

The River Barle Crayfish Project

Name of project: The River Barle Crayfish Project (2014 and 2015)

Location: River Barle Site of Specific Scientific Interest (SSSI) in Exmoor National Park

By who? Exmoor Moorland Landscape Partnership (EMLP) and the Environment Agency (EA) Devon Fisheries and Biodiversity Team

How?: The EMLP funded the project with kind contributions from partners; Equipment was funded by the EMLP and the traps were provided by the EA and Nicky Green; investment of staff time from the EMLP and Exmoor National Park Authority (ENPA) was also provided for project promotion, recruitment of volunteers and research on landowner information.



Aims:

The aim of the project was to undertake a survey to assess the extent of the signal crayfish population on the River Barle in order to determine how far they have spread and the potential level of threat to the River Barle ecosystem.



Main considerations:

- The site to undertake the survey and the size of the survey
- Getting landowner permissions
- Getting volunteers involved and training them
- Complying with legislation
- Obtaining licences to trap the crayfish



Partnerships and other involvement:

- The Heart of Exmoor Scheme; ENPA Conservation Officers; ENPA Volunteer and Outreach Officer; EMLP Moorland Education and Outreach Officer
- EA (Devon) Fisheries and Biodiversity Team
- Volunteers
- The project is subject to PhD research by N. Green supported by Bournemouth University, EA and CEFAS (Centre for Environment, Fisheries and Aquaculture Science)
- Representatives of local angling associations and interest groups such as the River Barle Fishing Club, Exmoor Rivers and Streams Group, and River Exe and Tributaries Association.
- Funding from Heritage Lottery Fund through the Heart of Exmoor Scheme and ENPA's partnership fund

How was it undertaken: The method, in brief

- Pre-survey meetings were held involving stakeholders and a robust survey method was devised
- Landowner information was researched with help from Natural England, local landowners and anglers. Landowners were notified of the survey and cooperation requested. All landowners gave access and no one objected to the survey taking place.
- Volunteers were recruited by the ENPA and EMLP. During the course of the surveying season some volunteers dropped out and additional ones came forward.
- Two training days were held: The first involved providing volunteers with background information and being taken to a field site to be taught how to recognise suitable crayfish habitats, record habitat data and deploy and retrieve two types of traps; second session was held to reinforce lessons of the first session and to introduce the volunteers to live crayfish and how to survey them.
- Desk research was undertaken into historical crayfish records and previous survey results
- Survey data was collected by the volunteers using data collection forms designed for the project and analysed by the project team.

Constraints and limitations:

- Funding was the main constraint for the project, however, this was overcome by using volunteers as the core labour force, supported and guided by the project team.
- Timing constraints meant that the survey methods were limited to recording the presence/absence of crayfish and not more detailed survey methods such as density assessments.
- Survey season restraints to avoid disturbance to salmon and angling activities.
- Setting and re-setting traps for the survey was not given enough time which then caused a two week time lag, making survey progress slower than anticipated.
- Prior to trap setting, manual searches of the river were not always undertaken.
- The Weather – river flow levels are a major constraint (too high or too low to successfully and safely set traps).

Outcomes and recommendations:

The project found (in 2014 and 2015) that invasive signal crayfish have colonised a 10km stretch of the River Barle, including important salmon spawning areas. If the crayfish population is left unchecked then it will continue to expand and could cause major adverse impacts on the River Barle Ecosystem. Therefore the project recommends an integrated control strategy be developed to minimise likely impacts.

To get involved with this project or to find out more about it, please visit the ENPA's Get Involved website at: www.exmoor-nationalpark.gov.uk/get-involved



Artificial refugia trap; highly eroded river bank due to crayfish burrowing



Volunteers and staff inspecting crayfish traps ready for installing in the river