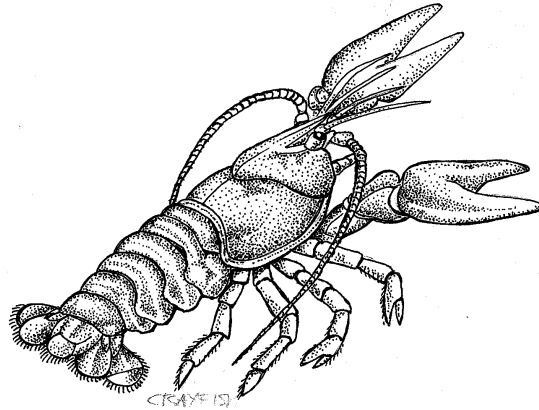


White clawed Crayfish (*Austropotamobius pallipes*)



1 Definition

The White-clawed Crayfish is the only native species of freshwater crayfish in the UK. It occurs only in clean calcareous streams, rivers and lakes. It prefers clear, well-oxygenated water and locations without too much fine sediment. Crevices and rocks, gaps between stones, submerged plants and tree roots are important for its survival.

The White-clawed Crayfish tends to be nocturnal and is omnivorous, feeding on a wide variety of vegetable and animal matter as well as detritus. It is eaten by many types of fish (for example perch, trout, chub, pike and eel) as well as birds, rats, mink and otters. Carnivorous insect larvae and nymphs such as beetles and dragonflies eat young crayfish. As with most crayfish species it is cannibalistic, particularly on recently moulted individuals.

Breeding usually occurs in the autumn and the female produces her eggs (rarely more than 100), which become attached in a cluster to the underside of her abdomen. She overwinters with her brood and in late spring to early summer the eggs hatch into relatively immobile miniature crayfish without a tailfan, which cling to her abdomen. They then moult to form a second stage, with a rounded hairy tailfan. This stage becomes more and more active, and they eventually leave their mother in early summer to become independent.

At the next moult they develop a typical crayfish form with an outspread tailfan. During their first full year such juveniles may undergo seven or more moults, but by the time they mature, after three to four years, they may moult only once a year. Average adults lifespan is estimated to be between 7 and 12 years. The timing of the lifecycle varies with latitude and altitude and females from colder areas may not release their juveniles until late summer.

Adult males have larger claws than females and they are more territorial, particularly in the mating season. Females develop a broader abdomen which accommodates the brood. Males can be distinguished by the specialised first two pairs of appendages on the underside of the abdomen.

2 Current status

2.1 National

The White-clawed Crayfish is widespread in England and Wales and occurs in a few areas in Northern Ireland, but many populations have been lost since the 1970s. It is classed as globally threatened by IUCN.

2.2 Local

White-clawed Crayfish are currently present in Chad Brook and were also known from the River Stour until 1991.

3 Current factors affecting White-clawed Crayfish in Suffolk

- This species is vulnerable to modifications to the management of rivers and changes in water quality.
- Native White-clawed Crayfish are out competed by non-native crayfish (Signal and Turkish) which are present in several rivers in Suffolk.
- Crayfish plague is present in the county and this affects the native species as well as the Turkish crayfish. The fungus *Aphanomyces astaci* causes crayfish plague. It infects only freshwater crayfish. North American species, such as the signal crayfish, can carry the fungus but seem to suffer no ill effects from it unless put under stress. All native European crayfish species are highly susceptible to the disease. The fungus causes a biochemical reaction (melanisation) in the exoskeleton resulting in brown patches, particularly on the underside of the abdomen and at the leg joints.

4 Current Action

4.1 Legal Status

- White clawed crayfish are listed on Schedule 5 of the Wildlife & Countryside Act 1981, which makes it illegal either to take it from the wild or sell it without a licence from the appropriate nature conservation agency. Equivalent protection is proposed for Northern Ireland.
- White clawed crayfish is also included in the IUCN Red Data List, Appendix III of the Bern Convention and Annexes II and V of the European Habitats Directive.
- Defra has set up no-go areas for crayfish farming and also issued guidance.

4.2 Management, research and guidance

The Environment Agency has undertaken surveys for native and non-native crayfish species in all the Suffolk rivers. This is to establish information of the distribution of the three species found in Suffolk.

Trapping of Signal Crayfish is undertaken at Wixoe pumping station. Trapping is for two purposes, firstly to try and stop the signal crayfish being transferred to the River Pant in Essex with the public water supply and also to try and reduce the spread of the Signal Crayfish along the River Stour.

The Environment Agency has produced a leaflet titled 'Freshwater Crayfish in Britain and Ireland'. This is to raise the profile of the species and the importance of our native variety. It is also hoped that the publicity will result in more information being gained about the crayfish plague. The Environment Agency holds reports of the plague.

To prevent the spread of the crayfish plague it is necessary to eliminate the means by which it is spread. It is particularly important to realise how virulent crayfish plague is. Equipment such as nets, traps and waders used in waters where there are known to be non-native crayfish, or where a native White-clawed Crayfish mortality has occurred, should be left to dry out thoroughly. They should be treated with a proprietary disinfectant (and rinsed) before further use. There is at present no means of eliminating crayfish plague once it is established, or of eradicating Signal Crayfish, which is the principal host of the fungus.

5 Action Plan Objectives and Targets

- 1 *Maintain the present distribution of this species in Suffolk*
- 2 *Limit the spread of non-native species*
- 3 *Maintain and enhance appropriate habitat conditions*
- 4 *Investigate potential for translocation of White-clawed Crayfish into other suitable watercourses in Suffolk*

6 White-clawed crayfish: Proposed Action with Lead Agencies

Action	Date	Partners
POLICY AND LEGISLATION		
Where crayfish farms are proposed, the full impact should be assessed and advice given to Defra, using Section 14 of Wildlife and Countryside Act (1981).	2004 2005 2006 2007	EN, EA, SWT, Defra
The use of bye-laws to control baiting with crayfish by anglers should be in line with national proposals.	2004	EA
Ensure that development schemes in Suffolk do not affect the integrity of the populations of White-clawed Crayfish.	2004 2005 2006 2007	SCC, Babergh DC, EN, SWT, EA
SITE SAFEGUARD AND MANAGEMENT		
Investigate possibility of Chad Brook for designation as SSSI for the White-clawed Crayfish.	2006	EN, SWT, EA
Continue sensitive management of Chad brook.	2004 2005 2006 2007	EA
SPECIES MANAGEMENT AND PROTECTION		
Undertake eradication programmes for non-native species and monitor success.	2004 2005 2006 2007	EA, Essex & Suffolk Water
If feasible, investigate re-introduction programmes at selected sites.	2006 2007	EA, EN
Licences should not be issued for release of non-natives where there are inadequate precautions to prevent escapes into no-go areas.	2004 2005 2006 2007	Defra, EN, EA

RESEARCH AND MONITORING		
Monitor known populations and survey sites to establish density and extent of population. Forward information to National databases including Nottingham University and Suffolk Biological Records Centre.	2004	EA, EN, JNCC,
Any suspected outbreaks of plague should be investigated and monitored.	2004 2005 2006 2007	EA
ADVISORY		
Provide advice to those involved in conservation of native crayfish and management of non-native crayfish. Disseminate management leaflet.	2004 2005 2006 2007	EA, Defra, EN
Provide advice on disinfection procedures to prevent transmission of plague for any development proposals or scheme within the river catchments where white clawed crayfish are present.	2004 2005 2006 2007	EA
COMMUNICATIONS AND PUBLICITY		
Disseminate information through at least 1 press release a year and distribute of leaflets. Target angling clubs about use of bait and crayfish plague.	2004	EA
Ensure landowners on and around Chad brook are aware of habitat requirements of White-clawed Crayfish.	2004	EA, EN, SWT, FWAG, DVSVP