Wyre Forest Study Group

Wyre Forest Crayfish – 2025 survey

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Introduction

After a dry and warm summer, the Environment Agency (EA) received reports (from members of the Wyre Forest Study Group) of low flow levels in Forest Lodge stream in the Wyre Forest. As we know (thanks to extensive survey efforts over the last decade – see Figure 1) that Forest Lodge holds the last known remaining population of White-clawed Crayfish in the Wyre Forest, both EA staff (Molly Mills) and the Wyre Forest Study Group (Graham and Ann Hill) urgently wanted to survey and check on the population and health status of the remaining White-clawed Crayfish.

Method

Taking advantage of an extension of the survey period for White-clawed Crayfish from Natural England, two Environment Agency (EA) staff were able to place Artificial Refuge Traps (ARTs) under their organisational licence on the 29th September 2025 and retrieve them at the end of October.

Due to a crayfish incident in another area of the West Midlands this summer, only 4 EA ARTs were available to be deployed in the Wyre Forest. Whilst this significantly reduced the amount of data we could collect, we believed it was still important to collect some data and so the four ARTs were strategically deployed across the downstream end of Forest Lodge stream (Figure 2).

ARTs consist of multiple plastic pipes, of differing diameters (to attract a range of crayfish age classes). They are open at one end and attached to a metal base plate at the other end (Figure 3). The ARTs were placed perpendicular to the flow and flat on the bed of the watercourse, with a large boulder placed on top to anchor it into the stream (Marshall and Nightingale, 2021). Following guidance in the Crayfish Conservation Manual, the ARTs should be left in the watercourse for two to four weeks (before checking) to allow the crayfish to acclimatise to them (Marshall and Nightingale, 2021). As a result, the ARTs were left in Forest Lodge stream and were then collected and checked by EA staff (Molly Mills and Mary Berry) and Wyre Forest Study Group members (Graham and Ann Hill) on the 27th October 2025.

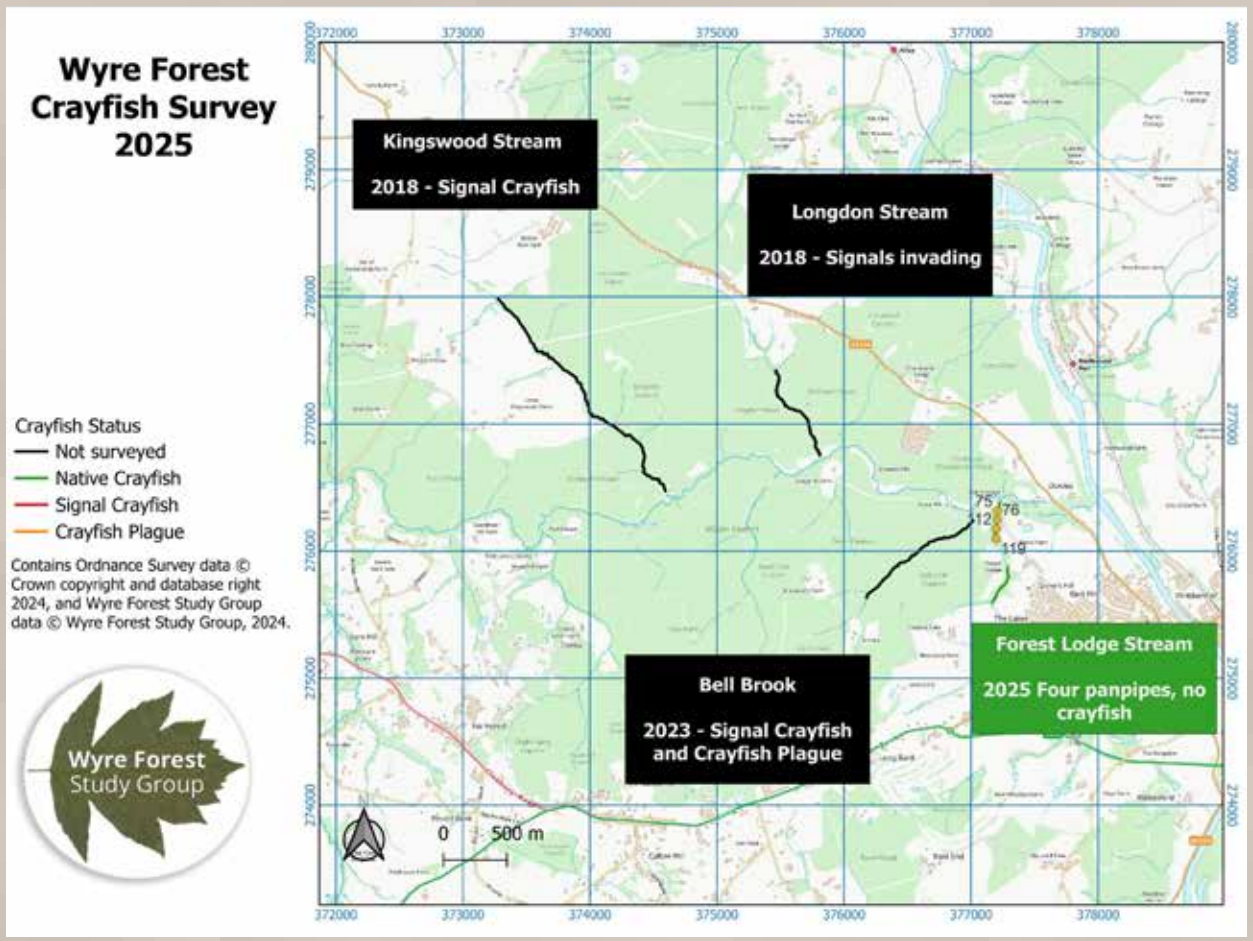


Figure 1. Status of Crayfish within Wyre Forest streams, 2025.

Wyre Forest Study Group

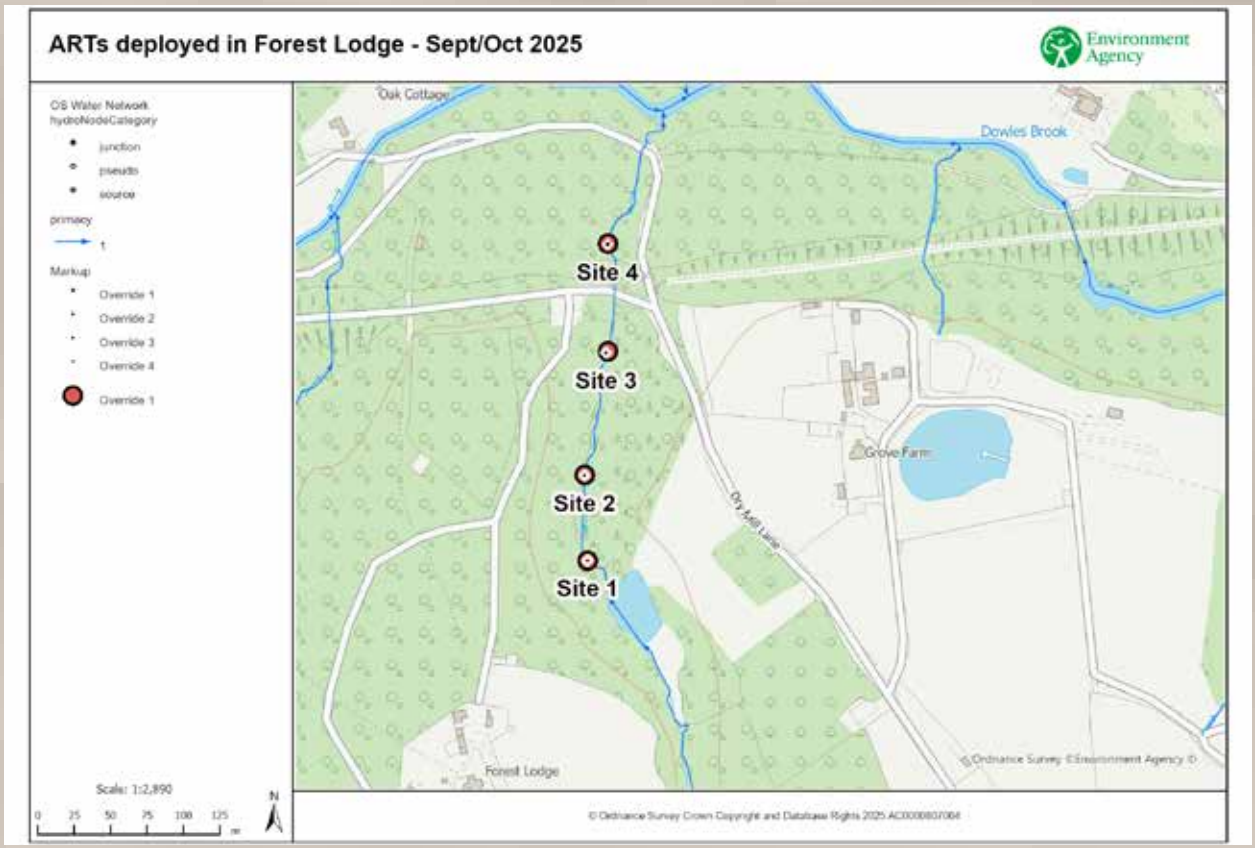


Figure 2. Location of Artificial Refuge Traps deployed in the Forest Lodge stream (29th September 2025).



Figure 3. Picture of an Artificial Refuge Traps being deployed by an Environment Agency officer in the Wyre Forest in August 2024.

Wyre Forest Study Group

Whilst checking the ARTs, brief manual searches for White-clawed Crayfish were also carried out. This involved stone-turning with hand nets (*i.e.* lifting suitable substrate slowly to carefully examine for the presence of White-clawed Crayfish).

Results

No White-clawed Crayfish were identified in any of the ARTs deployed or during hand searches (Table 1).

Table 1. Data collected from Artificial Refuge Traps and hand searches in Forest Lodge Stream (27th October 2025).

Site	National Grid Reference	No. of crayfish observed in ART	No. of crayfish observed during manual search
1	SO7719276101	0	0
2	SO7719076160	0	0
3	SO7720676245	0	0
4	SO7720676319	0	0

Discussion

Whilst the results in Table 1 appear to be alarming, these results may not reflect the real, White-clawed Crayfish populations in the Forest Lodge stream. This is because White-clawed Crayfish burrow into refuges such as in submerged tree roots, amongst leaf litter and often into riverbanks (Marshall and Nightingale, 2021). It is therefore hoped that in low flow conditions, the White-clawed Crayfish at Forest Lodge would have been able to survive in these natural refuges. This is backed up by the literature which suggests that some crayfish species are able to burrow vertically into riverbanks during drought conditions (Kouba *et al.,* 2016).

It is also important to note that the licence to survey White-clawed Crayfish used to be only up until 31st September each year. 2025 is the first year where the survey period has extended to the end of October (courtesy of Natural England). Whilst it is known that White-clawed Crayfish do become inactive during the winter months (Marshall and Nightingale, 2021), it may be that this time period is earlier than first thought.

In addition, if White-clawed Crayfish populations in Forest Lodge had perished during the low flow conditions then it is likely that dead crayfish specimens would have been observed during the 27th October surveys – yet the results (Table 1) show that no white-clawed crayfish (dead or alive) were identified.

White-clawed Crayfish require a consistent supply of water for survival (Marshall and Nightingale, 2021) and low flows will reduce habitat availability and increase impacts from pollution and siltation. The nearest EA gauging station to Forest Lodge is at Oak Cottage on Dowles Brook (National Grid Reference SO 7710 7642). EA data from there shows that flows in August dropped to as low as 0.017 m^3s. As climate change is only likely to result in an increased number of hotter and drier summers (Environment Agency, 2025) then partnership catchment action is needed to protect the White-clawed Crayfish population in Forest Lodge Stream

To explore opportunities to support this vulnerable population, Molly Mills (EA) and Graham Hill (Wyre Forest Study Group) have recently been working with the Research and Conservation Officer at West Midlands Safari Park to look at options whereby the Park could assist in the safeguarding of the Forest Lodge population. However, further work is needed to ensure habitat requirements for the White-clawed Crayfish on site are met. This partnership is just getting underway and there is a lot of work to be done – but watch this space!

Working closely with the Wyre Forest Study Group, future work for protecting this vulnerable population also includes:

- Undertaking thorough surveys in summer 2026 (using up to 20 ARTs and potentially other survey techniques such as baited traps and evening torch-light surveys) to get more accurate population assessments of the white-clawed crayfish in Forest Lodge Stream.
- Continue to work with the West Midlands Safari Park to explore 'ark' sites for the Forest Lodge population. An ark site is defined as a discrete waterbody which can be used for sustaining a White-clawed Crayfish population for the foreseeable future and is seen as a key tool in White-clawed Crayfish conservation in England (Marshall and Nightingale, 2021).
- Work with local partners to try and add habitat enhancements into Forest Lodge stream (i.e. adding woody debris and/or riparian tree planting) to minimise the impact of future low flows in Forest Lodge by slowing the flow or shading the watercourse.
- Continue to look into potential funding

Wyre Forest Study Group

bids for future conservation efforts for the Forest Lodge population.

- Monitoring of low flow levels in Forest Lodge in summer 2026.

We are hopeful that, with strong partnership working, we will be able to find a surviving population of White-clawed Crayfish in Forest Lodge in 2026 and efforts can be developed to protect and conserve this population.

References

Environment Agency (2025). *Drought impacts continue despite changeable weather.* [Online]. [Accessed 22 December 2025]. Available from: https://environmentagency.blog.gov.uk/2025/09/23/drought-impacts-continue-despite-changeable-weather/.

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Kouba, A., Tíkal, J., Císař, P., Veselý, L., Fořt, M., Příborský, J., Patoka, J. and Buřič, M. (2016). The significance of droughts for hyporheic dwellers: evidence from freshwater crayfish. *Scientific Reports*, 6(26569).

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Figure 4. White-clawed Crayfish captured and surveyed in the Forest Lodge stream by Environment Agency staff in August 2024. Molly Mills