

Freshwater White-clawed Crayfish (*Austropotamobius pallipes*)



Freshwater white-clawed crayfish
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This is the only UK native crayfish. It is distinguishable from other crayfish species by its claws, which are paler in colour than the rest of its body.

This species was formerly widespread throughout western Europe but it has declined in many countries to the extent that it is considered to be 'globally threatened' by the IUCN ⁽¹⁾. Since the 1970s many populations have been lost in England following the commercial introduction of non-native crayfish including the north American signal crayfish.

American crayfish species can be carriers of the so-called 'crayfish plague' - a disease caused by a fungus (*Aphanomyces astaci*). The 'plague' does the American crayfish little apparent harm but is lethal to European species such as the white-clawed crayfish.

Breeding populations of the signal crayfish and two other non-native species have become established in the wild in the UK and, as well as threatening the white-clawed crayfish with plague, compete with it for food and habitat.

Main Habitat(s): Relatively hard, clean, alkaline waters, either still or flowing.

National status

The white-clawed crayfish is a Priority Species in the UK BAP. It is protected under Schedule 5 of the Wildlife and Countryside Act 1981 in respect of taking from the wild and sale. Schedule 9 of the same act makes it an offence to release or allow to escape into the wild three species of non-native crayfish.

Regional status

White-clawed crayfish are abundant in Cumbria in the rivers Kent, Eden and the Windermere system. Numbers and populations in here appear to be stable. The Ribble was also a stronghold, until an outbreak of crayfish plague in late summer 2000. There are a few records from Cheshire.

Local status

The only recorded population in Lancashire is in Swanside Beck near Clitheroe. This population may prove to be isolated from the Ribble, and, provided it survives, could be vital in restoring the species to the main river after the plague has run its course.

Current factors affecting the species

The spores of the fungus that causes 'Crayfish Plague' are usually transmitted to the white-clawed species via non-native crayfish and, therefore, it is important to safeguard against the introduction, accidental or otherwise, of other crayfish species in the vicinity of white-clawed populations.

However, it is also possible for infection to occur due to contact with spore-bearing water, fish or damp equipment. Co-operation by anglers and all river users is important, therefore, to ensure that the disease is not spread.

To prevent the spread of crayfish plague it is necessary to ensure that all items of clothing or equipment that have come into contact with water in infected catchments are thoroughly dried before further use. Alternatively, they should be treated with a proprietary disinfectant and then rinsed before being used again.

White-clawed crayfish are known to be sensitive to water pollution, particularly by pesticides and organic pollution/enrichment. For instance, the population in the Ribble was severely damaged for about 15 km by a single sheep dip pollution incident in 1995.

The maintenance of suitable habitat is also important for the conservation of this species. In some river systems populations of white-clawed crayfish have been lost following engineering works that have altered their habitat.

Current Action/Mechanisms

There is a national SAP for this species ⁽¹⁾ and a more detailed action plan was produced in 1994 by JNCC ⁽²⁾.

The Environment Agency has produced a booklet ⁽³⁾ aimed at explaining the conservation issues to the public and containing a guide to recognising the different species of crayfish occurring in the UK.

In addition to provisions in the Wildlife and Countryside Act other legislation to protect this species is to be found in the Prohibition of Keeping of Live Fish (Crayfish) Order 1996. This is intended to protect native crayfish populations by preventing the spread of non-native species. The whole of North West England is an area where signal crayfish may only be kept under licence from MAFF.

Following the outbreak of plague in the Ribble, Environment Agency staff removed over 450 uninfected crayfish from the river in North Yorkshire and established two captive populations. The crayfish will be returned to the Ribble once it is confirmed that the outbreak has run its course.

There are no plans to conduct a similar rescue operation in Swanside Beck in case the plague is accidentally introduced to this population.

Swanside Beck is currently managed as a trial site under MAFF's Habitat Scheme (Water Fringe Areas). While this is aimed at its role as a salmonid nursery stream, the Environment Agency believes that this will also meet the requirements of the crayfish.

The objective of the Habitat Scheme is to enhance the wildlife value of waterside habitats and watercourses. The Scheme, however, is now closed to new applicants. While the Habitat Scheme will continue on existing agreements, Countryside Stewardship is the main mechanism for future riparian protection.

Countryside Stewardship can target water fringe areas through pasture options, arable reversion and field margins. Adherence to the Code of Good Agricultural Practice for the Protection of Water is enforced in agri-environment schemes.

Objectives, targets and proposed actions for freshwater white-clawed crayfish in Lancashire

Broad Objective:	A. Maintain a viable population of white-clawed crayfish at the existing site in Swanside Beck			
Operational Objective	Action Required (Priority)	Partners	Time-scale	Type
1. Co-ordinate action in Lancashire with rest of the Ribble catchment.	1. Develop links with relevant BAP group in Yorkshire. (High)	EA	O	A
2. Establish system to monitor white-clawed crayfish population at Swanside Beck	1. Survey population in 2002 (High).	EA	S	RM
	2. Repeat survey on annual basis from 2002 onwards (High).	EA	O	RM
3. Continue to promote river and riparian habitat management that benefits crayfish at Swanside Beck.	1. Maintain Swanside Beck as site managed under MAFF Habitats Scheme (High).	MAFF, EA	O	LM
	2. Maintain Water Quality Objective set in Ribble LEAP (Medium).	EA, Land-owners	O	LM
4. Raise awareness among all river users of the species, its vulnerability to crayfish Plague and the risk of its being transmitted unwittingly.	1. Distribute EA crayfish booklet to relevant fishing clubs in the area (Medium).	EA, Fishing Clubs	M	PR
	2. Get articles in local EA and fishing club newsletters to promote messages about crayfish conservation. (Medium)	EA, Fishing Clubs	M	PR

	3. Brief relevant staff (e.g. Source to Sea, Ribble RVI staff) on crayfish conservation issues (Medium).	EA, Source to Sea RVI	M	A
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Related Action Plans:

- Rivers and streams HAP

References & additional reading:

1. HMSO (1995) Biodiversity: The UK Steering Group Report. Volume 2: Action Plans. White Clawed Crayfish Species Action Plan pp.157-8
2. JNCC (1994) Action Plan for white-clawed crayfish.
3. Environment Agency (1996) Freshwater Crayfish in Britain and Ireland.
4. Lang, M. & Wylde, A. (2000) Some observations on surveying Native and Signal Crayfish. British Wildlife. 11, 6, pp. 398 -400.

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