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**TAMAR VALLEY INNS MANAGEMENT
FINAL REPORT 2024**

**Tamar Valley Giant Hogweed Survey & Control Programme
(Local Invasive Species Management Fund)**

&

**American Skunk-cabbage Survey & Control
(Farming in Protected Landscapes Programme)**

Adam Phillips, September 2024

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

Tamar Invasives Group:



Tamar Valley
National
Landscape



Environment
Agency



INTRODUCTION

This report presents INNS survey and control work undertaken in the Tamar valley in 2024, funded by two sources; the Local Invasives Management Fund (Giant hogweed) and the Farming in Protected Landscapes programme (American skunk-cabbage). This funding allowed us to maximize the impact of contractor time in the field.

1. PROJECT BRIEF

Giant hogweed

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.

American skunk-cabbage

As highlighted in the 2023 project report, in addition to Giant hogweed, the spread of other INNS in the Tamar catchment is of concern including American skunk-cabbage (*Lysichiton americanus*), a species which was observed to be taking hold, although not established to the level of other INNS such as Himalayan balsam and Japanese knotweed.

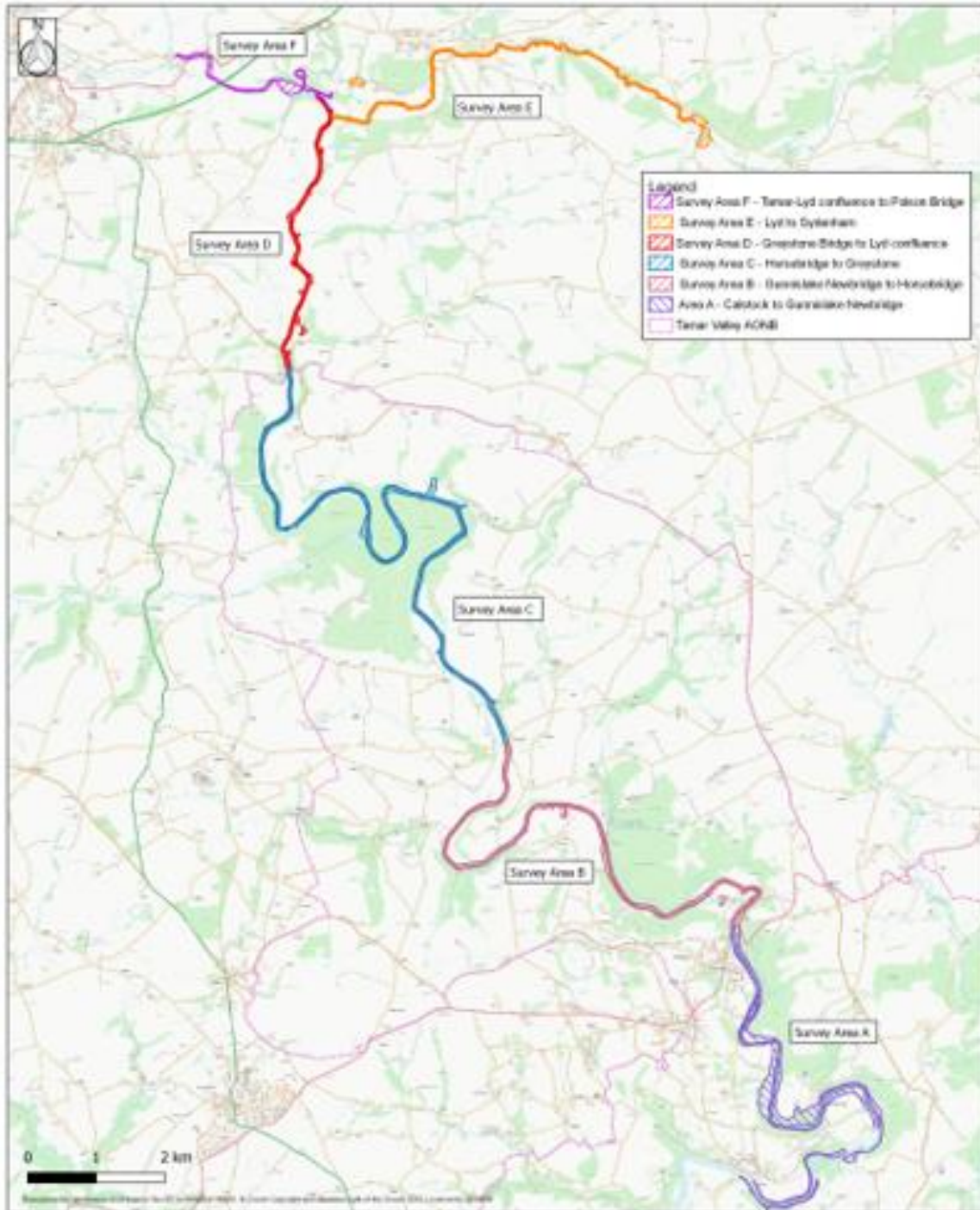
With American skunk-cabbage still in its establishment phase (recognised as the time to begin management to avoid exponential population growth) additional funding was secured through the Farming in Protected Landscapes Programme, to simultaneously survey and control this species, while undertaking Giant hogweed management in the established project area.

2. CONTEXT SETTING & SURVEY/CONTROL AREA

The Tamar Invasive 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.

The project builds on work carried out since 2001, controlling 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. The current survey area extends along both banks of a 45km stretch of the Tamar and lower Lyd rivers, approximating 167ha of riverbank and floodplain habitat (Figure 1).

Figure 1: Map of current Giant hogweed survey and control area

Note: Area F was not included in the 2024 control programme (it was surveyed in 2021 as part of an additional walkover survey - no plants were found)

3. LAND OWNERSHIP

It is thought that the current Landowner contact database is up to date. Note, in March 2024 all landowners were given advanced notification of the start of the annual Giant hogweed management programme and were informed that American skunk-cabbage control would also be undertaken, unless they withdrew consent (Appendix 1). No consent was withdrawn.

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 (see update, page 13). 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. Contact was made again in 2024 with a person who has supported the landowner to control Giant hogweed in previous years, but they have moved out of the area recently, so no longer working on the site. Consideration on how to re-engage the landowner is needed.

4. HIGHER LEVEL STEWARDSHIP (HLS)

There have been no HLS payments for the management of INNS on the project sites, during 2024.

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. The size of plants 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. 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 16th and finished on June 26th 2024, with phases overlapping somewhat (lower tidal section phase 2 or even 3 surveys at the same time as upper non-tidal catchment phase 1 survey).

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 Whimble Farm to Greystone Bridge (except Lowertown Farm, Hawksmoor farm, the South West Water depot and the toll house just above Gunnislake Newbridge).

Note – American skunk-cabbage was controlled at the same time by digging and spraying.

Inaccessible Plants

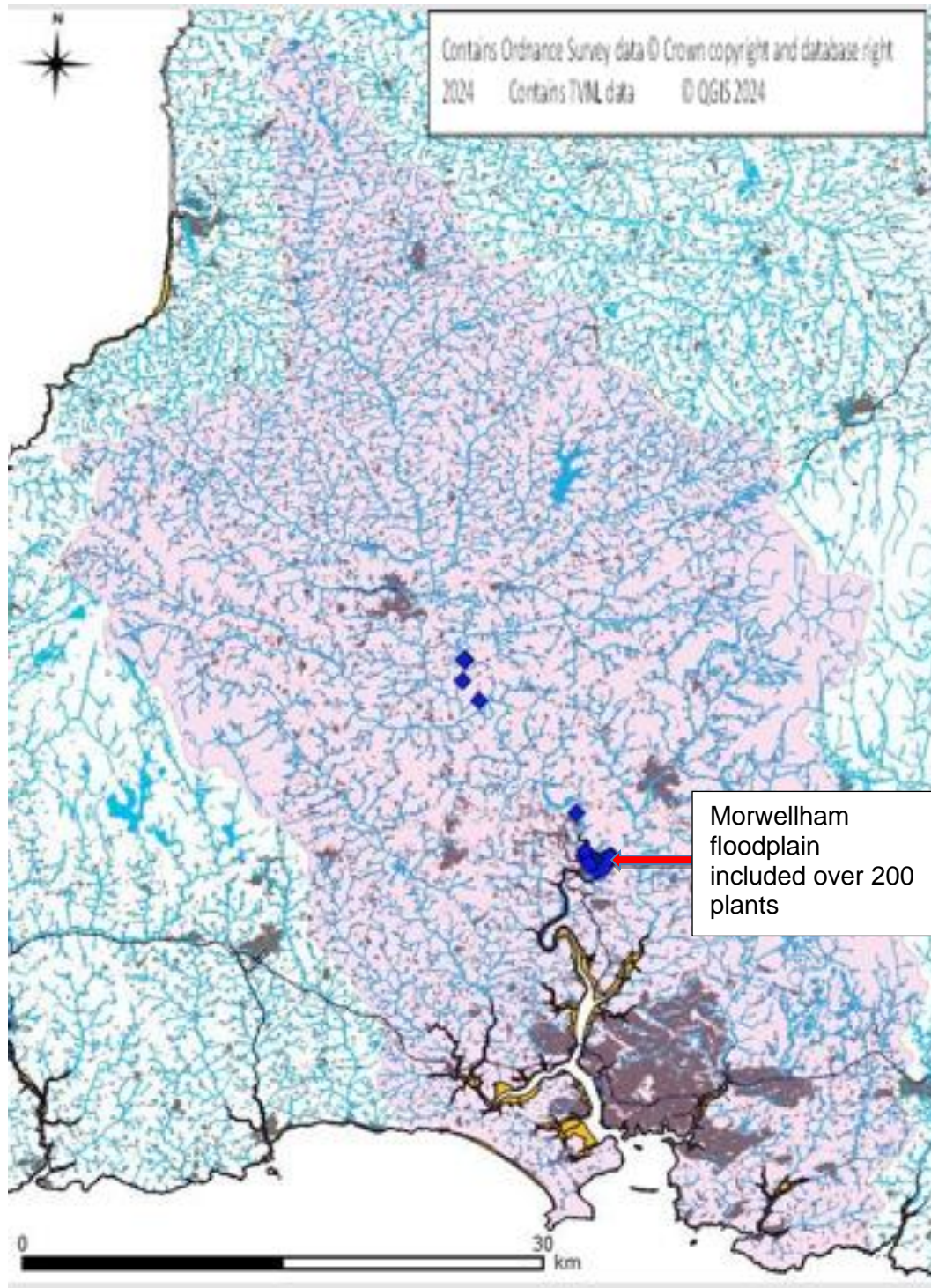
On the non-tidal sections, all plants were controlled during the treatment of the river section. This was carried out during times of low water, notably the island above Gunnislake Newbridge and the small island below Gunnislake weir, where access was possible with the use of waders.

RESULTS

Giant hogweed survey and control results 2024

The overall number of Giant hogweed plants located in the whole project area (main riparian and adjacent non-riparian sites) in 2024 was **278**, a decrease of 1 from the **279** plants found in 2023 (Figures 2-7). No plants found in adjacent non-riparian sites. The persistent population at one hotspot in the estuary (over 200 plants Morwellham), resulted in the tidal section population remaining relatively large with **274** plants in total. Upstream in the main non-tidal sections, Giant hogweed numbers remain low, with 4 plants found, up from a project low of **2** plants located in 2023. No plants were found on the River Lyd for 2 years in a row, which is encouraging.

Figure 2: Location of 278 Giant hogweed plants in the current control programme area in 2024



Note, blue squares indicate location of individual plants and plant clusters, not plant numbers. The survey area covered by the field control team does not extent across the whole Tamar catchment (highlighted in pink). However additional survey work was undertaken as part of the Local Invasives Management Funded Tamar catchment feasibility study with final reporting in November.

Figure 3: Hand annotated field map showing location and number of Giant hogweed (green) and American skunk-cabbage (red) clusters near Morwellham in 2024.



Figure 4: 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 | | |
| | 2024 | 274 |
| | 2023 | 277 |
| Area A | 2022 | 238 |
| Calstock to Gunnislake Newbridge | 2021 | 287 |
| | 2020 | 56* |
| | 2019 | 144 |
| | 2018 | 327 |
| NON-TIDAL SECTIONS | | |
| | 2024 | 0 |
| | 2023 | 2 |
| Area B | 2022 | 5 |
| Gunnislake Newbridge to Horsebridge | 2021 | 2 |
| | 2020 | 2 |
| | 2019 | 5 |
| | 2018 | 7 |
| | 2024 | 2 |
| Area C | 2023 | 0 |
| Horsebridge to Greystone Bridge | 2022 | 1 |
| | 2021 | 4 |
| | 2020 | 9 |
| | 2019 | 4 |
| | 2018 | 13 |
| | 2024 | 2 |
| Area D | 2023 | 0 |
| Greystone Bridge to Lyd confluence | 2022 | 0 |
| | 2021 | 10 |
| | 2020 | 5 |
| | 2019 | 1 |
| | 2018 | 7 |
| | 2024 | 0 |
| Area E | 2023 | 0 |
| Lyd confluence to Greenlanes Bridge (near Sydenham) | 2022 | 1 |
| | 2021 | 1 |
| | 2020 | 1 |
| | 2019 | 2 |
| | 2018 | 2 |

* Note, 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.

Within the 7.4km of tidal river surveyed (Figure 5), 254 of the 274 plants located were along a 1.25km stretch of the river. This stretch included two larger clusters of 20 and 200 plants, the latter located in the Morwellham floodplain which remains the main hotspot for Giant hogweed in the estuary. The map of this stretch below, highlights the challenges of eradicating INNS in difficult to access areas with wetland, ditches and large deposits of soft sediments, a feature of floodplains in the lower Tamar catchment.

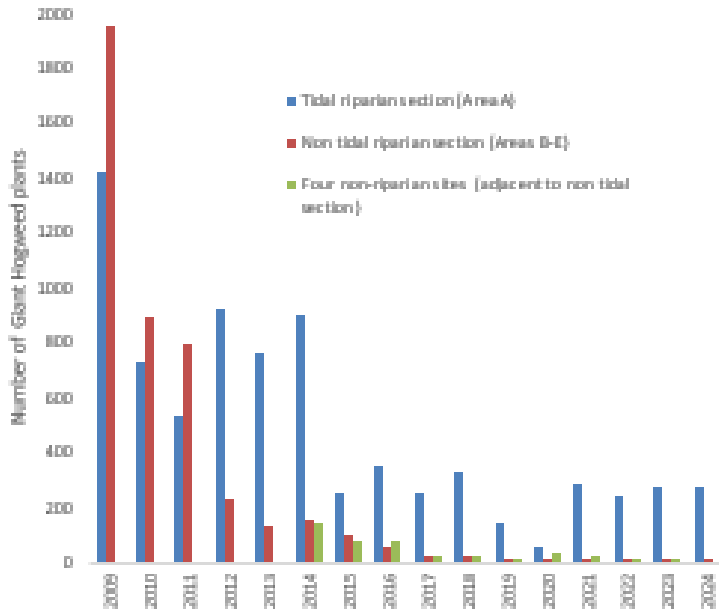
Figure 5: Stretch of the River Tamar surveyed with largest infestations of Giant hogweed and American skunk-cabbage, 2024



© Map Tamar Valley. Google Maps, 2024, maps.google.com.

While the tidal section remains the stronghold for this plant in the project area (Figure 6), numbers upstream in the non-tidal sections remain very low since the project began, although they can still appear in places which were free of Giant hogweed in recent years (Figures 5-7).

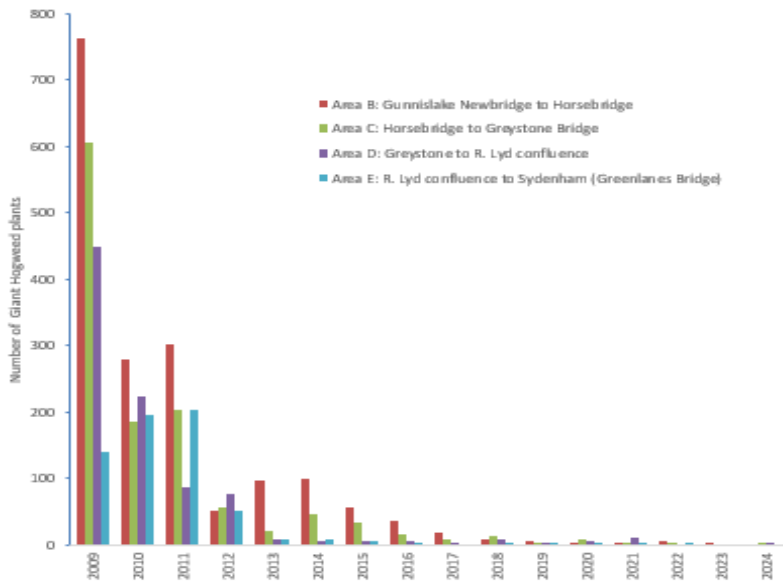
Figure 6: Change in number of Giant hogweed plants in main riparian tidal, non-tidal and adjacent non-riparian sites between 2009 and 2024



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 Woaldon. No plants found in 2024.

Figure 7: Change in number of Giant hogweed in main riparian, non-tidal section between 2009 and 2024.



Adjacent non-riparian sites

For the first time since these sites have been surveyed, Giant hogweed were not found at any of these four sites this year (Figure 8).

Figure 8: 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 |
|-------------|--|---------------------|------------------|--------------------------|
| 2024 | 0 | 0 | 0 | 0 |
| 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:Rumleigh

In June, a flowering Giant hogweed plant was seen by the property boundary with Gawton and removed. The land agent (only previous available link with landowner) was contacted and they are no longer involved on the site. As permission is required to enter the main site, it's completely unknown if there were any inland plants.

Harewood peninsula

To maintain an organic integrity, the owner of a site on the Harewood peninsula, within and adjacent to the Tamar-Tavy SSSI, has cleared Giant hogweed, Himalayan balsam, American skunk-cabbage and Japanese knotweed by hand for many years. In the past, this work has been supported with funding through Natural England and the Environment Agency. In recent years, the Tamar Valley National Landscape has supported this work with a small financial contribution.

One Giant hogweed was located this year a 7 acre marsh, although the landowner notes that not every square metre can be checked due to the difficult terrain. In addition a late sighting of a flowering plant was reported in July to the National Landscape office – the information was passed on to the landowner who removed the flower heads and cut out the root.

Details on all the INNS management undertaken by the landowner at Harewood can be found at <https://calstock.org.uk/elf/hogweed-invasive-plants>.



Harewood - single flowering Giant hogweed, July 2024 (© P. Thompson) and earlier plant in wetland, April (© R. Lovejoy)

Bradstone village

This site was revisited in 2024 - no plants found since, 2022 following the sighting and removal of a cluster of non-flowering plants in 2021.

Latchley

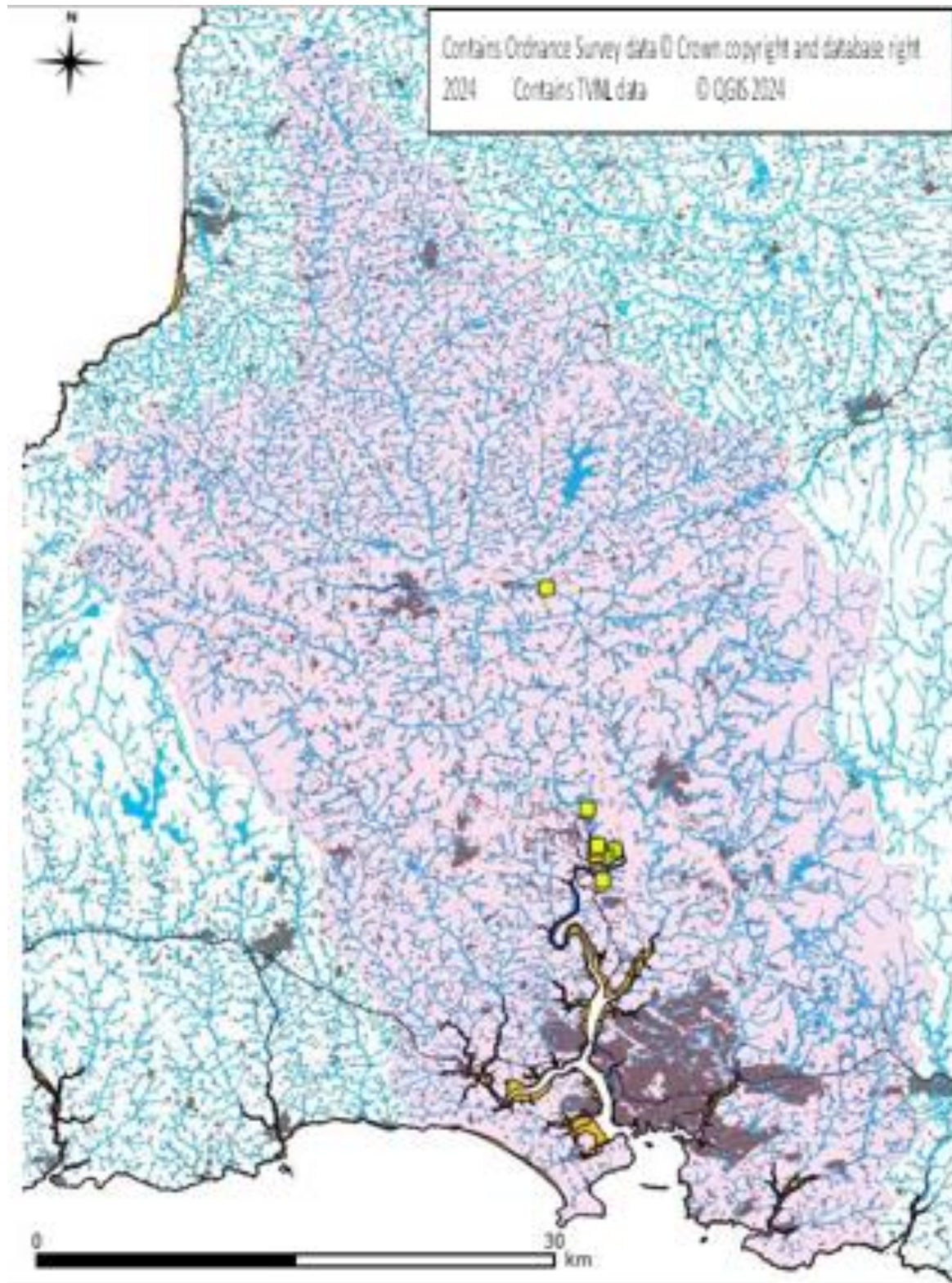
Four plants (including flowering) were sighted in a hedgerow and destroyed in 2022 in a historical hotspot for Giant Hogweed in the Tamar Valley. Site was revisited in 2023 and two plants removed. No plants located in 2024.

New site, not in project area - North Cornwall (near Lamberal Water tributary of the Tamar)

First reported in 2023. This site was visited in 2024 by Cormac Ltd, to assess the infestation, consider the best management approach and advise the landowner. Cormac sprayed the roadside plants and contacted the landowner in May, offering to provide them with a quote to control source plants located in a willow copse in adjacent field – this area was the site of a historical pond and the landowner was concerned about impacts on toad population. Cormac have not had a response and have since enquired if the National landscape might have funds to pay for the treatment.

American skunk-cabbage survey and control results 2024

American skunk-cabbage was mainly located in the tidal stretched of the Tamar – again Morwellham proved to be the hot-spot (over 6000 plants) although plants were also found upstream. Much of the non-tidal areas free of the plant, except at the top of the survey area, with 17 plants within 500m Sydenham Estate. See Figures 3,5 and 9,10.

Figure 9: Location of Skunk-cabbage plants in the current Giant hogweed control programme area, 2024

Note, yellow squares indicate location of individual plants and plant clusters, not plant numbers. The survey area covered by the field control team does not extent across the whole Tamar catchment (highlighted in pink). However additional survey work was undertaken as part of the Local Invasives Management Funded Tamar catchment feasibility study with final reporting in November.



© American skunk-cabbage in Tamar Valley 2024 (A. Phillips)

Figure 10: Number of American skunk-cabbage plants found and treated on the main riparian sections of the Giant hogweed project area

| RIVER SECTION | YEAR | NUMBER OF PLANTS |
|---|-------------|------------------|
| TIDAL SECTION | | |
| Area A Calstock to Gunnislake Newbridge | 2024 | 6950 |
| NON-TIDAL SECTIONS | | |
| Area B Gunnislake Newbridge to Horsebridge | 2024 | 0 |
| Area C Horsebridge to Greystone Bridge | 2024 | 0 |
| Area D Greystone Bridge to Lyd confluence | 2024 | 0 |
| Area E Lyd confluence to Greenlanes Bridge (near Sydenham) | 2024 | 17 |

DISCUSSION

Giant hogweed

The results largely speak for themselves, generally going in the right direction in the non-tidal area. The plants being found are either from residual seed from previous infections in the area or from another unknown source. Note, the last seeded plant in the area where plants were found this year was located approximately 10 years ago.

The tidal area obviously still needs attention. The remains of 2021 seeded plants (lockdown year when site not visited) were found at Morwellham the following year.

Rumleigh poses a serious threat to the eradication effort and to the Tamar Tavy SSSI and contacting the landowner is a matter of urgency. Having observed a flowering plant by the boundary, we are concerned that plants on the wider site may well have put out some seed. It is likely control measures are not in place with the land agent no longer involved on site and the elderly landowner living elsewhere. The land agent could not help directly but suggested we write to Mr. Baker offering assistance to manage the situation.

American skunk-cabbage

Field work had quite a difficult start, getting to know the plant and actually quantifying the extent. On a later Morwellham trip (found to be the hot-spot for both American skunk-cabbage and Giant hogweed), contractors tried an early treatment and estimated about a 50% kill rate – therefore, as suggested in research, follow up trips are necessary. However, hitting the same problem as experienced with late season Giant hogweed control on tidal section – it is very near impossible to access these areas, other than spring (pre significant growth). Found that later we needed to cut our way through the vegetation, with visibility less than a metre.

American skunk-cabbage also proved to be slightly more problematic with its habitat favouring the wetter areas, often underwater and tolerating shade much more than Giant hogweed. It was invariably located in pools under fallen willows, so access was increasingly challenged. A proper eradication would probably involve significant summer brushcutting to access all known areas, to be able to have follow up herbicide treatments.

APPENDICES

Appendix 1: Letters sent to landowners regarding 2024 INNS control programme (where consent already given)

To Riparian farmers and landowners in the Tamar Valley National Landscape

Date: 26 March 2024

Dear Sir/Madam,

Re: Survey of invasive non-native species and treatment of Giant Hogweed in the Tamar catchment 2024

This letter is to inform you that the annual survey and control of Giant Hogweed in the Tamar catchment will be underway from mid-April. This work is co-ordinated by the Tamar Valley National Landscape (formerly AONB) on behalf of the Tamar Invasives Group, a partnership of 4 organisations: Natural England, Environment Agency, Cornwall Council and the Tamar Valley National Landscape.

It has taken many years of annual treatments to ensure an almost year-on-year reduction in Giant Hogweed plant numbers. Total numbers are up slightly from 2022 (282 plants located in 2023), including a persistent estuarine population (277 plants). Upstream, in the main non-tidal sections, Giant Hogweed numbers are at an all-time low, which is very encouraging, with just 2 plants located in 2023. The full results of the 2023 programme are available to view online at <https://www.tamarvalley-nl.org.uk/wp-content/uploads/2024/02/FINAL-Tamar-Valley-Giant-Hogweed-Control-2023-final-report-Jan-2024.pdf>. If you would like to receive a copy of the report, please do contact the Tamar Valley National Landscape.

Our contractors or staff will attempt to contact you by phone or email before accessing your property. Where consent has already been granted, we will continue to carry out annual Giant Hogweed survey and control treatments, unless you withdraw consent by contacting us as soon as possible by writing to the Tamar Valley National Landscape, Tamar Valley Centre, Cemetery Rd. Drakewalls, Cornwall PL18 9FE or emailing enquiries@tamarvalley.org.uk. **You have the right to withdraw consent at any time.**

The first phase of the programme will take place in April, during which located Giant Hogweed plants will either be dig out or, if necessary, be treated with chemical sprays by our licensed contractor, Adam Phillip, and his small team. Second and third visits to spray may also be necessary to catch plants that were missed on earlier visits. If non-native invasive American American skunk-cabbage is located in the survey area, this may also be controlled, depending on resources. **Please note, we are also carrying out a survey of Japanese knotweed, Himalayan balsam and American American skunk-cabbage in the Tamar catchment, so a second contractor, Mervyn Newman, may also contact you regarding this work.**

Continued next page

If you see a suspected Giant Hogweed plant, we would be grateful if you could contact our office as soon as possible.

A summary of how we protect your personal data is outlined overleaf. Should you wish to view the National Landscapes full privacy policy, it is available online at <https://www.tamarvalley-nl.org.uk/privacy-policy/>.

If you have any questions about this work, please do not hesitate to contact me on enquiries@tamarvalley.org.uk.

Yours sincerely,

Sarah Gibson
(Manager, Tamar Valley National Landscape)

FURTHER INFORMATION ABOUT THE GDPR AND YOUR RIGHTS

What are my data rights?

Your personal information belongs to you and you have the right to:

- be informed of how we will process it
- request a copy of what we hold about you and in commonly used electronic format if you wish
- have it amended if it's incorrect or incomplete
- have it deleted (where we do not have a legal requirement to retain it)
- withdraw your consent if you no longer wish us to process
- restrict how we process it
- object to us using it for marketing or research purposes
- object to us using it in relation to a legal task or in the exercise of an official authority

How do I exercise these rights?

If you would like to access any of the information we hold about you, or have concerns regarding the way we have processed your information, please contact:

Simon Mansell, Data Protection Officer, Assurance, Cornwall Council, County Hall, Truro, TR1 3AY Tel: 01872 326424

I don't agree with something

We would prefer any complaints to be made to the Tamar Valley National Landscape initially so that we have the opportunity to see if we can put things right. However, if you are unhappy with the way we have processed your information or how we have responded to your request to exercise any of your rights in relation to your data, you can raise your concerns directly with the Information Commissioner's Office Tel No. 0303 123 1113 <https://ico.org.uk/concerns/>