

RIVERS AND STREAMS HABITAT ACTION PLAN



Introduction



River Swale: North Yorkshire County Council

This habitat type covers any flowing water, including rivers, streams and ditches. Rivers are dynamic and two

sub-habitats are noteworthy. Both shingle beds and eroding river banks (which are dynamic) support a range of specialised invertebrates, including very rare beetles. Small streams and ditches are important, particularly as corridors for mobile species such as the otter and kingfisher. Rivers and their banks are both important.

A number of Priority Hambleton Species live in rivers or their floodplains. Specific actions are proposed to conserve them.

There is no appropriate UK Biodiversity Action Plan (BAP) for this habitat.

Status

National

This habitat is widespread across the UK, although there is a great variety of river types, depending upon the stage of the river and the underlying geology.

Regional

Rivers and streams are a characteristic habitat of the Vales of York and Mowbray Natural Area with a number of key rivers in the region.

Local

Four of Yorkshire's great rivers flow through the district of Hambleton. The Swale is completely in the district for a

portion of its length and the Tees, Ure and Ouse have one bank in the district for some of their length. The Swale and Ure are classed as 'near natural' rivers. Historically, the washlands of the rivers Ure and Swale were vast.

Key rivers:

- River Swale
- River Tees
- River Ure
- River Ouse
- River Wiske
- River Leven
- Cod Beck

Important Sub-habitats

- Shingle beds
- Eroding river banks

Hambleton Priority Species

- Otter (UK BAP)
- Water vole (UK BAP)
- Little ringed plover
- Tansy beetle
- White-clawed crayfish (UK BAP)
- Depressed river mussel (UK BAP)
- A stiletto fly, *Spiriverpa lanulata* (UK BAP)

Other Species

- Water crowfoot (*Ranunculus aquatilis*) (an aquatic plant)
- Salmon
- Sea lamprey (a fish)
- River lamprey (a fish)
- Grayling (a fish)
- Bullhead (a fish)
- Sand martin

Status of Priority Species

Otter - a UK BAP Priority and the subject of national and regional action plans. The decline of the otter has been halted and it is increasing in the district (see targets 1, 3, 4 and 7).



Water vole: Peter Waterton

Water vole: A UK BAP Priority Species that is declining sharply due to mink predation and loss of habitat. Water voles have a preference for treeless sites (see targets 1 and 8). Targets to be prepared on completion of target 8.

Little ringed plover: breeds on man-

made wetlands (see Lakes, ponds and associated wildlife action plan), but also on natural river shingle (see target 1).

Tansy beetle: An English Nature Species Recovery Project and a candidate species for red data book inclusion and UK BAP Priority at the next review. Restricted to York, Selby and just Hambleton. High likelihood of a re-introduction at Beningbrough on the River Ouse in the near future. Range contraction of the tansy beetle is currently being researched at the University of York (see targets 1 and 5).

White-clawed crayfish: A UK BAP Priority Species. This native crayfish has declined seriously due to crayfish plague, which is transmitted by the introduced and invasive American signal crayfish (targets to be prepared on completion of target 9).

Depressed river mussel: A UK BAP Priority Species which occurs in Hambleton. More information required on status, ecological requirements and threats (targets to be prepared on completion of target 10).

Spiriverpa lanulata (A stiletto fly):

This is a UK BAP Priority Species found on depositional stretches of rivers, where adults are associated with sand shoals built up at flood level and where

conditions are open. One male and one female recorded from the River Swale at Great Langton (SE291965) in 1997 (see targets 1 and 6).

Requirements

- High water quality.
- Adequate supply of water
- Appropriate management.
- Environmentally sensitive river engineering and flood bank schemes.
- Maintenance of a complex of river features, such as riffles, rapids, waterfalls, bays and sandbars.
- Ongoing monitoring of water quality by the Environment Agency.
- Good quality surrounding habitat benefiting those species which do not spend all their time in water, such as dragonflies.
- Minimal disturbance - especially needed by breeding birds.
- Protection from pollution and excessive nutrient input.
- Ongoing management, especially to control non-native invasive species.
- Islands of importance for populations of plants and invertebrates.
- The 'grassland fallow' option for Countryside Stewardship (CS) arable field margins which benefits the water vole.
- 600mm diameter dry culverts under roads which assist the passage of otters.
- 300mm wide ledges under bridges are valuable for otters.

Current Action

- Research and monitoring is undertaken by the Environment Agency.
- The following Hambleton District-Wide Local Plan policies are relevant:
 - i NCI: General nature conservation considerations,
 - ii NC2: Statutory Sites of Nature Conservation Interest,
 - iii NC4: Non-statutory sites of nature conservation interest,
 - iv NC5: Species protected by law,
 - v NC6: Semi-natural habitat protection and
 - vi NC7: Wildlife corridors.
- The Environment Agency produces water-level management plans.
- Operations such as water abstraction are licensed by the Environment Agency.
- Many rivers are managed by angling clubs in ways helpful to wildlife.

- Yorkshire Wildlife Trust run an otters and rivers project.
- The Environment Agency survey for water voles, fishes, the depressed river mussel and white-clawed crayfish.
- DEFRA enforce the Keeping of Wild Fish (Crayfish) Order, 1996.
- There is a national BAP for otter, water vole and white-clawed crayfish.
- The Environment Agency is the lead partner on the water vole BAP.
- The University of York is researching tansy beetle ecology.
- Protection under the Wildlife and Countryside Act.
- CS options can be used to buffer agricultural run-off from flowing water.
- Otter holts are a specific capital works option under CS. Holts made from logs are preferred to concrete ones.
- The establishment of riparian strips under CS, benefits otter and water vole.

Threats

To rivers and streams

- Pollution, which may be from agricultural, industrial or domestic sources.
- Water abstraction directly from rivers reduces flow rates.
- Water transfer schemes between catchments.
- Most watercourses have been affected by river engineering works. These lead to the loss of floodplain features such as oxbow lakes, large meanders and wetlands.
- Efficient drainage in the high catchment of river basins reduces their ability to retain water. The increased speed at which rainfall passes through the system leads to flash floods and extensive flooding at some downstream locations.
- Flood defence works.
- Damage or disturbance caused by recreational use, such as bank damage from the wash from boats and trampling of vegetation.
- Nutrient enrichment from agricultural fertilizer run off changes water chemistry.
- Upstream activities can affect rivers in Hambleton, such as high silt levels caused by soil erosion following forestry operations.
- River water crowfoot beds are at risk from alterations in river chemistry.
- Introduced plants and animals can create havoc to natural systems. Problems species include mink, American signal crayfish, Canadian pondweed, giant hogweed, Japanese knotweed and Himalayan balsam.
- A lack of data about the chemistry and the wildlife of rivers.
- Stocking of coarse fish into fisheries can affect the natural predator - prey balance in the lake.
- Conflict between anglers and fish eating animals, such as otter, goosander and grey heron, though not usually kingfisher.



Tansy beetle: Roger Key

- Inappropriate disturbance, including water sports, dogs and some human activities.

To priority species

- Rapid spread of introduced (non-native) mink, which predate water voles and white-clawed crayfish.
- Loss of bank habitat for water voles through engineering works, ditch clearance, etc.
- Overgrazing of margins affecting certain species such as the water vole.
- Road fatalities to otters forced to

cross roads where underpasses are not available.

- River pollution and siltation affects water voles, otters, fish, white-clawed crayfish, depressed river mussel and stonewort beds. Water quality of the River Wiske is too poor for white-clawed crayfish.
- Predation by otters, mink, birds and anglers, threatening fish.
- Fish diseases, introduced accidentally when stocking rivers.
- Physical barriers, the ability of fish to migrate upstream to spawning grounds.
- Crayfish plague that kills white-clawed crayfish.
- American signal crayfish, which compete for optimum habitat with the native, declining white-clawed crayfish.
- Flooding of sand martin nest holes.
- Predation of sand martin nests by stoats, weasels, brown rats and probably mink.
- Disturbance to breeding little ringed plover.

Other Possible Partners

- Angling clubs
- Environment Agency
- Internal Drainage Boards
- Lower Ure Conservation Trust
- National Trust
- Yorkshire Otters and Rivers Project
- Yorkshire Water Services Ltd.
- Yorkshire Wildlife Trust
- York University

Objective

Maintain and enhance the biological diversity of rivers and streams in Hambleton.

Targets

1. Bring five kilometres of riparian habitat into favourable management for one or more priority species.
2. Assess sites against Site of Interest for Nature Conservation (SINC) criteria for flowing water and ratify those that qualify.
3. Install ten artificial otter holts.
4. Five road and railway bridges to be equipped with ledges or underpasses to facilitate otter passage.
5. Re-introduce tansy beetle to one former site on the River Ouse in Hambleton.
6. Investigate the status of shingle bars and eroding river banks, and prepare guidelines for their conservation.
7. Monitor the distribution of the otter.
8. Investigate the distribution of the water vole.
9. Investigate the distribution of white-clawed crayfish.
10. Investigate the distribution of depressed river mussel.

Actions

	Partners	Target No.
RIVERS AND STREAMS (including shingle bars)		
Policy and Legislation		
Survey sites and check against SINC criteria and ratify or delete.	NEYEDC NYCC	2
Habitat and Species Protection and Management		
Encourage landowners to manage river banks for wildlife.	FWAG DEFRA, SUWP	1
Research and Monitoring		
Set up a database to assess and monitor the status of shingle bars on key rivers.	NEYEDC SUWP	6
Set up a database to assess and monitor the status of eroding river banks on key rivers.	NEYEDC	6
Advisory		
Prepare guidance on the conservation of shingle bars and eroding river banks.		6
Communication and Publicity		
No action.		

ASSOCIATED WILDLIFE

Policy and Legislation

No action.

Habitat and Species Protection and Management

Encourage river bank owners to install artificial otter holts where appropriate.	FWAG HH-AONB, DEFRA	3
Encourage road engineers to build culverts or otter ledges, where bridge designations allow.	NYCC	4
Investigate the ecology of the tansy beetle, and working with a range of agencies select a suitable location for a re-introduction attempt.	DEFRA	5
Assess where water voles currently occur and encourage landowners and agencies to manage bankside habitat to allow for the expansion of the water vole population.	BTCV, DEFRA	1

Research and Monitoring

Monitor otter re-population in Hambleton.	HH-AONB	7
Set up a database and survey all road bridges for obstructions to otter passage.		4
Survey distribution of water vole.	BTCV, NEYEDC	8
Survey distribution of white-clawed crayfish.	BTCV, NEYEDC	9
Survey distribution of depressed river mussel.	NEYEDC	10

Advisory

Write to river agencies on the importance of un-disturbed river shingle beds to little ringed plover.		1
Prepare & distribute advice on bridge ledges and road underpasses for otters.		4

Communications and Publicity

Raise awareness of Rivers and Streams sections of HBAP to appropriate organisations.		1
Organise the selection of a flagship species to promote this action plan.		1
Investigate involving the public in a survey of the flagship species.	BTCV NEYEDC	1