

East of England

Suffolk Crayfish Ark Project - Lead Organisation: Environment Agency

Native White-clawed crayfish have been all but wiped out from Suffolk's rivers. In order to preserve the presence of native crayfish of relatively local provenance in the county, it is proposed to establish 'ark' sites where new populations can be established. Ponds, lakes, gravel pits and rivers are all potentially suitable but have to be screened for suitability. Once sites have been identified, White-clawed crayfish from nearby threatened populations can be 'rescued' and used to stock the new sites.

Project title: Suffolk Crayfish Ark Project
Date the form was completed: 17/8/10
Organisation managing project: Environment Agency
Project Partners: Suffolk FWAG, Suffolk Water for Wildlife, Suffolk Biodiversity Project and Volunteers
Funders: Environment Agency, Suffolk Environment Trust plus voluntary inputs in kind.
Project type: Field project
Key Topics: Ark site establishment
Species: White-clawed crayfish
Project Location: Multiple waterbodies
Project timescale: Started Jan 2009. First site completed Sept 2009. Other sites ongoing.
Project contact: Julia Stansfield, EA
Website link:
Contact details: Julia.stansfield@environment-agency.gov.uk 01473 706057
Project Summary: Native white-clawed crayfish have been all but wiped out from Suffolk's rivers. In order to preserve the presence of native crayfish of relatively local provenance in the county, it is proposed to establish 'ark' sites where new populations can be established. Ponds, lakes, gravel pits and rivers are all potentially suitable but have to be screened for suitability. Once sites have been identified, white-clawed crayfish from nearby threatened populations can be 'rescued' and used to stock the new sites.
More detailed project description: Native white-clawed crayfish have declined dramatically in East Anglia's rivers, probably through a combination of competition with alien species and outbreaks of crayfish plague. In some rivers alien species, especially signal crayfish, have self-sustaining populations.

In order to preserve the presence of native crayfish in the region, it is proposed to establish 'ark' sites where several populations can be established. Ponds, lakes, gravel pits and rivers are all potentially suitable but have to be screened for suitability. This includes checking the site and any nearby waters for the presence of alien crayfish. Once sites have been identified, white-clawed crayfish from nearby threatened populations can be 'rescued' and used to stock the new sites.

A partnership project has been set up between the Environment Agency, Farming and Wildlife Advisory Group, Water for Wildlife project, the Suffolk Biodiversity Partnership and Natural England. Over the next five years we aim to set up several such ark sites in Suffolk.

The first potential site (a lake) was identified in 2009 on farmland north west of Ipswich, with an enthusiastic landowner. The site passed tests of suitability such as habitat and water quality. Trapping for presence of alien or native crayfish in the lake and nearby watercourses was carried out and no crayfish were found. The good natural habitat in the lake was supplemented with bundles of brushwood and piles of rubble to provide refuges. In August and September, native crayfish were caught from two sites where they are threatened by the presence of signal crayfish in the same catchment. One was Chadd Brook in Suffolk and the other the River Wensum in Norfolk. In total 140 crayfish were transferred. Initial monitoring by placing 'pan-pipe' refuge traps recovered one berried female. More formal monitoring by trapping will be carried out annually over five years.

Using this first site as a pilot, it is planned to expand to other sites in future years. The second site is under development in 2010. In general, the following tasks will be involved for each site:

- Screening sites
- Environmental Impact Assessment
- Written agreement with landowner
- Licencing of transfer from donor sites
- Habitat improvement
- Transfer of crayfish
- Monitoring for 5 years
- Publicity
- Post project appraisal

In addition, these non-site specific tasks will form an on-going part of the project:

- Forming project groups at county or regional level
- Finding potential sites
- Funding
- Education

Glaven Signal Crayfish Project - Lead Organisation: Environment Agency

The River Glaven in North Norfolk has been identified as one of the most important sites in the East of England for the conservation of White-clawed crayfish. However, recent surveys revealed the existence of signal crayfish in a group of ponds and the stream that connects them to the river.

A project group has investigated the possibility of protecting the native crayfish. Eradication of signals from the catchment was considered using a biocide, Pyblast, under advice from Stephanie Peay. Eventually this was thought too technically difficult and expensive. Measures to limit signal crayfish movement are now being planned, plus possible treatment of the ponds with Pyblast to reduce population pressure.

Project title: Glaven Signal Crayfish Project
Date the form was completed: 17/8/10
Organisation managing project: Environment Agency
Project Partners: River Glaven Conservation Group Norfolk Biodiversity Project Norfolk Non-Native Species Initiative Natural England Norfolk Water for Wildlife Volunteers
Funders: Environment Agency, Suffolk Environment Trust plus voluntary inputs in kind.
Project type: Feasibility study and field project
Key Topics: Barriers against crayfish and control measure
Species: Signal crayfish
Project Location: Coverage Type: Multiple waterbodies
Project timescale: Started Nov 2009. Ongoing.
Project contact: Julia Stansfield, EA
Website link:
Contact details: Julia.stansfield@environment-agency.gov.uk 01473 706057
Project Summary: The River Glaven in North Norfolk has been identified as one of the most important sites in the East of England for the conservation of white-clawed crayfish. However, recent surveys revealed the existence of signal crayfish in a group of ponds and the stream that connects them to the river. A project group has investigated the possibility of protecting the native crayfish. Eradication of signals from the catchment was considered using a biocide, Pyblast, under advice from Stephanie Peay. Eventually this was thought too technically difficult and expensive. Measures to limit signal crayfish movement are now being planned, plus possible treatment of the ponds with Pyblast to reduce population pressure.

More detailed project description:

The River Glaven in North Norfolk has been identified as one of the most important sites in the East of England for the conservation of white-clawed crayfish. A series of surveys carried between 2006 and 2010 have confirmed the existence of a large and healthy population of native crayfish in the river. However, these surveys have also revealed the existence of signal crayfish in a group of private ponds and the stream that connects them to the main river. Movement of signal crayfish into the main river appears to have been constrained by the presence of a number of barriers in the catchment, and there is no evidence to suggest that they have as yet entered the River Glaven. However, the risks of infestation are extremely high, meaning that the long-term future of the River Glaven's native crayfish population is threatened.

The project group has investigated the feasibility of using a biocide, Pyblast, to eradicate the signals from the catchment entirely. Advice was sought from Stephanie Peay, one of the UK's leading crayfish experts. Unfortunately, the practical and financial problems were thought too high. The ponds are relatively easy to treat but 2km of stream much more difficult. In addition, the stream then enters a lake and, although no signals have been detected yet, it is highly likely there is a low density population present. Treating the lake adds considerably to the cost. Finally, landowners are unwilling to give permission. Other control options were considered (electric shock, sterile males, altering pH, trapping, fish stocking), but none thought viable.

At the moment the main actions will be to slow the movement of signals towards the natives. The pond and lake outflows will be modified to try and prevent crayfish from being able to move downstream through the water. In the future, similar measures may be considered in the Glaven to stop upstream migration.

In addition, we are still seeking landowner permission to use Pyblast on the main population in the ponds. It is thought this will knock the population back to a low level for around five years, so reducing migration from the ponds. Fish stocking may be used after treatment in order to further slow the population recovery.