

RIVERS IN OXFORDSHIRE

1. INTRODUCTION

Rivers are linear wetland habitats with permanently or seasonally flowing water. Rivers in semi-natural landscapes are typically associated with complexes of other wetland habitats including floodplain fens, wet grassland, oxbow lakes, temporary ponds and floodplain forest.

2. PRIORITY SPECIES

Rivers in the county support populations of several BAP species: depressed river mussel, water vole, Thames ram's horn snail, white-clawed crayfish, reed bunting and reed warbler. Otters are increasingly recorded and are gradually recolonising the county, boosted by releases by the Otter Trust in the upper Thames.

A range of nationally scarce species are also found in association with rivers in the county (e.g. river water-dropwort, club-tailed dragonfly, Loddon lily), as are a number of other 'local character' species.

Information about Priority BAP species associated with rivers in Oxfordshire is given in Section 2.3.1. Specific river-based projects are being undertaken in Oxfordshire to assist two of these species: otter and water vole. A wide range of other species of conservation concern and locally important species are associated with river and ditch habitats. These include a range of river edge bird species such as reed, sedge and Cetti's warbler, water shrew (thought to be declining, but status unknown), fish species identified under the EU Habitats Directive such as brook lamprey, bullhead and barbel, invertebrate species such as the club-tailed dragonfly (for which the Thames is a stronghold) and the Thames ram's horn snail (as yet only recorded in Oxfordshire), and localised plant species such as greater water parsnip and river water dropwort. Many of these species will depend on sustainable management, good site data and continued vigilance in order to safeguard their populations. All of these species are to be included in the Environment Agency's

UK Biodiversity Group - Priority Species

Otter
Water vole
Pipistrelle
Reed bunting
Depressed river mussel
Freshwater pea mussel
Southern damselfly
Desmoulin's whorl snail
White-clawed crayfish

UK Biodiversity Group - Species of Conservation Concern

Daubenton's and other bats
Barbel
Brook lamprey
Bullhead
Grayling
Cetti's warbler
Reed warbler
Sedge warbler
Kingfisher
Greater water parsnip
Thames ram's horn snail

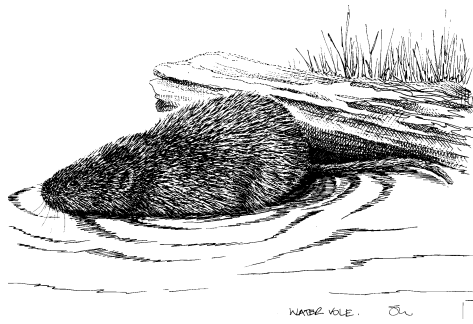
ASSOCIATED HABITATS

Ponds
Fens and flushes
Farmland
Grazing marsh and neutral grasslands

Regional Biodiversity Strategy currently being developed.

2.1 Priority BAP species associated with rivers in Oxfordshire and current work being undertaken to conserve these species

Otter: The Environment Agency has initiated two Otter projects, undertaken in collaboration with The Berks, Bucks & Oxon Wildlife Trust and co-sponsors, within the county. The recently-launched Thames Water and The Wildlife Trust's Otter Project, with funding from Thames Water, Fina and the Agency, will build on this work. A programme of otter habitat creation is in progress in the Upper Thames (mainly provision of refuge sites). There has been sporadic otter activity in the county since 1989, with an upsurge in activity due to releases by the Otter Trust on the edge of the county. Some monitoring is being done by the Environment Agency and Oxford University's Wildlife Conservation Research Unit, and the Wildlife Trust is working to establish a network of volunteer surveyors as part of the Otter Project. The National Otter Survey is being repeated in 1999-2001 and covers parts of the



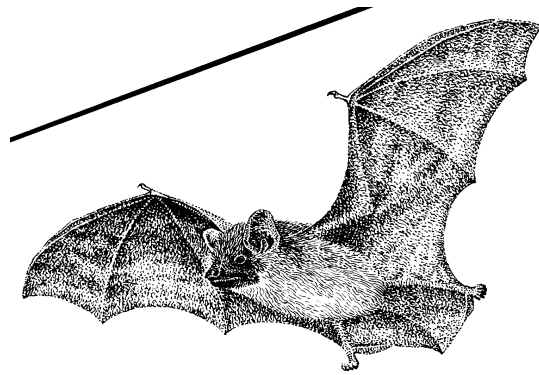
Water vole *Arvicola terrestris*

county.

Water vole: Available evidence indicates an ongoing decline of water voles in river systems in the county. The Water Vole Recovery Project was initiated by the Environment Agency and is undertaken by The Berks, Bucks & Oxon Wildlife Trust, with co-funding from Thames Water, British Waterways and the Agency. Research examining the ecology of mink and water vole and the relationship between the two was undertaken by WildCRU in partnership with

the Environment Agency within Oxfordshire and has recently been published. The Environment Agency screens all capital and maintenance works on rivers for presence of water vole and employs sensitive maintenance procedures to protect habitat. All authorisations for works to rivers issued by the Agency, and responses to statutory planning consultations, also take into account water vole survey and conservation requirements.

Pipistrelle bat: Widespread but thought to have declined significantly. Found in many habitats but river corridors are prime feeding habitat. Most monitoring is done by the Oxfordshire Bat Group (OBG); the Environment Agency has



Pipistrelle bat *Pipistrellus pipistrellus*

initiated batbox schemes on its lock sites on the Thames, monitored by the OBG, and has worked with them to convert WWII pillboxes into bat hibernacula beside the Thames.

Reed Bunting: The reed bunting is still widespread within the county although it has undergone a significant decline, mirroring the national situation, following a population peak in the 1970s. A number of sites within Oxfordshire are surveyed as part of the BTO's national CBC and BBS surveys, but a county population index has not been established yet.

White-clawed crayfish: White-clawed crayfish have declined considerably in Oxfordshire rivers. The Berks, Bucks & Oxon Wildlife Trust are currently surveying their reserves for the presence of this species and the Environment Agency are undertaking a program of survey in their West Area. Experimental reintroductions have been undertaken on the River Windrush but with limited success to date. The Environment

Agency maintain a distribution database for all crayfish species records, including non-natives, and uses this database to inform decisions on authorisations and advice on planning consultations.

Depressed river mussel: A national BAP has been written for this species. The Environment Agency will be developing a Regional target for the depressed river mussel. Survey work, funded by the Environment Agency, Thames Water Utilities and Anglian Water has recently been undertaken by Cambridge University.

Fine-lined pea mussel: There are a number of scattered records in the county, mainly along the River Thames, although the species has recently been found along the River Ock during ecological survey work for the Abingdon Reservoir proposal. Knowledge of the ecological requirements of the species is limited. The Environment Agency is commissioning survey work to better establish the range of the species in the Thames Region.

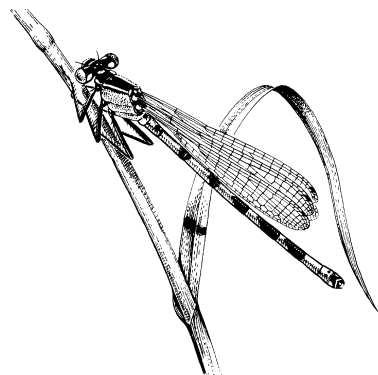
Southern damselfly: This rare species is found only at one complex of sites in the county. Survey work is required to establish the size and extent of the population - the Environment Agency and English Nature have initiated this in 2000.

Desmoulin's whorl snail: This species is found at a number of sites alongside the River Thames and in the Ock catchment (Sandford Brook). A Species Action Plan has been written covering the three counties of Oxfordshire, Berkshire and Buckinghamshire. Habitat enhancement at one of these sites, at Cholsey Marsh, has been undertaken by the Environment Agency in collaboration with the Wildlife Trust, which should serve to aid spread of appropriate wet reed and sedge swamp habitats for this species.

3 CONSERVATION

River and ditch habitats support a large number of species, several of which are listed as UK Priority BAP species. The priority for rivers and ditches in Oxfordshire must be to maintain, and where possible enhance, the value of these habitats for fauna and flora. It is essential that

they are protected to prevent decline in biological quality and that the existing resource is managed sympathetically and sustainably to enhance its wildlife potential.



Southern Damselfly *Coenagrion scitulum*