TAMAR VALLEY INVASIVE SPECIES PROJECT: ERADICATION OF GIANT HOGWEED

Tamar Valley Giant Hogweed Control 2023
Final report

Adam Phillips, December 2024

(Compiled by V. Darwall, Tamar Valley National Landscape)

INTRODUCTION

1. PROJECT BRIEF

The Tender issued by the Tamar Valley National Landscape office (formerly AONB) has been to 1) Survey the Tamar Valley project area for Giant Hogweed (*Heracleum mantegazzianum*) and report on the findings and 2) carry out Hogweed treatment in the Tamar Valley AONB project area, with a maximum 60 work days.

2. CONTEXT SETTING

The Tamar Invasive Group, (the Group), was set up in 2001 to control invasive plant species within the Tamar Valley Catchment. The core members of the Group are Natural England, the Environment Agency, Tamar Valley National Landscape (TVNL) (formerly Area of Outstanding Natural Beauty) and Cornwall County Council.

The long-term objective of the Group is to control and, if possible, eradicate specific invasive plant species in the Tamar Catchment where they have a potential detrimental effect on the environment, landscape or livelihood of those living in the Valley.

Currently the objectives of the project are to build on work carried out since 2001 to control and eradicate Giant Hogweed within the Tamar catchment along the main stem of the River Tamar downstream of Polson Bridge and the river Lyd to Greenlanes Bridge/Sydenham (Appendix 1).

3. LAND OWNERSHIP

It is thought that the current Landowner contact database is up to date.

The only sites within the contract area not to be included in the survey/control are

1. A parcel of land situated between Okeltor and Harewood Farm above Calstock- landowner has not granted permission to access and is controlling the plants himself. Note, the only other

Organic holding is the tenanted Southcombe Farm, previously in HLS (Higher Level Stewardship).

2. Rumleigh Brickworks has also never been surveyed by the group due to lack of permission. However, an agent acting on behalf of the landowner has carried out survey and control work in the past – they have no reported back to TVNL in 2023 (as occasionally done in previous years).

4. HIGHER LEVEL STEWARDSHIP (HLS)

There have been no HLS payments for the management of INNS on the project sites, during 2023.

METHOD

1. HEALTH AND SAFETY

The contractor complied with the Risk Assessments previously supplied. Regular phone contact was maintained with the project team.

2. DATA RECORDING

Survey work was carried out at the same time as the treatment of Giant Hogweed - this was thought to give the most accurate readings for the number of plants controlled.

Both banks of the River Tamar were walked from Calstock to the Lyd confluence (Cornwall) and from New Quay to just upstream of the Lyd confluence (Devon). The Lyd was walked as far upstream as Sydenham.

Large scale Ordnance Survey field maps were hand annotated to show the location of Giant Hogweed plants (Appendix 2). The size of Giant Hogweed plant was not recorded as that information would only be relevant to the date it was recorded. Size categories could change within a few weeks.

In addition to walking the main riverbanks, attention was paid to visiting other parts of the floodplain including ditches, wet woodlands and grasslands. In addition, known problem areas away from the river, such as the Rookery at Wooladon Farm were checked and treated as in previous years, with the exception of Sydenham tip, as no plants had been found at this location in the previous 3 years.

3. TREATMENT PROGRESS

Giant Hogweed control

This was done using a combination of digging and chemical control. The 3-phased control programme commenced on the April 17th and finished on June 24th 2023, with phases overlapping somewhat (lower tidal sections on phase 2 or even 3 at the same time as upper non-tidal catchment on phase 1).

The timing of the phases varies depending on weather, access and tidal conditions. Large tidal floodplains become largely inaccessible by June due to vegetation growth and a lack of management in these areas. Phase 3 is carried out on the tidal zones with the use of binoculars from any vantage points to identify any flowering plants. Inaccessible tidal sections were surveyed from a kayak.

All the project area was covered by phase 1; phase 2 was limited to the areas listed below; the areas not to be included in phase 2 are those that have a narrow corridor with grazing up to the river, or areas that are regularly strimmed by the fishing clubs. The areas are: The Lyd, (excluding the Sydenham estate and Wooladon farm), Tamar Devon side from Gunnislake Newbridge to Greystone Bridge and Tamar Cornwall side from north of Whimple Farm to Greystone Bridge (except Lowertown Farm, Hawksmoor farm, the South West Water depot and the toll house just above Gunnislake Newbridge).

<u>Inaccessible Plants</u>

On the non-tidal sections, all plants were controlled during the treatment of the river section. This was carried out during times of low water, notably the island above Gunnislake Newbridge and the small island below Gunnislake weir, where access was possible with the use of waders.

There were no noticeable inaccessible plants at Rumleigh Brickworks. The land agent has not reported back regarding Giant Hogweed control work in 2023 but the TVNL office will continue efforts to support the private survey/control of Giant Hogweed at Rumleigh Brickworks in 2024.

RESULTS

The overall number of Giant Hogweed plants located in the whole project area (main riparian and adjacent non-riparian sites) in 2023 was **282**. Total number of plants in the riparian survey area increased by 34, from 245 in 2022 to **279** in 2023 (Table 1).

The increase in numbers is due to a persistent population at one hotspot in the estuary, resulting in the tidal section population remaining relatively large, with **277** plants located. Upstream in the main non-tidal sections, Giant Hogweed numbers are at an all-time low, with just **2** plants located in 2023, down from 7 in 2022. An additional **3** plants were found in adjacent sites off the river (see pages 7 and 8).

Table 1: Number of Giant Hogweed plants found and treated on the main riparian sections of the project area

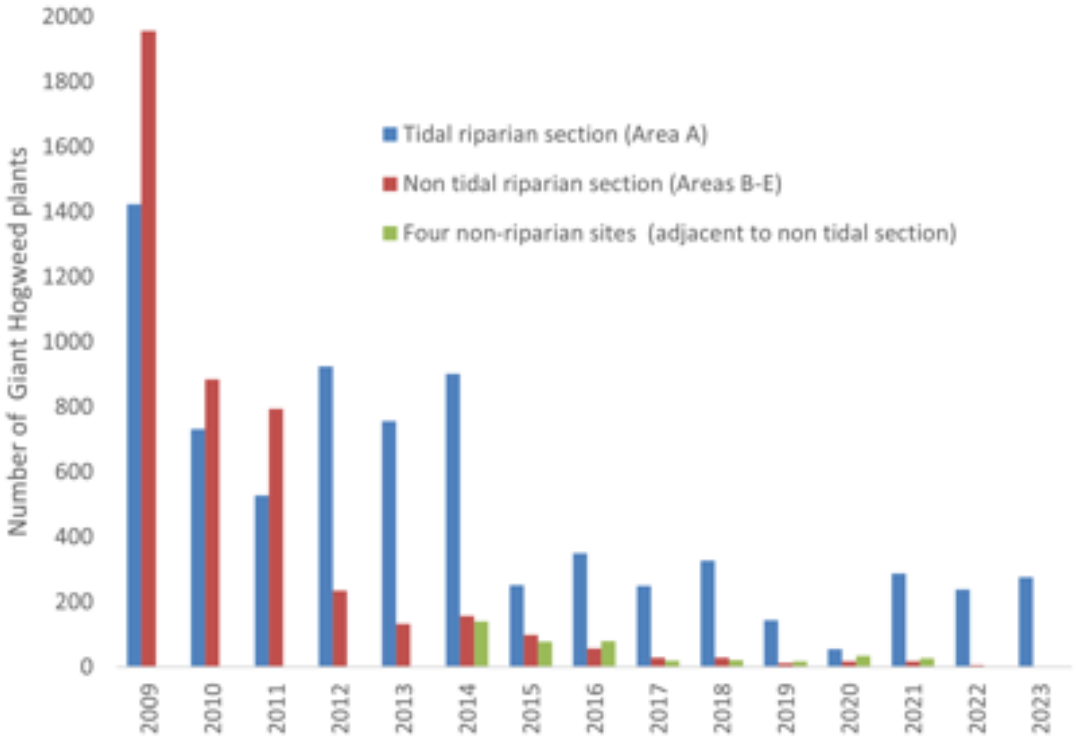
RIVER SECTION	YEAR	NUMBER OF PLANTS
TIDAL SECTION		
Area A Calstock to Gunnislake Newbridge	**2023**	**277**
	2022	238
	2021	287
	2020	56*
	2019	144
	2018	327
NON-TIDAL SECTIONS		
Area B Gunnislake Newbridge to Horsebridge	**2023**	**2**
	2022	5
	2021	2
	2020	2
	2019	5
	2018	7
Area C Horsebridge to Greystone Bridge	**2023**	**0**
	2022	1
	2021	4
	2020	9
	2019	4
	2018	13
Area D Greystone Bridge to Lyd confluence	**2023**	**0**
	2022	0
	2021	10
	2020	5
	2019	1
	2018	7
Area E Lyd confluence to Greenlanes Bridge (near Sydenham)	**2023**	**0**
	2022	1
	2021	1
	2020	1
	2019	2
	2018	2

** In 2020, survey/control was not carried out through this project at Morwellham, due to restricted access during the Covid-19 lockdown. Therefore, the 56 Giant Hogweed reported in 2020, from Calstock to Gunnislake, is likely to be an underestimate. It.does include twelve plants found and removed by landowner at Morwellham that year.*

Of the 277 plants located in the tidal section in 2023, 257 were within approximately 2.5km stretch of the river. This stretch included two larger clusters of 40 and 175 plants, the latter located in the Morwellham floodplain which remains the main hotspot for Giant Hogweed in the estuary.

While the tidal section remains the stronghold for this plant in the project area, as has been the case over the last 10 years (Figures 1-2), numbers upstream in the non-tidal sections are at their lowest since the project began, which is very encouraging (Figures 1, 3).

Figure 1: Change in number of Giant Hogweed plants in main riparian tidal, non-tidal and adjacent non-riparian sites between 2009 and 2023



Notes:

1. *Main survey not carried out at Morwellham (tidal section Area A) in 2020*
2. *Non-riparian sites: Endsleigh ponds and Pond cottage; Bradstone Mill; The rookery at Wooldon;*

Figure 2: Distribution of 277 Giant Hogweed plants in the tidal section in 2023
(note, blue circles indicate location of individual plants and plant clusters, not plant numbers)

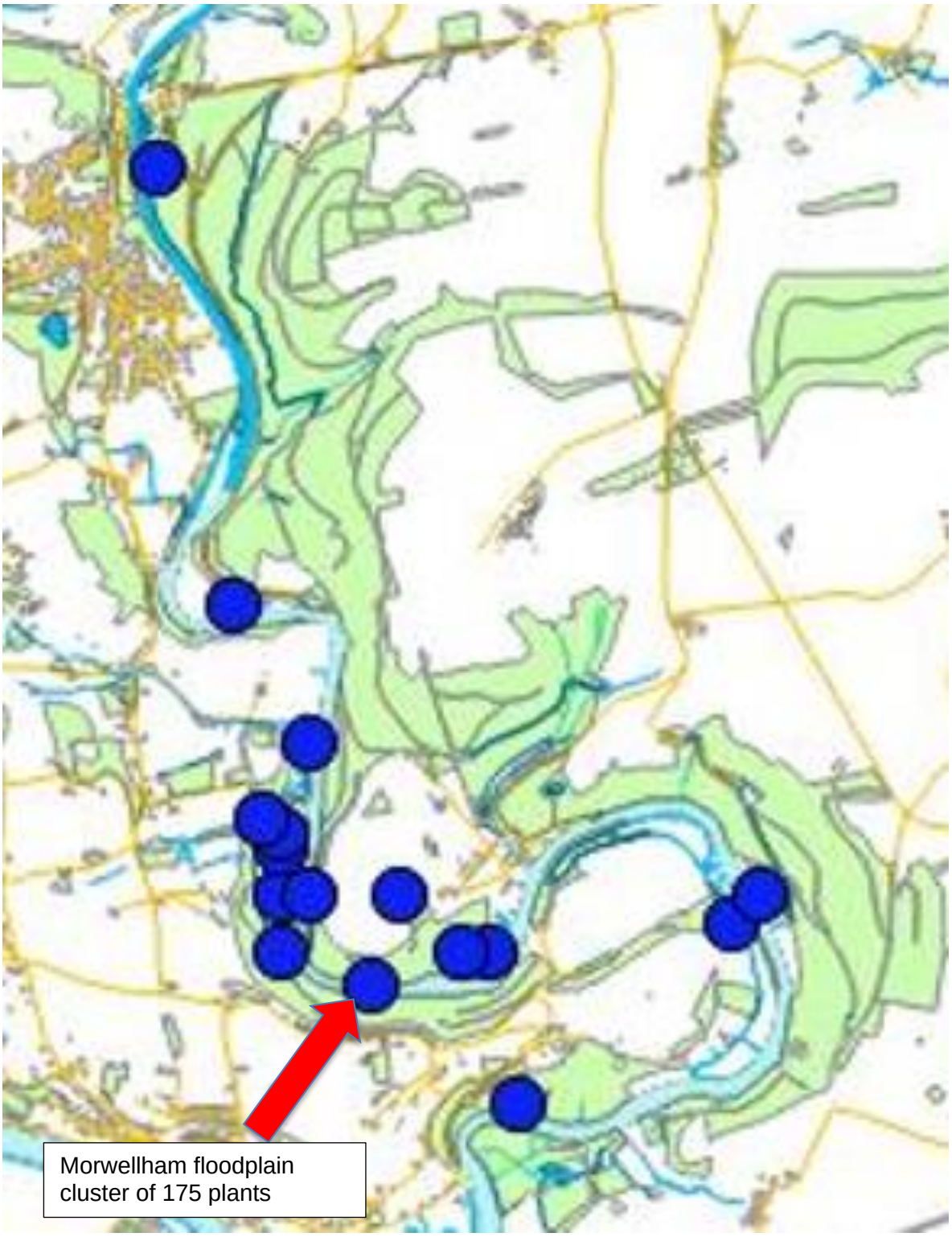
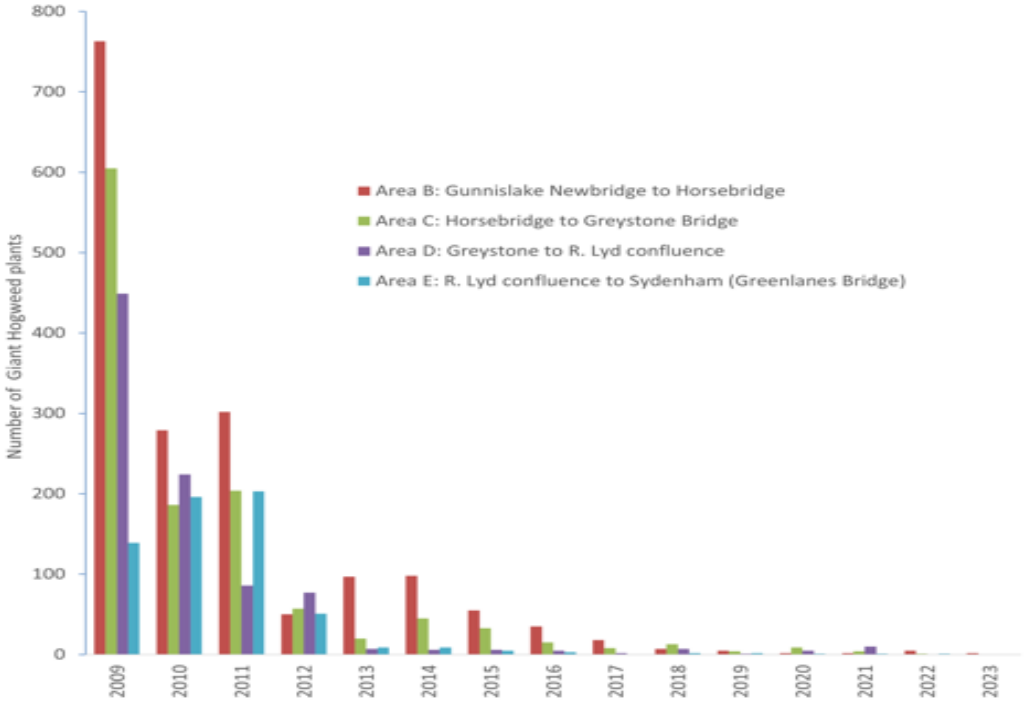


Figure 3: Change in number of Giant Hogweed in main riparian, non-tidal section between 2009 and 2023



Adjacent non-riparian sites

Of the four adjacent sites, surveyed annually in recent years, Giant Hogweed was found at only one site (**1 plant**), again a project low.

Table 2: Number of Giant Hogweed plants located in non-riparian sites adjacent to main survey areas

	Above ponds at Endsleigh[*1]	Bradstone mill pond	Rookery Wooladon	Sydenham farm and garden
2023	**1**	**0**	**0**	**0**
2022	2	0	1	0
2021	6	15	5	1
2020	30	0	4	1
2019	0	0	14	4
2018	0	2	16	3

*[*1] Plants found by Landmark Trust Pond cottage*

Other sites:

Bradstone village
This site was revisited, and no plants, found in 2022 and 2023, following the sighting and removal of a cluster of non-flowering plants in 2021.

Wooded area (between Endsleigh and Horsebridge):
Following suspected but unconfirmed sightings in 2021, no plants were reported or observed in 2022 or 2023.

Latchley
Four plants (including flowering) were sighted in a hedgerow and destroyed in 2022 in a historical hotspot for Giant Hogweed in the Tamar Valley. Site was revisited in 2023 and **two plants** removed.

New site, not in project area - North Cornwall (near Tamar Lakes)
In 2023, Giant Hogweed was reported, north of the project area, in the upper catchment. They were observed in a field corner and on an adjacent a road verge, near a ditch flowing to Lamberal Water which feeds into the R. Tamar. The TVNL office contacted Cornwall Council/Cormac who visited the site, but the plants had been strimmed by the landowner. The site will be re-visited in 2024 to reassess the pupulation size, consider the best management approach and advise the landowner.

DISCUSSION

Next steps

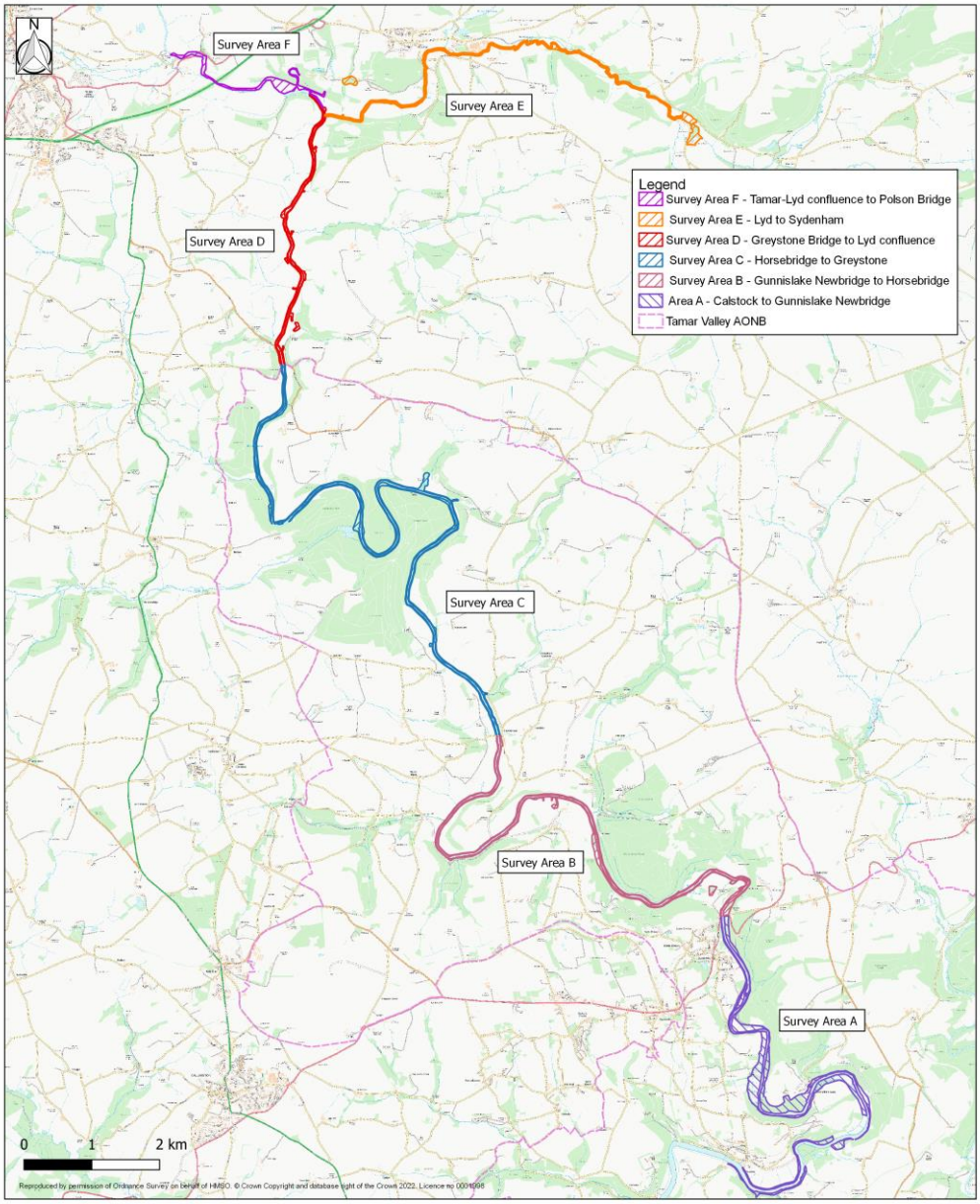
In addition to Giant Hogweed, the spread of other INNS in the Tamar catchment is of concern, notably Himalayan balsam and Japanese knotweed. Skunk cabbage is also taking hold, although the population is not established to the level of the other plants mentioned.

Managing these plants within the National Landscape would be considerably resource heavy, requiring a long-term commitment, with no guaranteed end point. This is compounded by the potential for re-introductions from upstream in the catchment, an ongoing issue highlighted in a review of this project in 2021.

A Defra funded project is currently underway, lead by TVNL, to assess the feasibility of, and interest in, a wider, collaborative Tamar catchment control programme for these species, including Giant Hogweed, prioritising the riparian zone. Approaches to catchment/sub-catchment INNS management elsewhere will be assessed, to inform what can realistically be achieved in the Tamar area, including the potential use of other technologies. This work will feed into a strategy for INNS control, due in late Autumn 2024.

APPENDICES

Appendix 1: Overview of current Giant Hogweed project area



Note: Area F was not included in the 2023 control programme (it was surveyed in 2021 as part of an additional walkover survey - no plants were found)

Appendix 2: Hand annotated field map showing location and number of Giant Hogweed plant clusters between Calstcok and Morwellham in 2023.