

White-clawed Crayfish



White-clawed Crayfish habitat:
(Photograph by Brian Morland)

Introduction

The White-clawed Crayfish is the only native freshwater crayfish in Britain. It has declined throughout Western Europe, including Britain and is a UK BAP priority species. It likes clean rivers with plenty of stones and roots etc, within which it can shelter.

The White-clawed Crayfish has considerable protection including protection under:

- Annexes 2 and 5 of the EC Habitats Directive.
- Appendix 3 of the Bern Convention (Conservation of European Wildlife and Natural Habitats).
- Schedule 5 of the Wildlife and Countryside Act 1981.
- Live Fish (England and Wales) Act 1980.

Our objective for White-clawed Crayfish is:

To contribute to the UK BAP by sustaining a stable White-clawed Crayfish population in the Scarborough area.

Links to Habitat Action Plans and Guidance Notes.

Priority habitats associated with White-clawed Crayfish:

Rivers and Streams

Action Plans have been prepared for those in bold.

Furthermore, a licence is required to keep non-native crayfish under the Prohibition of Keeping of Live Fish (Crayfish) Order 1996, and :

It is an offence to release or allow to escape, any of the non-native species (Schedule 9 of the W&CA).

It is an offence to use White-clawed Crayfish as fishing bait.

A licence is required to use a fixed engine trap or net, to catch any species of crayfish.

Numbers have declined nationally, particularly in the south. However, Britain is still thought to hold 24% of the world population. On a regional level there are important populations in both the Yorkshire Dales and North York Moors National Parks. The reasons for the decline involve the following.

Poor Water Quality

Pollution is the greatest immediate threat to White-clawed Crayfish populations. The species is susceptible to sewage and pesticides, particularly those which lower the oxygen concentrations in water. This can include discharges from treatment works and runoff from roads, farms or urban areas.

Site Management

Stream bed management can result in loss of habitat and reduction in habitat quality, and high sediment loads from soil erosion throughout a river catchment can clog the river bed making it unsuitable for the crayfish.

Crayfish Plague and Crayfish Farming

Crayfish plague is a serious factor in the national decline of the White-clawed Crayfish. It is unknown at present if the Scarborough populations are affected by Crayfish Plague. Crayfish Plague is a disease caused by a fungus *Aphanomyces astaci*. This is transmitted by the North American Signal Crayfish, introduced for commercial farming from the late 1970s. It is fatal to the native species, decimating whole populations within weeks.

Non-native Species

Escaped or deliberate release of Signal Crayfish and four introduced non-native species (Narrow-Clawed Crayfish, Noble Crayfish, Spiny-Cheeked Crayfish and Red Swamp Crayfish) into the wild is a major threat which, aside from the obvious threat of the plague, generally contributes to the displacement of native species.

The situation with reference to Scarborough Borough is currently unclear and needs to be established. However, for any such population to flourish the following is required:

- Ideal habitat requirements are for clear, alkaline, well-oxygenated water, in flowing and standing water.
- Crevices, gaps between stones, logs, aquatic plants and submerged tree roots provide cover and should be retained.

- In catchments that have important populations of White-clawed Crayfish, angling clubs should only stock fish from source that are free of non-native crayfish.
- Riparian habitat improvements such as the controlling of stock access to the bank, to reduce sediment input.
- Water quality to be improved or maintained through Environment Agency (EA) initiatives.

Status and Distribution

The White-clawed Crayfish occurs throughout England and was formerly particularly extensive in the Yorkshire Dales National Park.

Within Scarborough District, no comprehensive information is available but surveys have indicated that the main populations are found in the River Derwent, with a smaller population in the Scalby Beck. The River Derwent is thought to be one of the main rivers in Northern England for White-clawed Crayfish. The River Hertford is unlikely to be of any interest in its present condition but other tributaries of the Derwent, such as the Brompton Beck, need to be assessed either for the presence of or its suitability for, the introduction of crayfish. Some larger ponds may also be of interest and also need to be investigated.

Threats

A key issue affecting this species is the impact upon it from a fungal disease called Crayfish Plague, which is carried by the invasive American Signal Crayfish. This larger species was introduced to the UK as a food item, but has escaped or been released into river catchments, enabling it to spread (usually downstream of release points). Crayfish Plague has wiped out whole populations of White-clawed Crayfish in some Yorkshire locations. Further, even in the absence of crayfish plague the smaller White-clawed Crayfish is displaced by interspecific competition. Further threats include water pollution and siltation. The latter interferes with the animal's preference for clear water. Intensive river works can cause siltation and seriously disturb crayfish habitat.

The main threats are still much the same as they were when population declines were first reported. That is poor water quality and occasional pollution events and the spread of the Signal Crayfish and Crayfish Plague. The quality of many streams is improving and is continuing to be

improved. This can only be to the benefit not only of Crayfish but to all other aquatic wildlife. The threat from Signal Crayfish is though still a major problem requiring extreme vigilance to ensure that any spread of the non-native species is quickly contained.

Other threats come from poor or inappropriate river management for angling and drainage.

Current Action

- The UK BAP has a target to research the feasibility of eradicating Signal Crayfish. An Environment Agency booklet is available with reference to the species involved.
- EA undertake survey work.
- A licence is required for keeping Signal Crayfish.
- Yorkshire Water Services Ltd is improving sewerage discharges and have developed plans for other agencies to help to reduce pollution.



White-clawed Crayfish:
(Photograph by Whitfield Benson)

What you can do to help:

If you are an angler, you can take measures to ensure that Crayfish Plague is not transferred on wet gear.

Report sightings to the NEYEDC.

Avoid stocking or introducing Signal or other crayfish into local waters. They can move long distances overland.