

## Action Plan Scope:

This Action Plan covers the UK Broad Habitat Rivers and streams<sup>1</sup> plus associated habitats within the river corridor.

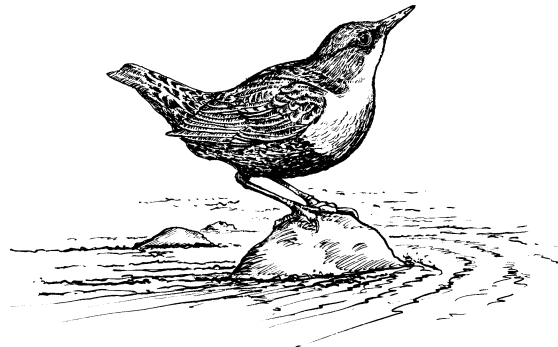
## 1. CURRENT STATUS

### 1.1 Legislation and priority status

International	Habitats Directive <sup>a</sup> (Annex I) (Some river corridors)
UK and Wales	Land Drainage Act 1991 Water Resources Act 1991 Various statutory duties of Environment Agency Wales water management and pollution control functions SSSI legislation <sup>b</sup> (Some river corridors)
Gwynedd	Snowdonia BAP

### 1.2 Status in Wales and beyond

In their natural state rivers are dynamic systems, continually modifying their form. However in many cases their ability to rejuvenate and create new habitat has been reduced or arrested by flood defence structures and impoundments. There are few rivers in the UK which have not been physically modified by man, and such rivers represent a very valuable resource. Erosion of banks has also been caused by canalization and the removal of tree cover in historic times. Such activities have resulted in changes in the frequency and magnitude of flooding, altering seasonal and annual patterns of flow. In addition, flow regulation has altered patterns of sediment transport and nutrient exchange in river systems. Any resulting eutrophication can have detrimental effects on floodplain habitat adjacent to the main stream.



### 1.3 Status in Gwynedd<sup>c</sup>

There are many river corridors in Gwynedd, although the total length of watercourse is not known. Each of these river corridors changes in character along its course. They may appear as fast, flashy upland streams in the mountains, becoming slower, wider, meandering lowland rivers until they form estuaries as they meet the sea. The upper reaches of many catchments lie within the Snowdonia National Park boundary.

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<sup>a</sup> Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora.

<sup>b</sup> Wildlife and Countryside Act 1981, Countryside and Rights of Way (CRoW) Act 2000

<sup>c</sup> Within this document the term "Gwynedd" refers to areas outside the Snowdonia National Park area, except where specified otherwise

## 2. FACTORS AFFECTING THIS HABITAT IN GWYNEDD

- Uncontrolled grazing of riverbanks, which contributes to erosion and siltation, reduces natural tree regeneration and affects the suitability of bankside habitat for species such as otter and water vole.
- Pollution of water courses, including diffuse agricultural runoff of insecticides, nitrates, farm wastes; point source pollution including sewage discharge; air pollution leading to acidification of catchments.
- Changes in land use within river catchments such as afforestation and high stocking rates in the uplands, which are thought to lead to increased run-off, higher silt loads and increased acidification.
- Historical watercourse management including flood defence works such as dredging, straightening and canalisation of watercourses, alongside the drainage of land.
- Inappropriate development on the floodplains.
- Invasive "exotic" plants and animals such as Japanese Knotweed and Himalayan balsam out-compete native flora along riverbanks. Introduced North American mink are a threat to native river corridor fauna such as water voles. Illegal stocking of non-native fish species has an adverse effect on native fisheries.
- Phytophthora disease, a fungal water-borne disease often fatal to alders along rivers and present on the Seiont and Glaslyn catchments.
- Gravel extraction for commercial or local usage can lead to gravel shortages in rivers and streams, resulting in damage to and loss of spawning sites alongside a reduction in exposed riverine sediment.
- Alteration of water levels -through land drainage, flood control, abstraction of water, and as a potential result of climate change; increased periods of flooding and / or increased occurrences of drought.
- Disturbance from increasing water-based recreational activities.

## 3. ASSOCIATED GWYNEDD SAPS / HAPS

Wet woodland, Coastal and floodplain grazing marsh, Wetlands, Lakes, ponds and ditches

Otter, Polecat, Water vole, Lesser horseshoe bat, Bats, Nightjar, Arctic charr, Lampreys, Salmonids, Freshwater pearl mussel, Whorl snails, Floating water plantain

## 4. CURRENT ACTION IN GWYNEDD

### 4.1 Site and habitat protection

- All or part of a river corridor may have been identified as a potential Wildlife Site, or be designated as SSSI. Some examples of river corridors fall within sites designated as candidate SACs / SPAs - (Afon Gwyrfai a Llyn Cwellyn - primary reason for site selection, Meirionnydd Oakwoods and Bat Sites - present as a qualifying feature).
- EIA's are required for some developments within river corridors, and Environment Agency Wales carries out EIA assessments for all internal works including routine and non-routine flood defence works
- Environment Agency Wales implements relevant legislation as outlined above, through licensing and consents including discharge consents, abstraction licensing, Land Drainage Consents and Groundwater Authorisations.

## 4.2 Management and programmes of action

- Environment Agency Wales is carrying out a review of best practice for the maintenance of lowland drainage systems. Its Flood Defence section uses a Bradshaw weed cutting bucket to carry out all its ditch management minimising damage to vegetation roots. It also carries out habitat enhancement schemes in mitigation for unavoidable damage during flood defence operations.
- Habitat creation and management schemes have proved successful in many river catchments, often funded through agri-environmental grant schemes, e.g. Llŷn ESA, Tir Gofal. Streams may be included in the Tir Gofal whole farm agri-environment scheme administered by Countryside Council for Wales (payments for creation of new habitats for streamside corridors). Floodplain grassland is incorporated as a mandatory habitat within Tir Gofal.
- Environment Agency Wales Plans include many actions relevant to this habitat.
- Through North West Wales Riparian Mammals Group a riparian mammals project is being undertaken jointly between Gwynedd Council, Environment Agency Wales, Snowdonia National Park Authority, Menter Môn and North Wales Wildlife Trust, which will include habitat enhancement work. The Gwynedd pilot area is the Glaslyn catchment, where work commenced in Spring 2003, and there is the potential for expansion of the project into further catchments in future.
- Gwynedd Sustainable Angling Initiative is using Objective 1 funding to enhance the habitat of some of Gwynedd's river catchments of importance for fisheries, which should also have biodiversity benefits.
- The UK wide Water for Wildlife project (formerly Otters and Rivers Project), is run by the Wildlife Trusts, and aims to carry out conservation work with local communities in riverside and wetland habitats. There is currently a Wales manager, who will be joined in the near future by a North Wales project officer.
- As part of the Clean Rivers Project (Keep Wales Tidy) there are currently five River Care groups in Gwynedd (outside Snowdonia National Park). Project work to date has included rubbish collection, vegetation management and provision of bird boxes.
- Environment Agency Wales currently have a Japanese Knotweed control programme for the Afon Ogwen.

## 4.3 Survey, research and monitoring

- The riparian mammals project (see section 4.2) will include surveys for otters, water vole and mink.

## 5. ACTION PLAN OBJECTIVES

1. To gain a fuller understanding of the biodiversity associated with river corridors in Gwynedd
2. To enhance the quality and extent of river corridor habitat present, and ensure that it is capable of supporting associated species

## 6. PROPOSED ACTIONS

Code	Action	Partner(s) <sup>d</sup>
<b>Policy and legislation</b>		
1	Use planning conditions to ensure developments in sensitive locations are compatible with conservation of river corridors TARGET/TIMESCALE: Ongoing	<b>GC</b> , Relevant partners
2	Include conservation actions for river corridors within all relevant EAW plans to be published in the future TARGET/TIMESCALE: Ongoing	<b>EAW</b>
3	Ensure that all river corridors which meet the relevant criteria are designated as Wildlife Sites TARGET/TIMESCALE: Start process of designation, by 2005	<b>GC</b> , EAW, NWWT, Water for Wildlife
4	Continue habitat management and protection as part of Gwynedd Sustainable Angling Initiative, in conjunction with Angling societies. TARGET/TIMESCALE: Ongoing	<b>EAW</b> , CCW, GC
<b>Species / habitat management and protection</b>		
5	Promote and support grant schemes including Tir Gofal, Llyn ESA and / or use management agreements to secure favourable management of river corridors, taking into account the needs of associated LBAP species and habitats TARGET/TIMESCALE: To be set, Ongoing	<b>EAW</b> , CCW, CLA, FUW, FWAG Cymru, GC, NFU Cymru
6	Continue and expand the riparian mammals project currently underway by sourcing additional grant aid, as part of a biodiversity grant scheme, which would include grants for appropriate management of river corridors TARGET/TIMESCALE: To be set, By 2005	<b>GC</b> , Relevant partners
7	Ensure that conservation and enhancement of river corridor habitat and associated LBAP species and habitats are considered within any relevant management plans or grant schemes (including NWMPs, WGS, Tir Gofal, ESA) by liaison (including consultation and provision of comments) between key organisations including EAW TARGET/TIMESCALE: Ongoing	<b>EAW</b> , CCW, DEPC, FC, GC
<b>Advisory</b>		
	None identified	NA
<b>Survey, research and monitoring</b>		
8	Carry out catchment wide investigations to identify any problem areas TARGET/TIMESCALE: Ongoing	<b>EAW</b> , CCW, DEPC, GC, NWP
9	Improve species / habitat data for main river corridors through ecological survey, in partnership with local groups including local Angling Societies, Clean Rivers Project groups and local volunteers, and with those carrying out similar surveys within Snowdonia National Park and adjacent areas. Ensure that surveys are integrated within any Welsh / UK survey programmes. TARGET/TIMESCALE: Baseline surveys covering all main river catchments, By 2009	<b>GC</b> , Afon Aber Otter Project, Afon Dwyryd Otter Project, KWT, Water for Wildlife
<b>Communications and publicity</b>		
10	Arrange training for Tir Gofal officers in river corridor management TARGET/TIMESCALE: To be set	<b>CCW</b>
11	Encourage the formation of additional River Care groups, and encourage them to carry out projects contributing to biodiversity conservation and enhancement TARGET/TIMESCALE: Ongoing	<b>GC</b> , KWT
12	Raise awareness of the implications of the Groundwater Regulations 1998, in particular relating to the use and disposal of sheep dip TARGET/TIMESCALE: Ongoing	<b>EAW</b> , NWP

<sup>d</sup> Lead partner for this action is indicated by bold typeface, see section 7.2 for explanation of abbreviations

## 7. PARTNERS & OPPORTUNITIES

### 7.1 Overall lead partner for HAP

Environment Agency Wales (EAW)

### 7.2 Key partners

Afon Aber Otter project

Afon Dwyryd Otter Project

Countryside Council for Wales (CCW)

Country Land and Business Association (CLA)

Department for Environment, Planning and Countryside (Welsh Assembly Government) (DEPC)

Farmers Union of Wales (FUW)

Farming and Wildlife Advisory Group Cymru (FWAG Cymru)

Forestry Commission (FC)

Gwynedd Council (GC)

Keep Wales Tidy (KWT)

National Farmers Union Cymru (NFU Cymru)

North Wales Police (NWP)

North Wales Wildlife Trust (NWWT)

Water for Wildlife

### 7.3 Opportunities

Angling Societies, Clean Rivers Project groups, Community Groups, Volunteers

## 8. ACKNOWLEDGEMENTS

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**Consultation:** Robert Greig (Anglesey Otter Project), Carri Lane (EAW), Jill Jackson (GC)  
**Line drawings:** English Nature

## 9. ABBREVIATIONS

BAP: Biodiversity Action Plan, EIA: Environmental Impact Assessment, ESA: Environmentally Sensitive Area, HAP: Habitat Action Plan, JNCC: Joint Nature Conservation Committee, LBAP: Local Biodiversity Action Plan, NWMP: Native Woodland Management Plan, SAC: Special Area of Conservation, SAP: Species Action Plan, SPA: Special Protection Area, SSSI: Site of Special Scientific Interest, WGS: Woodland Grant Scheme

Version 1, 2004

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<sup>1</sup> UK Biodiversity Group classification - Jackson, D.L. 2000. *Guidance on the interpretation of the Biodiversity Broad Habitat Classification (terrestrial and freshwater types): Definitions and the relationship with other habitat classifications.* JNCC Report No. 307.