketch map 5). Normally they keep it clear of HB. The corner where the hotspot is located backs a deep ditch that carries the brook from and to culverts. We have come to call it “Bee-Sting Ditch” after Gill’s unfortunate experience some years ago. On Sketch map 5 it can be seen below the Old Sawmills running along the North-South dog-leg road. It took Gill and me just over an hour to clear it.

I mention the times “taken to clear” for a reason. None of these hotspots is a major problem. They took just 2, under 1 and 2 man-hours respectively to clear. What I am calling the “Mega Hotspot” (MHS) in Dalditch is of a different order of magnitude, taking us back to Stowford Woods in 2012. It took us 6½ sessions with the Thursday Group (see below). So our new hotspots, at one or two man-hours of work each, are relatively miniscule. But of course they have to be spotted – and pulled. Otherwise they expand exponentially behind our backs to “mega” status.

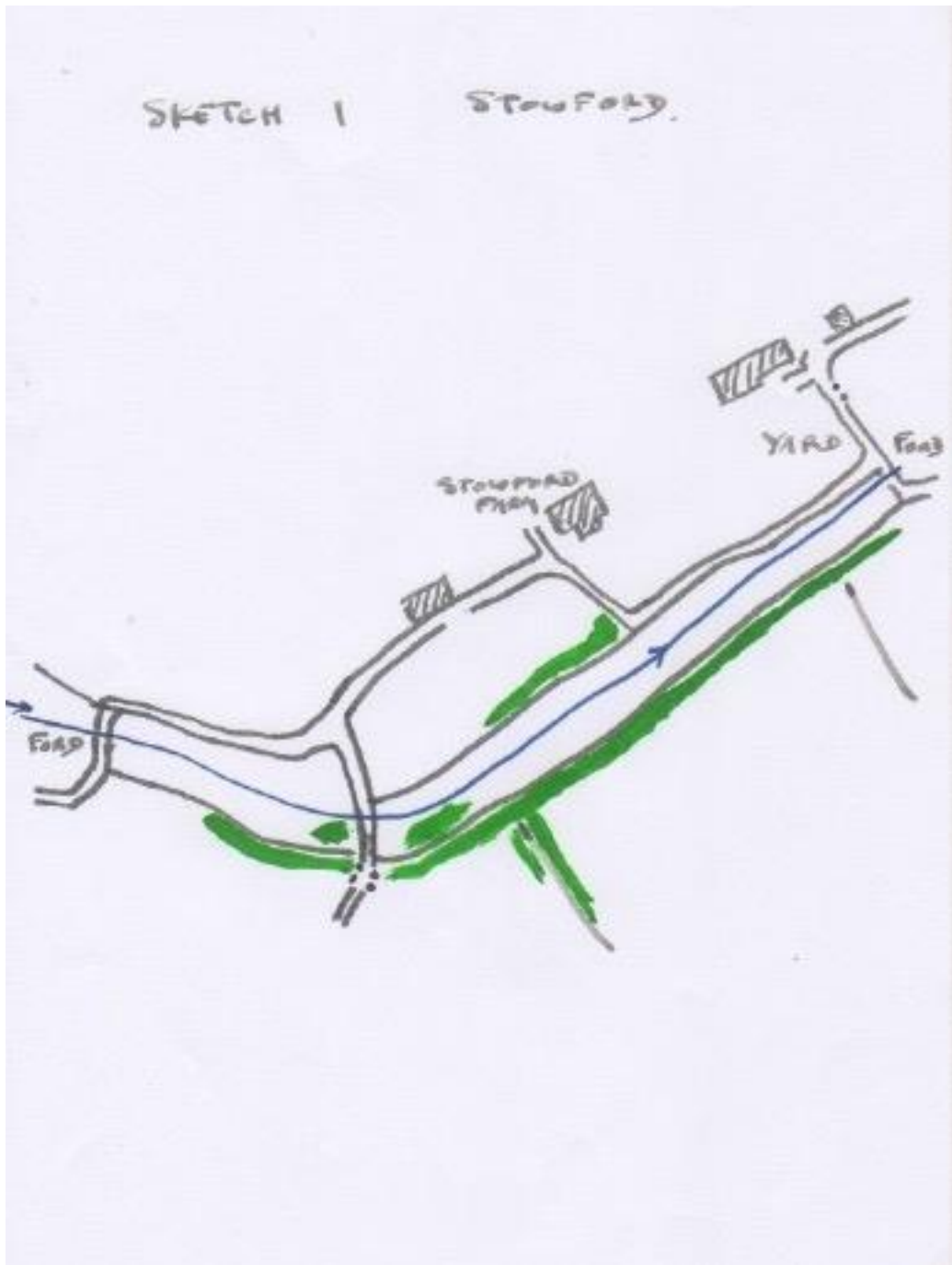
The “Normal” Progress

Working quickly through the maps, the key features in each area can be pinpointed.

A reminder: The green areas are those where HB has been located at some stage in the past but that colour now also indicates that one person could monitor and keep it under control.

In the upper catchment above and around Stowford (Sketch Map 1) the situation continues to be excellent and the comments are almost identical to last year’s.

Again, there are only two locations where plants were found: a few on each sweep in the one field on the left (north) bank; and on only one occasion just a couple of plants on the upstream side of the bridge over the brook.



Sketch Map 1 Stowford; Third Sweep
Stowford Farm is GR 061871



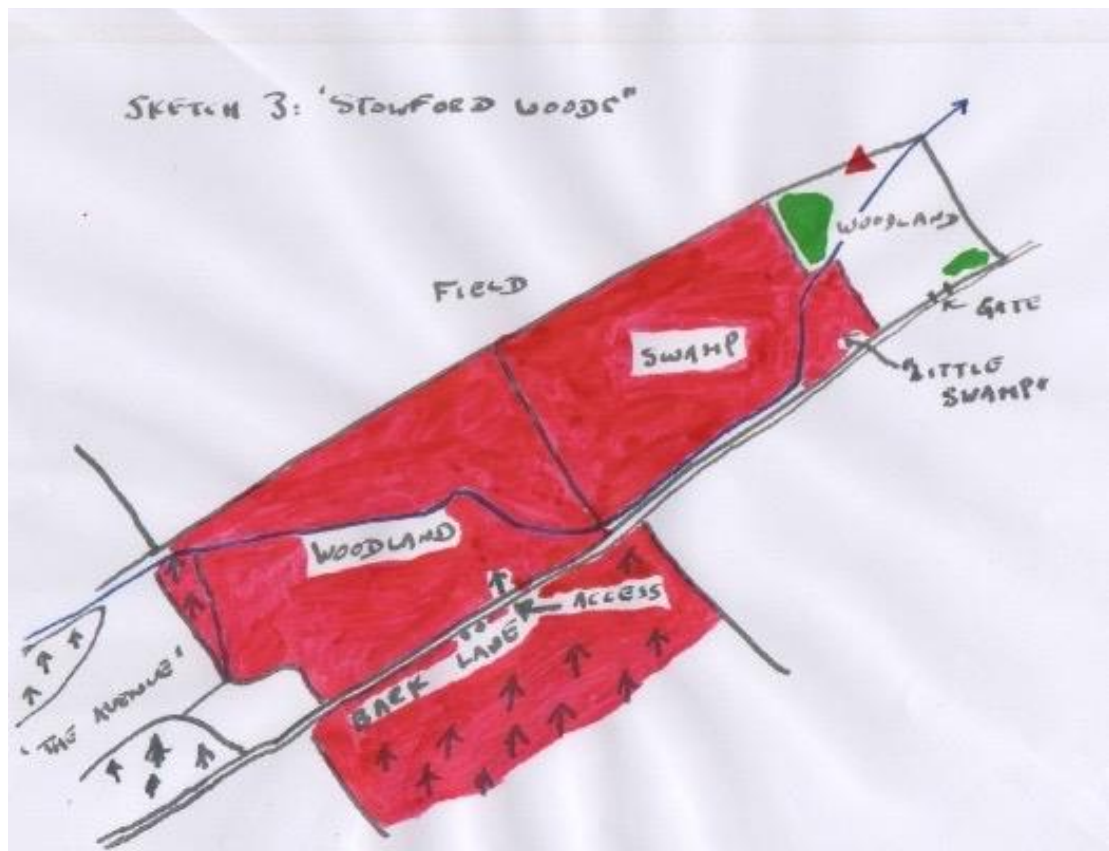
Sketch Map 2 “The Avenue”
Lower Stowford Farm has GR 061872

Again the situation has barely changed since last year. It is easily controllable by one person with the exception of the area noted last year at the eastern end of “The Avenue” (an open area under power cables with woods to north and to south.) As noted last year, the problematic HB is located in an area of dense bracken which grows head-high in the height of summer so that it is in commonly the case that in the autumn we get a nasty shock when it dies back. But it is work for a small group of two or three rather than the whole group, hence the red line shading.

Downstream from “The Avenue” lies the area that has always been a problem: Stowford Woods and The Swamp (Sketch Map 3 below). A reminder is needed: the continuous red colour does not mean that the areas so coloured are a continuous stand of Himalayan Balsam. It simply means that sufficient HB still remains for a full Thursday group outing to be required. In more detail the situation is not greatly different from that described in my report last year. Working from the top, upstream, end (South-West corner of the map);

- The small triangular woodland, just below “The Avenue”, still has a cluster near the river.
- Stowford Woods (“Woodland” on the sketch) has 3 small hotspots on the left bank and a couple on the right.

- The “Swamp” is relatively clear in the upstream half but still poses problems at the wetter bottom end.
- The “Little Swamp” still refuses to die and brambles continue to make pulling mildly problematic.
- The Bottom “Woodland” is under control with the exception of the new hotspot that appeared on the Third Sweep.
- The “Plantation” on the south-east side of Back Lane well away from the river, like the Little Swamp, is a difficult area with much time needed to cut access ways through widespread bramble patches. There continue to be several small hotspots of a dozen or so plants each (But see footnote below).



Sketch Map 3 Stowford Woods and The Swamp

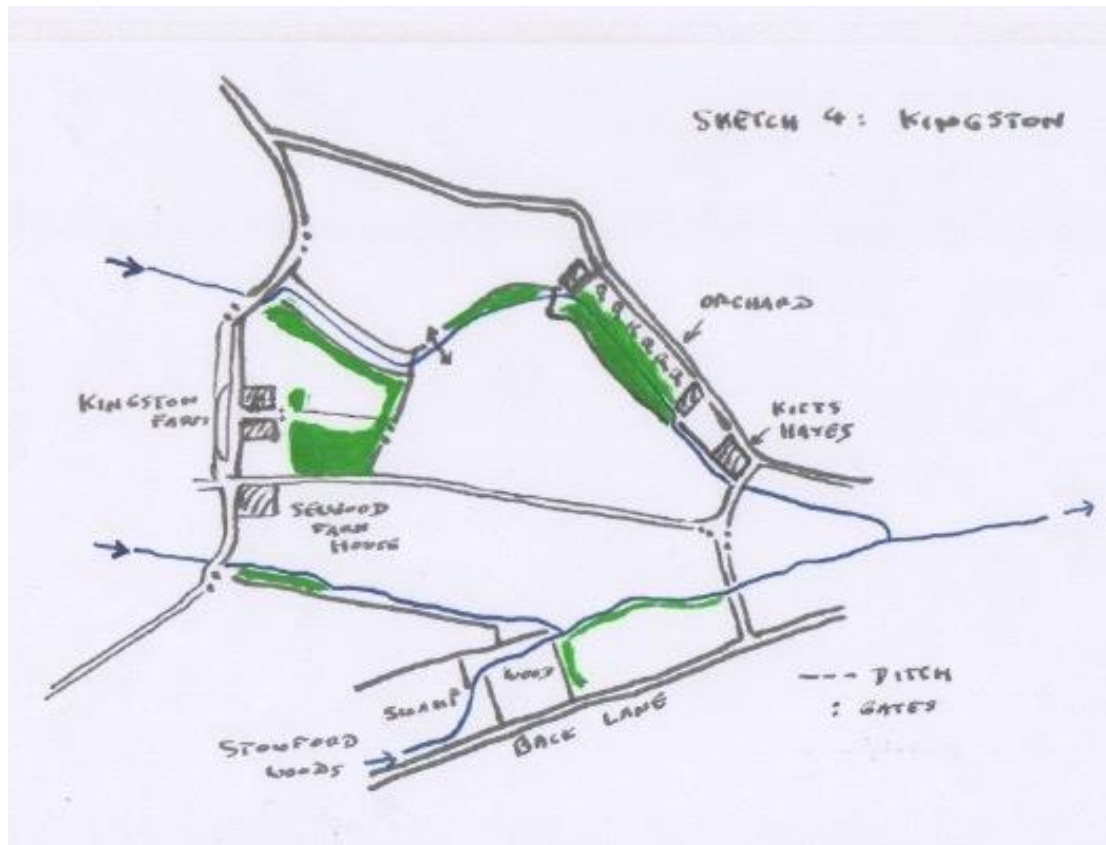
The top (northern) corner of the rectangle is at GR 067876.

Note that the woodland of Stowford Woods (centre-left) is not indicated (green) on the 1/25,000 OS map

***** April 18th 2020 Footnote. Prompted by Gillian Green, who had reported massive clearance of brambles in the above plantation, we visited today. Indeed so. The SW half of the Plantation has been completely cleared a not only of brambles but shrubs and trees, and replanted with an estimated 1500 new trees, protected in tubes. The NE half remains untouched. Access is forbidden at present. Meanwhile our Access point into Stowford Woods on***

the other side of Back Lane (Sketch Map 3 above), has been partly destroyed by fallen trees and subsequent work.

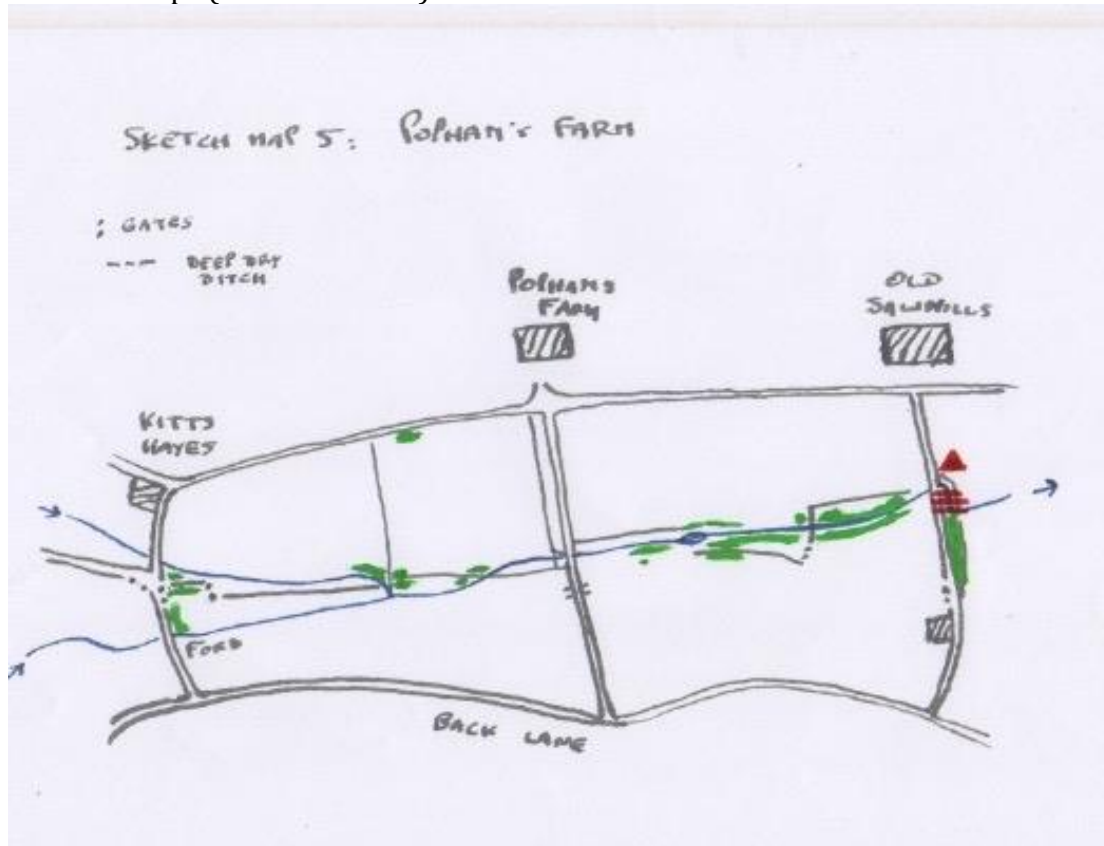
The Kingston area (Selwood Farm House, Kingston Farm and Kitts Hayes house; Sketch Map 4 below) continues the excellent progress made last year. Despite the Selwood Farm House “bramble haven” (the green patch south of that farm on the south side of the small tributary) all is green on the map. Like the “Plantation” described above for sketch 3, this bramble bank requires a track to be cut at the start of each season and there are usually a dozen or so HB plants en route and by the glade adjacent to the tributary brook. But for the rest, a few plants were found at the bottom of Kingston Farm lawn and just one by the brook over by the orchard in three sweeps!



Sketch Map 4 Kingston Farm and the Two Tributaries

Downstream from Kitts Hayes (Sketch Map 5 below) the two long stretches down to the dog-leg road from the Old Sawmills remain almost clear. There was perhaps one plant in the supper stretch all summer but in the lower stretch the awkward small cluster in a brambly bit of hedge remains on the south side of the brook just downstream from the blue “lake” which in fact is usually a muddy tract. On the other hand the deep ditch (Bee-sting Ditch) by the above dog-leg

road is still lively with the stream creating perfect conditions and it is overlooked by the new Hotspot described above. The ditch is therefore classed as needing a "Small Group" (2-3 volunteers).



Sketch Map 5 Kitts Hayes to the Saw Mills.

Popham's Farm has GR 072878

From the "Bee-sting ditch" the stream runs through a culvert and down past 4 Horse Paddocks to the village of Colaton Raleigh (Sketch Map 6). Access to all but the lowest is restricted but horse owners and left-bank residents do keep the banks clear. The bottom paddock was the location for a new hotspot (100+) in 2018 and a small number of plants were found on each of the three sweeps this year. All were located along the barbed wire fence by the brook and easily cleared.

Below the village (on the right-hand side of Map 6) one of the two fields north of the footpath running east from the Otter Inn still has HB life! The lower one is the adventure playground and is clear. But the upper one, along the river banks running up to the main road, is still active and is best handled by a small group so is shaded red (linear).

Carrying on down the footpath from the Otter Inn and cutting right into the field, there is still also an active area on the left bank. Usually there are only a couple of plants but they have always been monsters, even very early in the season, so

again a small group is required. Volunteers are becoming convinced that HB plants may overwinter, given the massive stems found in late June or July.



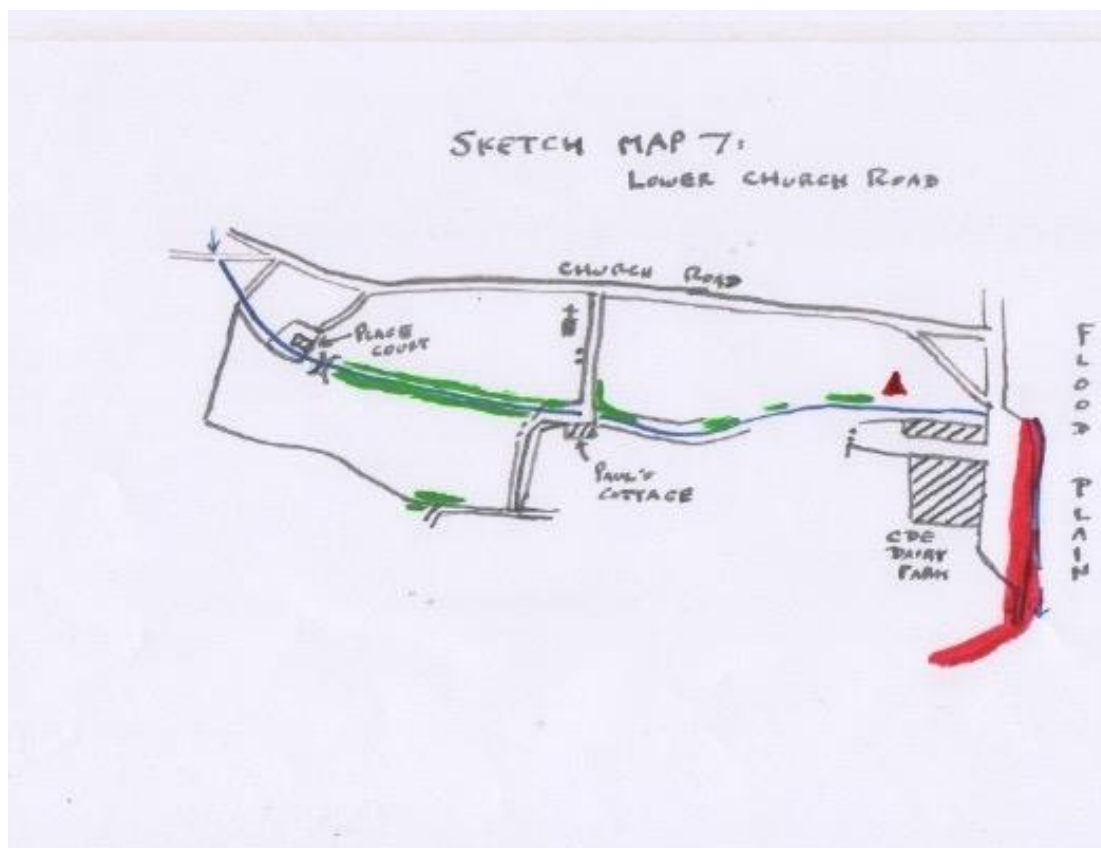
Sketch Map 6 Horse Paddocks and the Adventure Playground

The Otter Inn on the main road is a local landmark

Finally we come to Sketch map 7 (below) which runs from Place Court down to the Dairy and the Flood Plain. The upper section from Paul's Cottage upstream to Place Court, was commented upon in the opening paragraph of this report. Sadly a handful of plants were found in this section in later sweeps having been wholly clear in the first. It is also the case that a small problem area remains on the upslope southern boundary of the big field south of the brook. It continues to run up under the barbed wire and into a large patch of bracken below the footpath.

On the right hand side of Sketch Map 7, the brook below Paul's Cottage still has some life but is easily handled by one person. There is always a little at the upstream end and a little below the "tunnel" at the downstream end, though nothing compared with HB's glory years when large dumps of HB were produced in this stretch. Further down the new hotspot has already received comment.

Finally, in very bottom section of the map where the brook swings south past the dairy on the edge of the flood plain, there is still a lot of life in this recent addition to our transect, hence the red shading.



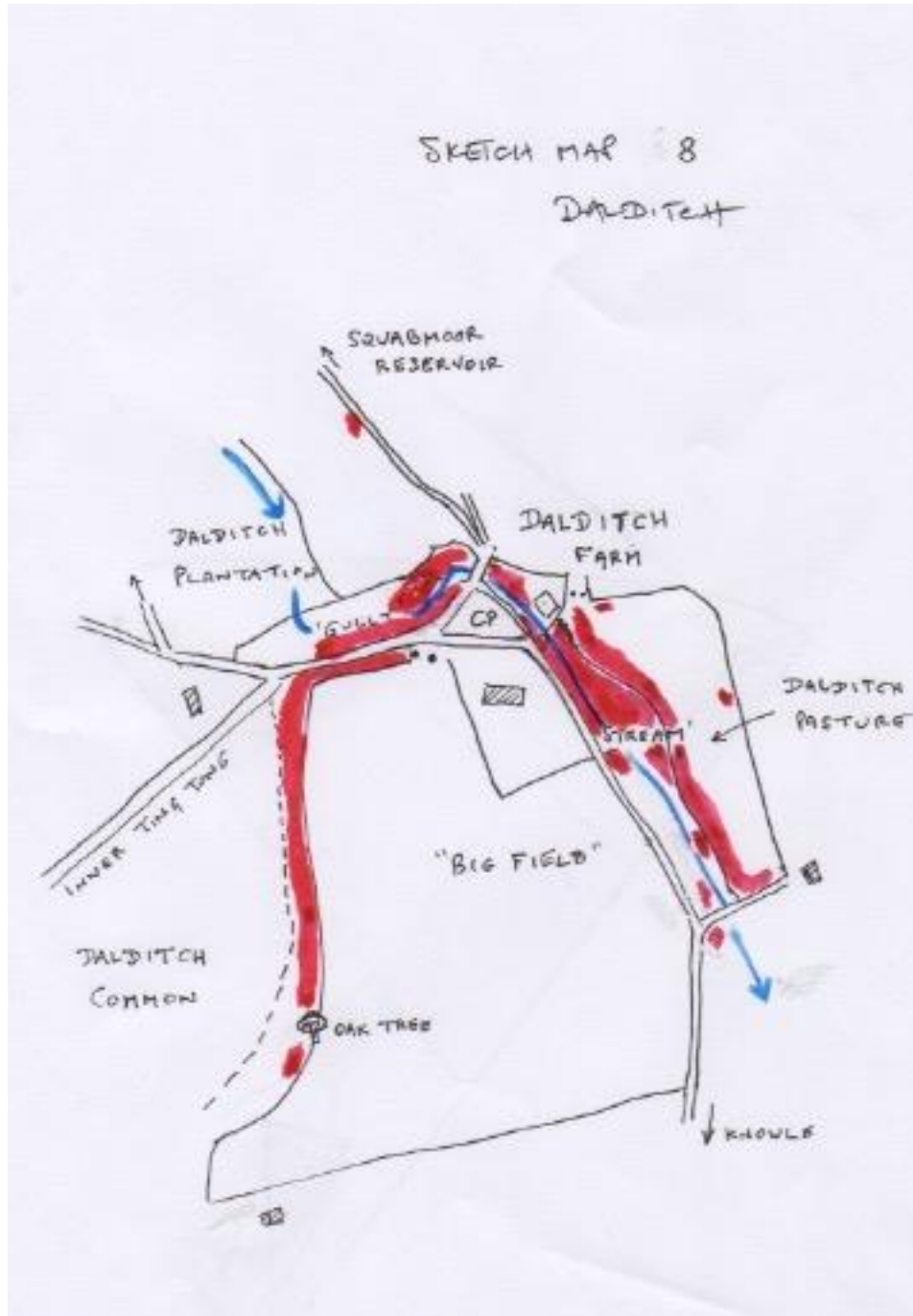
Sketch Map 7 Place Court to the Dairy
 Otterton Church (centre) is a noted landmark.

Conclusion Colaton Raleigh: The hope is that the Mega Hotspot in Dalditch will take less and less time so that we can ensure that the monitoring of the Colaton Raleigh brook can efficiently be done. Seeds must not be allowed to pop and careful recce work should ensure that this is avoided.

Dalditch and the Knowle Valley

Two sketch maps have been produced to cover most of the ground tackled in 2019 and are presented below (Sketch Maps 8 and 9). It is important to stress that they are just sketches and, more specifically that they differ greatly in scale. On the first (Dalditch Farm), the distance from the farm to the southern tip of "Big Field" is barely 1/3 km; whereas, on the second, the distance from the

Squabmoor Reservoir dam to Dalditch Farm is a full kilometre. This is worth stressing because the effect is to diminish the importance of the "Mega Hotspot" on Map 2 (with its outlier, the only red on the map). Both maps will now be commented on to establish the main features.



Sketch Map 8 Dalditch Farm
Dalditch Farm has GR 047836

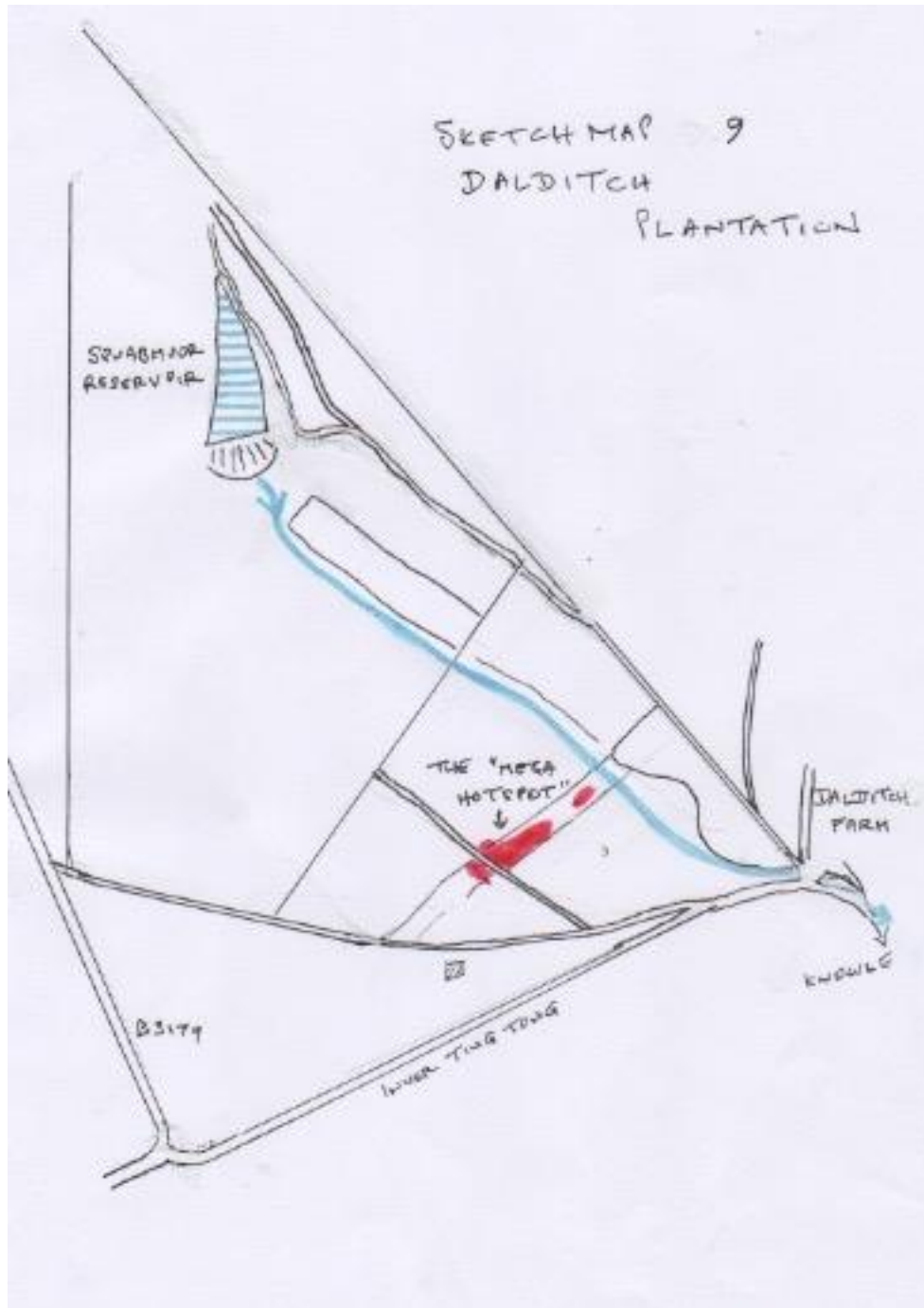
The Dalditch Farm complex of infested fields has attracted a nomenclature. They can be described in the order in which they were tackled. The triangular (grass) patch by the bridge over the brook and into Dalditch Farm can be called the “Car Park” (CP). It is where we assembled on every occasion that we worked in Dalditch throughout the summer.

- The “**Stream**” (below the bridge) is adjacent to the CP and the road and was tackled first. By the bridge it is deeply incised but downstream this becomes less pronounced. At the start of the summer campaign it was very badly infested especially on the left bank and also, at one location blocked by a solid mass of old brambles that needed a special visit to clear. It can be seen on the map (Sketch Map 8) that, lower down, the right bank is actually clear. This is a paddock for horses. Unfortunately there were a few small clumps of HB in this paddock and these can only be cleared when horses are away. This is an access issue which can be resolved with the farmer. Nonetheless, opportunistically, they were removed on the two sweeps.
- **Dalditch Pasture.** Working in the stream it rapidly became clear that there was a lot of HB in the adjacent field beyond the barbed wire boundary on the left or eastern bank. The field beyond is a pasture and a recce confirmed that the infested area runs along the edge of the field downstream with just a single plant on the upslope boundary of the pasture (to the east) and another by the gate into the field (in the north).
- “**The Gully.**” On the upstream side of the above bridge, the infested zone continues in a wooded enclosure which we can call “The Gully.” It is deep below the bridge but can be accessed quite easily from the road verge a few yards up from the triangular grass CP. The density of HB is not great.
- “**The Big Field**” (Sketch Map 8). The infestation of “The Big Field” soon became apparent as waving pink blossoms overlooked “the car park.” On the short northern boundary of this field a barbed wire fence is separated from the road by an ancient bank. This enclosed area is fairly badly infested. Then the barbed wire fence turns south to form the long western boundary of the field. To the west lies wooded Dalditch Common and an infested belt lies between the barbed wire fence and a footpath in the common (see Sketch Map 8). It runs as far as the large Oak Tree where the fence swings south-west and just beyond where it terminates against a mass of holly. Infestation is particularly bad in the centre and southern part of this belt.

In addition to the above, the group cleared the reaches of the stream that runs alongside the road (off the bottom of Sketch Map 8) under the rail viaduct down to the B3178 at The Dog and Donkey in the heart of Knowle village. Beyond that it continues right down to the centre of Budleigh. Entirely on his own initiative, one of our new volunteers, Simon Hoopers, has cleared most, if not all of the infestation. He is to be thanked hugely! Great effort.

***Corroboration and mapping was intended in autumn 2019 but I have been delayed in writing this report and we are all now locked down by Covid-19. Full details will be given in next year's report.*

From experience in the Colaton Raleigh valley it feels as though the infested zones described above will be brought under control in the not-too-distant future – perhaps 2-3 years. This cannot be said of the Mega Hotspot (Sketch Map 9) which reminds us more of Stowford Woods. We shall see!



Sketch Map 9 Dalditch Plantation

Dalditch Farm has GR 047836

The Mega-Hotspot

The work in Dalditch began with a couple of recce walks of the area between Dalditch Farm and Squabmoor Reservoir, the large tract which particularly interested Dr Sam Bridgewater. One ran clockwise from the “car park”, up the road before forking right along the track running north-west into the heart of Dalditch Plantation and on up to the reservoir. The return followed the stream on the right (western) bank, well down, before linking back to the track and the car park. The results seemed to be excellent: almost nothing. Just a few plants in a bush on the initial track into the plantation and a small hotspot quite close to the stream on the way back. We thought that perhaps we might polish them off on that recce. Little did we know! The first turned out to be the tip of “Mega Hotspot” and the latter the small outlier downslope towards the stream (Sketch Map 9 above).

The terrain is distinctive. The track running north-west into Dalditch Plantation is nearly level. The ground rises gently on the left but drops away very sharply on the right (north-eastwards) before flattening out and continuing gently down to the stream. It all lies in a largely unwooded corridor which is another “Avenue” (See Sketch Map 2 above). It is well seen on the satellite image (see “Google Maps”) running as a rectangle NE to SW almost from the stream in the NE, up to the track and then on to the road in the SW. It is flanked on both sides by commercial woodland: “Dalditch Plantation.”

As noted above, the Mega Hotspot was discovered by the track on that first recce (on July 1st). It was in a complex of small tree/large bushes on the NE side of the track. Working through that first patch it became clear that there was a large mass beneath another tree and then, after clearing that and confronting the steep drop, that the steep slope was heavily infested along the contour in both directions while a small sea of pink flowers waved at us from the flat expanse at the bottom. Weeks of work beckoned!!

Date	Volunteers	Time Spent per person (Estimate)	Total Time Spent Man-Hours (Estimate)
Th 11 th July	4	2 ½	10
	4	1	4
Th 18 th July	6	2½	15
Th 25 th July	4	2½	10
Th 1 st Aug	11	3	33
Th 15 th Aug	12	2½	30
Th 22 nd Aug	6	1½	9
Th 29 th Aug	9	1½	13½
Total			124½

Table 5 “Mega Hotspot;” volunteer work input for the first sweep.

I noted after my recce on 10th July (before the full extent was known) that my plan for the following day included “Finish the first hotspot on the plantation track.” In fact it took us until 29th August to finish that first sweep! It is surely worth recording the effort. Strikingly, the total man-hours for that first sweep worked out at 124½ which equates to 32.4% of the total of 384 man-hours for the whole year (See Table 2) ie a third. It can be added that a quick second sweep in two sessions (Thursdays 19th and 26th September) added another 25 man-hours respectively (6 and 19) to that total. A distinctive feature of this late work

was the impish way in which plants adopted a late-season strategy of flowering and pod formation barely 6 inches above the ground!

Total man-hours expended on the Mega Hotspot will surely come down in the future although it will certainly continue to receive a considerable proportion of our attentions.

Conclusion

Despite the problem posed by the above Mega Hotspot, 2019 was an excellent year. Above all, the new volunteers have produced a delightful team and the work has been pure pleasure throughout.

We continue to work and liaise with Clinton Devon Estates, especially with Kate Ponting and Dr Sam Bridgewater, and through them with the other teams in the Otter Valley. These include Newton Poppleford, Tipton St John and the Tale Talley Trust. All swap experiences at an annual seminar.

Once again Clinton Devon Estates rewarded all teams with a "Thank-You Lunch," this time at The Otterton Mill on 9th October 2019. We all enjoyed the excellent company. "Thank you" Clinton Devon Estates!

And "Thank You" to the wonderful OVA team. We trust that the coronavirus can be overcome so that we can continue the assault on the HB pandemic.

Patrick **Hamilton**