# White-Clawed Crayfish
# Guidance for Land Managers

## White-clawed crayfish

White-clawed crayfish are the only native species of freshwater crayfish in England and have suffered a rapid population decline since the 1970s. North Yorkshire is a stronghold for the endangered white-clawed crayfish, and it is therefore important to protect the remaining populations we have.

ALEXANDER MUSTARD/ 2020VISION

**Legislation:** White-clawed crayfish are protected under Schedule 5 of the Wildlife and Countryside Act (1981) meaning it is illegal to harm, disturb and take (including picking up or handling) this species. Schedule 9 of the Act makes it an offence to release, or allow to escape into the wild, all non-native species of crayfish in England.

## Invasive crayfish

Invasive non-native crayfish (including signal crayfish) can carry crayfish plague, a type of water mould, which is deadly to white-clawed crayfish. Obvious signs of plague include large numbers of dead white-clawed crayfish in the watercourse and on banksides, and individuals appearing active during the daytime. If you see any signs of crayfish plague contact the Environment Agency incident hotline immediately (0800 80 70 60).

**Myth buster:** Trapping signal crayfish to try and eradicate them from the watercourse does **NOT** work and can even lead to a population boom.

LINDA PITKIN/ 2020VISION

Signal crayfish are the most wide-spread invasive crayfish species in England.

As well as impacting native crayfish, they also have a negative effect on the river ecosystem. Heavy burrowing in banksides can lead to bank de-stabilisation and collapse, depositing sediment into the watercourse. These invaders are also causing the decline of other native freshwater species, including many fish by competing for food and eating their eggs.

Yorkshire Wildlife Trust

YorkshireWater

# Managing Your Land for Native Crayfish

Managing your land for white-clawed crayfish and other wildlife can improve agricultural productivity and provide ecosystem stability in the face of environmental change.

## Increase habitat quality

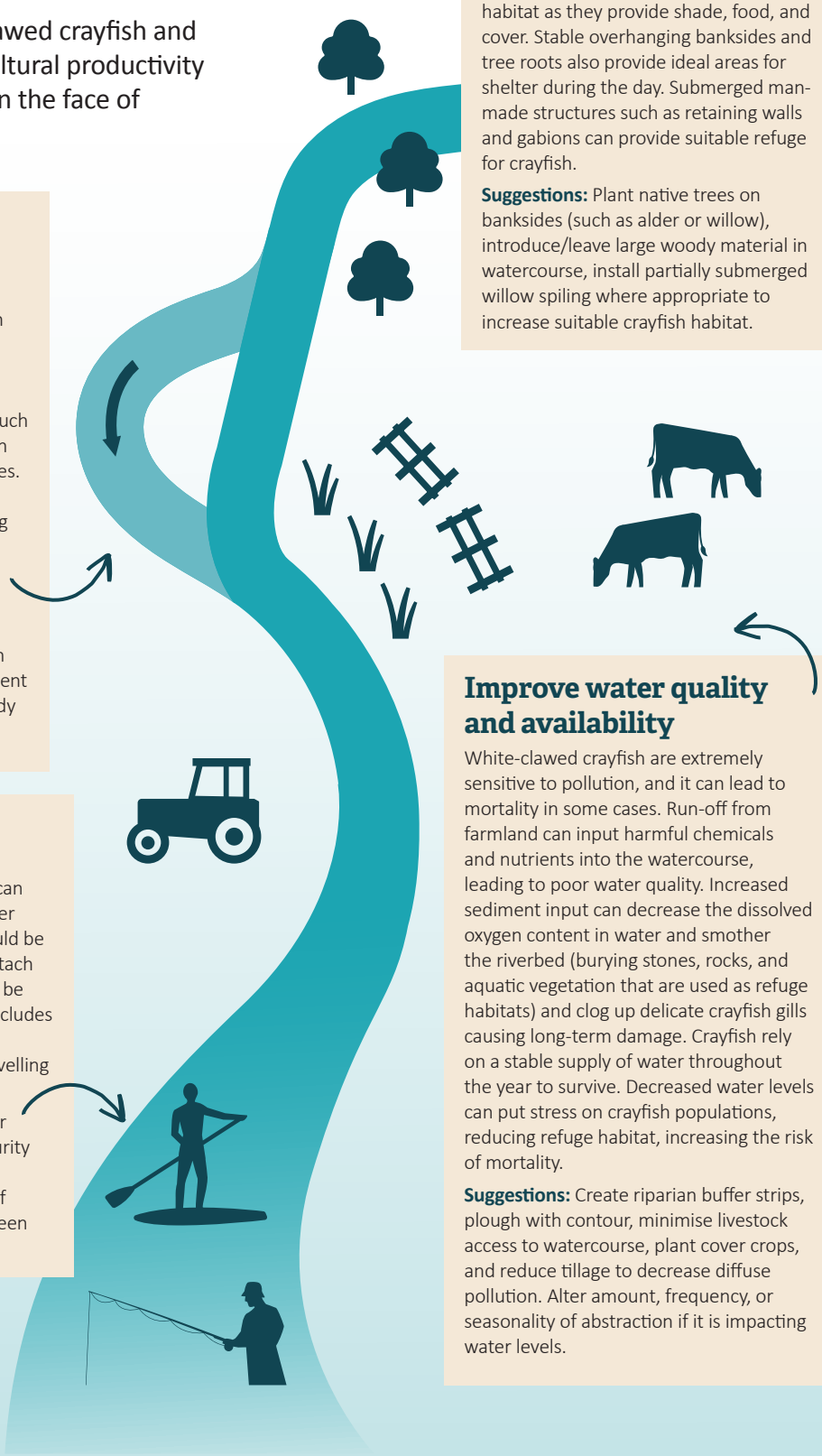
Increasing the amount of suitable habitat for crayfish will help support crayfish populations. Bankside vegetation and tree cover are an important part of crayfish habitat as they provide shade, food, and cover. Stable overhanging banksides and tree roots also provide ideal areas for shelter during the day. Submerged man-made structures such as retaining walls and gabions can provide suitable refuge for crayfish.

**Suggestions:** Plant native trees on banksides (such as alder or willow), introduce/leave large woody material in watercourse, install partially submerged willow spiling where appropriate to increase suitable crayfish habitat.

## Rectify physical modifications

Human modifications to rivers such as widening, lowering, and straightening can increase silt entering the watercourse, decreasing the suitability for crayfish. Crayfish are reliant on in-river vegetation and debris for cover and food, practices such as dredging will have a negative impact on crayfish habitat by removing these features. Fords can discharge sediment and other pollutants directly into streams, increasing the risk of disease transfer and pollution entering the watercourse.

**Suggestions:** Restore original features where possible (consultation from a geomorphologist is recommended and an environmental permit from the Environment Agency may be required). Introduce woody debris to replace lost refuge habitat.



## Improve water quality and availability

White-clawed crayfish are extremely sensitive to pollution, and it can lead to mortality in some cases. Run-off from farmland can input harmful chemicals and nutrients into the watercourse, leading to poor water quality. Increased sediment input can decrease the dissolved oxygen content in water and smother the riverbed (burying stones, rocks, and aquatic vegetation that are used as refuge habitats) and clog up delicate crayfish gills causing long-term damage. Crayfish rely on a stable supply of water throughout the year to survive. Decreased water levels can put stress on crayfish populations, reducing refuge habitat, increasing the risk of mortality.

**Suggestions:** Create riparian buffer strips, plough with contour, minimise livestock access to watercourse, plant cover crops, and reduce tillage to decrease diffuse pollution. Alter amount, frequency, or seasonality of abstraction if it is impacting water levels.

## Prevent spread of disease

Human activity in and near water, such as angling, wild swimming, and water sports, can accidentally spread crayfish plague and other Invasive Non-Native Species (INNS) that could be harmful to your land. Disease spores can attach to equipment and clothing, which can then be carried to another watercourse. This also includes the use of farm machinery and equipment, which are especially high risk if they are travelling between sites and water catchments.

**Suggestions**: Ensure you, recreational water users and contractors follow simple biosecurity procedures such as 'Check, Clean, Dry' on your land, to help stop the transportation of invasive plants, animals, and diseases between watercourses.


Nonnativespecies.org/checkcleandry

## Where can I find more information:

- **White-clawed crayfish** – Visit www.gov.uk/guidance/white-clawed-crayfish-advice-for-making-planning-decisions
- **Biosecurity** – Visit www.nonnativespecies.org/biosecurity
- **Signal crayfish** – Visit www.nonnativespecies.org/non-native-species/information-portal/view/2498
- **Report crayfish sightings** – Visit www.irecord.org.uk/enter-casual-record