



TREND IN THE PEAK DISTRICT:

Major losses in the last 2 decades

ESTIMATED POPULATION IN THE PEAK DISTRICT:

Confirmed presence in only 2 sites in the White Peak in 1997; present at one and possibly a second site on the South West Peak/Dark Peak boundary west of Chapel-en-le-Frith, and possibly also in a number of small streams in the west of the South West Peak Natural Area.

NATIONAL BAP STATUS:

Priority species

ASSOCIATED PEAK DISTRICT ACTION PLANS:

Habitats: River Corridor Habitats.

Species: Water vole.

INTRODUCTION

The white-clawed crayfish is the only species of freshwater crayfish which is native to the UK. Nationally it is widespread in clean streams, rivers and lakes in England and Wales, particularly in calcareous water. In the Peak District it occurs in the White Peak where, until recently, it was common. It occurs less widely in the Dark Peak and South West Peak where populations may be restricted by environmental parameters such as calcium content. It has probably been under-recorded as it tends to be active at night and spends much of the time hiding under stones. It is not often found unless searched for.

The white-clawed crayfish has suffered a serious decline in recent years and is subject to several major threats. Nationally, many populations have been lost since the 1970s, and an overall decline of 25 % has been estimated for the last 25 years. In the Peak District, the decline has been very noticeable in the White Peak, where it has been lost from a number of rivers including the Lathkill and Bradford and is confirmed at only two sites in the Rivers Dove and Manifold since 1997. Close to the South West/Dark Peak Natural Area boundary a thriving population exists in the Wash Brook near Chapel Milton. Crayfish are also known from a site near Chinley although the species is unknown. Further south, white-clawed crayfish are also thought to occur in the tributaries of the River Dane. Population trends in these areas are unknown but a decline in range is suspected.

The conservation importance of the white-clawed crayfish is illustrated by its status. It is a priority species in the UK Biodiversity Action Plan, is listed in Annexes IIa and IVa of the European Union Habitats and Species Directive and is protected under Schedule 5 of the Wildlife & Countryside Act (1981) in respect of sale and taking from the wild. Locally, it is listed in the Derbyshire Red Data Book. It has no economic importance, though its survival is closely linked to signal crayfish, which have been introduced to the Peak District on crayfish farms and have subsequently escaped. It is one of a threesome of high profile river species (the other two, water vole and otter, admittedly being somewhat more cuddly) whose conservation is easy to sell to the public, if not necessarily to land managers.

ADVERSE IMPACTS	Historic	Current
River Management		
Habitat modification and inappropriate river management (dredging, fishery management, unsuitable management of bankside and aquatic vegetation).	✓	✓✓
Low water flows as a result of water loss to mineshafts and soughs, ground and surface water abstraction and climate change.	✓	✓✓
Winter floods with associated problems of habitat modification as a result of sedimentation and siltation.	✓	✓
Connection of otherwise unconnected signal crayfish and white-clawed crayfish populations at times of flood.	✓	✓✓
Disease		
Crayfish plague (which can be transmitted by contaminated water or equipment, by fish or by the introduced crayfish species).	✓	✓✓
Invasive Species		
Release or escape of non-native crayfish into water-courses. These directly compete for food and habitat, and may kill white-clawed crayfish.	✓	✓✓
Pollution		
Pollution (particularly by pesticides, including sheep dip, and sewage).	✓	✓

An impact ✓ *Significant impact* ✓✓

CURRENT ACTION

Designated Sites

- White-clawed crayfish are included as a reason for notification of the Peak District Dales cSAC.

New Initiatives

- The White Peak Crayfish Action Group was formed in 1999 as a forum for discussion and action regarding crayfish conservation in the White Peak.
- The Signal Crayfish Initiative on the River Hamps has included weekends in both 1999 and 2000 when volunteers have removed signal crayfish from a stretch of the river using a combination of both trapping and stone turning.
- The EA (North West Region) are currently collecting information about crayfish populations in the Chinley area.

Sites Owned and Managed by Conservation Organisations

- The existing known White Peak white-clawed crayfish sites in the Rivers Dove and Manifold are owned by the National Trust.
- Management for white-clawed crayfish on the River Dove has been agreed between all the relevant agencies and land managers.

Research and Survey

- MAFF holds a registry of crayfish farms and monitors outbreaks of crayfish plague.
- There is a national research and development project on the control of signal crayfish.
- In 1999 the Buxton area and the Dove & Manifold tributaries were surveyed for signal crayfish.
- Signal crayfish in the Buxton area have been assessed for plague.
- Survey of the Bentley Brook (a tributary of the River Dove) for signal crayfish was carried out in March 2000, with a view to a possible control operation similar to that carried out on the River Hamps.
- A trial white-clawed crayfish breeding programme has been initiated on the River Lathkill with a view to larger scale introductions in subsequent years. This is part of the English Nature/Environment Agency 'Safeguarding Natura 2000 Rivers in the UK' project aimed at developing practical techniques to expand the range of white-clawed crayfish where suitable habitat is available, and is being carried out in partnership with Haddon Estates.

Awareness-raising

- A variety of awareness raising media have been used to publicise the issues of crayfish conservation, many initiated by the Environment Agency.

ACTION PLAN OBJECTIVES AND TARGETS

National Targets

- Attempt to maintain the present distribution by limiting the spread of crayfish plague, limiting the spread of non-native crayfish, and by maintaining appropriate habitat conditions.

A Vision for the Peak District

Historically children searched for white-clawed crayfish under stones and in crevices in stream and river banks. This is now an activity of the past, with the white-clawed crayfish a species tottering on the brink of survival within the Peak District. If we are to keep it as a constituent part of our biodiversity then urgent action is needed to both safeguard existing populations and allow for expansion in the range and numbers of the species. Although much of its demise may be due to crayfish plague and the spread of non-native crayfish, it is also very sensitive to water quality and habitat modification. Loss of this species from Peak District rivers and streams would be a sad reflection on our management of this crucial habitat.

OBJECTIVES AND TARGETS

Objective 1

Safeguard the existing populations of white-clawed crayfish.

Target

Ensure all known white-clawed crayfish sites are in favourable conservation management by 2005, with the aim of maintaining white-clawed crayfish numbers and distribution and also habitat and water quality.

Objective 2

Extend the range and numbers of existing populations of white-clawed crayfish.

Targets

Identify the opportunities for range extension by 2005 .

By 2010 achieve an increase in the length of river with optimal habitat/water quality/quantity in areas likely to be colonised by known populations (the length to be determined following the identification of opportunities.)

By 2010 achieve an increase in the range of white-clawed crayfish, dependent on the length of habitat identified by survey as being suitable following necessary works.

Objective 3

Create new colonies of white-clawed crayfish within their former known Peak District range.

Targets

Achieve a self-sustaining population in the area of the Rivers Lathkill and Bradford by 2005.

Investigate the possibilities for introductions in other suitable areas by 2005.

If investigations prove positive, introduce white-clawed crayfish to suitable areas by direct introduction by 2010, or by 2015 following necessary habitat/water quality/quantity modifications.

Main Factors Likely to Affect Achievement of Targets

Planning and Regulation

Planning and licensing policies.

Invasive Species

Difficulty in controlling signal populations.

Some landowners are protective of their signal crayfish.

Public attitude towards culling signal crayfish.

Practical Difficulties and Gaps in Knowledge

Surveys are difficult and not standardised and so are not always comparable.

Indirect means of transmission of plague are difficult to control.

Sourcing donor populations for re-introductions.

In-river obstructions preventing expansion of known white-clawed crayfish populations.

Pollution/Climate Change

Continuing risk of pollution events.

Climate change.

Others

Genetics of re-introduced populations.

Optimal habitat/water conditions conflicting with other river users.

ACTIONS

Key to the achievement of the proposed targets are the actions relating to:

- Establishing details of population size and range within the South West Peak Natural Area (Actions CF3 and CF4);
- The control of signal crayfish, which is deemed crucial to the survival of the native white-clawed crayfish (CF9- 13) ;
- The control of water quality and quantity within the relevant catchments (CF37 - 40 and CF44);
- The facilitation of expansion of populations into adjacent lengths of river (CF5, CF19 and CF28), and
- A re-introduction programme (CF6, CF7, CF19, CF29 and CF30).

ACTIONS		TIMESCALE	LEAD AGENCY & Partners
DATA COLLATION AND SURVEY			
Data Collation			
CF1	Collate existing information on white-clawed and signal crayfish. (Objectives 1, 2 and 3)	2001 onwards	EN/EA (joint lead) PDNPA/WTs/NT/LAs LRCs/Voluntary Sector
CF2	Compile a register of white-clawed and signal crayfish sites and initiate a system for regular up-dating. (Objective 1)	2001	EN/EA (joint lead)
Survey			
CF3	Establish the crayfish species present at Chinley. (Objective 1)	2001	EA
CF4	Survey tributaries of the River Dane for white-clawed crayfish. (Objective 1)	2002 - 2005	ABAPG/Universities
CF5	Carry out habitat and water quality and quantity surveys in reaches adjacent to known white-clawed crayfish populations. (Objective 2)	2002/2003 onwards	EA/EN
CF6	Carry out habitat and water quality and quantity surveys of potential sites for re-introductions. (Objective 3)	2002/2003	EA/EN
EVALUATING THE IMPORTANCE AND CONDITION OF SITES			
Evaluating Importance and Identifying Key Sites			
CF7	Identify potential refuges for white-clawed crayfish re-introductions that are 'signal proof'. (Objectives 1, 2 and 3)	2003 - 2005	EN/EA (joint leads)
RESEARCH			
CF8	Encourage further research into crayfish ecology at local universities through student projects. (Objectives 1, 2 and 3)	2001 onwards	WPCAG
INVASIVE SPECIES			
CF9	Continue to monitor the spread of signal crayfish where these threaten known populations or areas suitable for colonisation, using standardised techniques. (Objectives 1 and 2)	2001 onwards	NT (R. Hamps) EN/EA (joint leads at other sites)
CF10	Continue regular manual control programme of signals on the River Hamps using volunteers. (Objective 1)	2001 onwards	NT/WPCAG

CF11	Consider control of other signal populations where these threaten known white-clawed crayfish populations or areas suitable for colonisation, and initiate control measures if appropriate. (Objectives 1 and 2)	2001 onwards	WPCAG
CF12	Investigate bylaw enforcement through angling clubs and water bailiffs. Contact angling interests to ensure compliance with new bylaws banning the use of any crayfish as angling bait. (Objective 1)	2001 onwards	EA
CF13	Ensure that all fish used for re-stocking come from signal crayfish-free hatcheries. Negotiate with angling interests to ensure correct sourcing. (Objective 1)	2001 onwards	EA

MONITORING

CF14	Monitor known white-clawed crayfish populations using standard technique every 3 years. (Objective 1)	2001 onwards	EN(SSSI) EA(non SSSI)
CF15	Monitor water quality/quantity at known sites every 3 years. (Objective 1)	2001 onwards	EA
CF16	Monitor habitat structure of reaches with known populations every 3 years. (Objective 1)	2001 onwards	EN(SSSI) EA(non SSSI)
CF17	Undertake monitoring of main tributaries of River Dove for white-clawed crayfish. (Objective 2)	2001 onwards	EN/EA (joint lead)
CF18	Monitor presence/numbers of white-clawed crayfish in areas suitable for colonisation outside of the River Dove catchment every 3 years. (Objective 2)	2005/2006 onwards	EN

AWARENESS RAISING

CF19	Share information on white-clawed crayfish and their management needs with the landowners/managers of existing sites and sites suitable for range expansion or re-introductions, including feedback from surveys. (Objectives 2 and 3)	2001 onwards	EN/PDNPA/NT
CF20	Continue with an awareness raising strategy on white-clawed crayfish conservation targeted at the general public and at angling clubs, and through: *Local press releases and school packs *Making available interpretive information at key river access points. (Objective 1)	2001 onwards	EA
CF21	Encourage increased awareness of white-clawed crayfish and sharing of best conservation management practice amongst BACA, NAAC, NFU, MAFF, FWAG. (Objectives 1, 2 and 3)	2001 - 2002	EA/NAAC/BACA/NFU MAFF/FWAG
CF22	Increase awareness amongst riparian owners and angling clubs of the implications of using disease infected bait. (Objective 1)	2001 onwards	EA
CF23	Ensure that riparian landowners are aware of their legal responsibilities under the 1981 Wildlife & Countryside Act (as amended) with regard to the release of signal crayfish, and the associated penalties. (Objective 1)	2001 onwards	PDNPA/EN (joint leads)

CONSERVATION ACTION AND INCENTIVES

Designations

CF24	Implement obligations under European (Natura 2000) legislation with respect to review of the Peak District Dales cSAC. (Objective 1)	2001 onwards	EN
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CF25	Progress re-notification of the Dove Valley and Biggin Dale SSSI to include white-clawed crayfish as one of the criteria for notification. (Objective 1)	2002/2003	EN
CF26	Consider SSSI notification of other sites of known white-clawed crayfish populations. (Objective 1)	2002/2003	EN
CF27	Consider white-clawed crayfish sites in any programme of acquisition/lease/management of LNRs and NNRs. (Objectives 1 and 2)	2001 onwards	EN/LAs (joint leads) NT
Negotiation and Review of Agreements			
CF28	Facilitate the expansion of known populations into suitable reaches, negotiating with landowners and managers over the adjustment of water quality/quantity or habitat as necessary, and by securing appropriate agreements. (Objective 2)	2004/2005 onwards	PDNPA/EN/EA
Direct Action			
CF29	Continue with the Lathkill re-introduction programme. (Objective 3)	2001 onwards	EN
CF30	Introduce white-clawed crayfish to identified refugia. (Objective 3)	2005/2006	EN
CF31	Liaise with angling clubs to provide bleach disinfection facilities at key points on the River Dove and at other strategic locations. (Objective 1)	2001	NT
CF32	Consider restricting access to river fords in areas where crayfish plague is present. (Objective 1)	2001/2002	LAs
CF33	Sample known signal populations to determine whether any crayfish plague is present. (Objective 1)	2001/2002	EA
CF34	Following monitoring, take actions to adjust water quality/quantity of reaches with known populations if necessary. (Objective 1)	2001 onwards	EA
CF35	Following monitoring, take actions to adjust habitat structure of reaches with known populations if necessary. (Objective 1)	2001 onwards	EN(SSSI) EA(non SSSI)

REGULATION

Planning

CF36	Ensure all planning applications are adequately assessed in relation to their impact on white-clawed crayfish populations and habitat and that loss or damage is avoided. (Objectives 1 and 2)	2001 onwards	PDNPA/EN/WTs/LAs
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Pollution Control and Waste Management

CF37	Compile a register of all Groundwater Regulation applicants, sheep farms and mobile dipping contractors and where appropriate determine their location in sensitive catchment(s). (Objective 1)	2001	EA
CF38	Locate and map regular sheep dipping sites in the Dove river catchment using information from the register. (Objective 1)	2002/2003	EA/MAFF
CF39	Continue with a targeted programme of farm visits in the river Dove catchment to ensure Groundwater Regulation compliance and suitability of any dipping facilities. (Objective 1)	2001 onwards	EA/NFU/MAFF
CF40	Continue to use chemical and biological monitoring in specific watercourses at risk from sheep dip pollution. (Objective 1)	2001 onwards	EA

Licensing

CF41	Ensure all works which affect rivers and streams in areas important for white-clawed crayfish are assessed beforehand and licensed if appropriate. (Objective 1)	2001 onwards	EA/EN/DETR
CF42	Ensure populations of white-clawed crayfish are monitored before and after all works which affect rivers and streams with important populations. (Objective 1)	2001 onwards	EA/EN

Disease Control

CF43	Control use of potentially infected bait through bylaw enforcement. (Objective 1)	2001 onwards	EA
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Other Regulatory Mechanisms

CF44	Continue with the review of abstraction consents and licences in relation to rivers that fall within the Peak District Dales cSAC. (Objective 2)	2001 onwards	EA/EN
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RESOURCES

It is envisaged that the majority of the actions proposed will be carried out by the relevant organisations using current resources. These include:

- the EA's programme of water quality monitoring, coupled with their commitment to the reduction in water quality problems;
- the EA's review of water quantity with respect to the cSAC;
- the EA's regulation of sheep dip disposal;
- EN's programme of reviewing SSSI management and designation;
- EN's programme of work relating to crayfish conservation;
- EN's re-introduction project on the River Lathkill and the grant-aid through the 'Safeguarding Natura 2000 Rivers in the UK' project;
- the PDNPA's advisory service for landowners/managers;
- the NT's resource commitments for the conservation of white-clawed crayfish;
- volunteers, specifically with relation to the removal of signal crayfish;
- the commitment of the White Peak Crayfish Action Group.

Additional resources are likely to be required for:

- surveys of white-clawed crayfish populations, habitats and water quality and quantity (2002/2003 onwards);
- the re-introduction programme (2005/2006 onwards);
- monitoring signal crayfish populations and distribution (2001 onwards);
- the implementation of conservation measures with regard to signal crayfish (2001 onwards).