White-clawed Crayfish (Austropotamobius pallipes)





The White-clawed crayfish is the UK's only native species of crayfish and is one of our largest freshwater invertebrates. It is a key species of freshwater habitats and an indicator of high water quality. Over the past thirty years, the White-clawed crayfish has become increasingly rare as a result of habitat degradation and the introduction of non-native crayfish species, such as the Signal crayfish (*Pacifastacus leniusculus*). The White-clawed crayfish is recognised as 'Endangered' by the International Union of Conservation of Nature and is on the Government's section 41 priority species list.

Life cycle

Crayfish are mostly nocturnal and are more active and visible during the spring and summer. They mature after 3-4 years and can live up to 12 years. Adults moult and re-grow their hard outer carapace every two years and can grow up to 15cm in length.

Distribution map

White-clawed crayfish are found in scattered locations across England and Wales, but are

Crayfish are heavily reliant on submerged shelters, such as bricks with holes

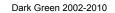
almost entirely absent from Scotland. About 70% of the UK population has been lost since the 1970s and this decline continues almost everywhere. The UK distribution of native and non-native crayfish species between 1990 and 2010 has changed significantly due to the continuing spread of non-native species.

Habitat

White-clawed crayfish require water bodies to be alkaline, calcium-rich, clean and well oxygenated. They usually occur in limestone/chalk areas with little sediment. They favour shallow waters, including streams and rivers which have stones and over-hanging vegetation where they can hide from predators and keep cool. Submerged tree roots and rock crevices are particularly favoured. They can also be found in deeper lakes and ponds.

Reasons for decline

Pollution, habitat loss and introduction of non-native crayfish have been important factors in the decline of the White-clawed crayfish. The introduction of non-native species, such as the





Examples of White-clawed Crayfish habitat on a gravel pit (left) and Kemerton Lakes, Worcestershire (right).

Signal crayfish, has led to White-clawed crayfish being aggressively out-competed for food and habitat. Invasive species also carry diseases including crayfish plague, a fungal infection that is lethal to White-clawed crayfish.

Habitat management

Measures to help conserve crayfish populations include:

- Cleaning and disinfecting waterproof clothing, fishing tackle and water-sports equipment, to prevent the spread of non-native aquatic species and diseases they may carry
- Maintaining high water via good catchment management e.g. use buffer strips, restricting cattle access etc.
- Creating in-water refuges, by placing cobbles, boulders, bricks, breeze blocks or hessian sacks on river banks and margins. Please ensure you seek advice from the Environment Agency before undertaking this work
- Habitat creation, by planting trees such as Alder and willows along riverbanks to produce shaded areas and exposed root systems for crayfish to colonise

Environmental Stewardship options

HLS options

HB14 - Management of ditches of very high environmental value

HJ6 - Preventing erosion or run-off from intensively managed, improved grassland

HL15 - Seasonal livestock exclusion supplement

HQ2 - Maintenance of ponds of high wildlife value (more than 100m³)

HR4 - Supplement for control of invasive plant species
HR7 - Supplement for difficult sites
OEH9-10 - 6 m buffer strips on rotational / organic land next to a watercourse
OHJ5 - In-field grass areas to prevent erosion and run-off

OJH9 - 12 m buffer strips for watercourses on rotational land **OJH11** - Maintenance of watercourse fencing

HLS capital items

FPE - Permanent electric fencing **CDB** - Cattle drinking bay

ELS options

EB6-7 - Ditch / half ditch management
EB89-10 - Combined hedge and ditch management
(incorporating EB1-2, 3)
EE9-10 - 6 m buffer strips on cultivated / intensive land next
to a watercourse
EJ11 - Maintenance of watercourse fencing

References and further information

This sheet and the 'Ark sites for Crayfish' factsheet can also be accessed at www.buglife.org.uk

Holdich, D., Sibley, P. & Peay, S. (2004) The White-clawed Crayfish – a decade on. British Wildlife 15(3): 153-164.

Peay, S. (2003) Guidance on Habitat for White-clawed Crayfish. R&D Technical Report W1-067/TR. Environment Agency, Bristol.

Whitehouse, A.T., Peay, S. & Kindemba, V. (2009) Ark sites for White-clawed crayfish – guidance for the aggregates industry. Buglife - The Invertebrate Conservation Trust, Peterborough. Can be accessed at www.buglife.org.uk

Buglife have also been working with the Environment Agency on UK Crayfish Website (www.crayfish.org.uk). This is a hub for crayfish information for both professionals and members of the public alike.

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