



The shingle habitats of the Spey, below Lochaber, are internationally important and support an exceptional variety of plantlife as well as many groups of alder trees.

As the river approaches the sea, it runs over sandstone, often altering its channels before meeting the shifting shingle ridges of the coast.

Waters.

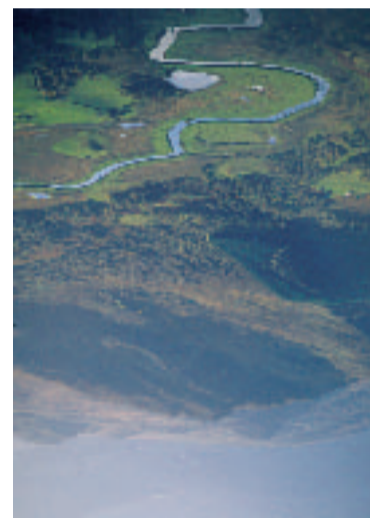
(moraine) left by the great ice flows and their melt spreads of sands and gravels are the debris valley) of the Spey. The loose rocks and the create the great sath (Gaelic for broad glaciers tore away much of the rock to During the last 2.5 million years, huge Monadhliath and Cairngorm ranges.

peaks to leave the rounded shapes of the formed. Rain, sun, wind, rivers and ice eroded many

Mountains were Gramplan

granite rocks of the years ago, the than 400 million major events. More character to two owes much of its in Scotland and second longest river

High lands and islands



Statutory protection for the Spey will help to conserve its outstanding habitats for threatened species.

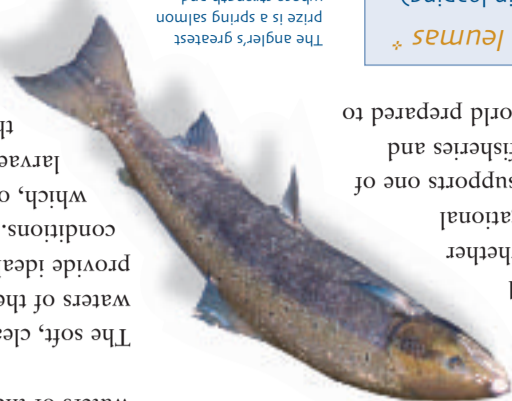


Goldeneyes dive continually and are easily alarmed - you'll see distinctive white bars on their wings when they take off. The female's head is brown, with no white patch.

In recognition, the Spey was notified as a Site of Special Scientific Interest (SSSI) in 1998 and its importance further recognised by candidacy as a Special Area of Conservation (SAC). In 2003, the SAC was extended to include the main tributaries of the river, offering a sinuous network of protection throughout the catchment.

A noble fish

The Atlantic salmon holds a special place in most people's affections, whether for its indomitable energy, its navigational skills or simply its taste! The Spey supports one of Scotland's most important salmon fisheries and attracts anglers from all over the world prepared to



The angler's greatest prize is a spring salmon whose strength and vitality present a noble challenge.

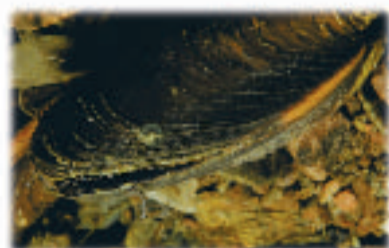
Protecting a unique river system

From the rivers' mouth at Spey Bay where the Spey flows into the Moray Firth, to the highest of the Cairngorm hills over 1300m above sea level, the river is largely unmodified and unpolluted. Accordingly, the catchment ... all 3008km² of it ... has an aquatic environment of the highest quality. The river and its tributaries are home to four species in particular, that are rare, threatened or endangered in a European context - these are the Atlantic salmon, otter, freshwater pearl mussel and sea lamprey.

Successive floods gradually shift the bed of the Spey so that the banks, gravel bars and pools change over time.



The water's fast and relatively even flow, and its lack of pollution and obstructions, mean salmon can spawn throughout most of its length as well as in many tributaries. Freshwater pearl mussels are endangered across Europe as a result of over-fishing, pollution and poor management of rivers and catchments. The Spey is one of the few rivers where they continue to thrive - helped by Operation Necklace which has highlighted their protection under the Wildlife & Countryside Act. Many mussels have also been saved from persecution by the deeper, inaccessible waters of the river.



Fresh water pearl mussels mature around 12 years old and can live for 100 years. Small pearls occasionally form inside the shell but fishing for them or disturbing mussels in any way is illegal.

The soft, clean conditions. Females produce up to a million eggs which, once fertilised, are squirted out as active larvae called glochidia. They survive only if trout and attach themselves to the gills. The fish's skin forms a cyst over each one which then harmlessly grows there for almost a year. If they're lucky and land on a suitable area of river bed, they can live for over one hundred years.

The lamprey has a sucker-like mouth disc which can grip hold of almost any surface.



emerge and transform quickly into eel-like adults. They can grow to 50cm in length

Maturing sea lampreys live off fish such as haddock, cod, salmon and trout, using their teeth to scrape a hole in their prey before drawing out blood. They then forsake feeding when they leave the Moray Firth to spawn in the clean gravel of the Spey's middle and lower reaches. Larvae hatch after three weeks and follow the current downstream before burrowing into the riverbed's silt and sand. Up to five years later, after feeding on tiny organisms, they emerge and transform quickly into eel-like adults.

A love-bite to avoid

and roads. However, the Spey is one of the best freshwater sites in Scotland for these agile swimmers. The catchment provides water of high quality and abundant food in its many lochans, ponds and marshy patches. Otters eat all kinds of fish but prefer those with plentiful fat, such as salmon, trout and eel; they also enjoy frogs

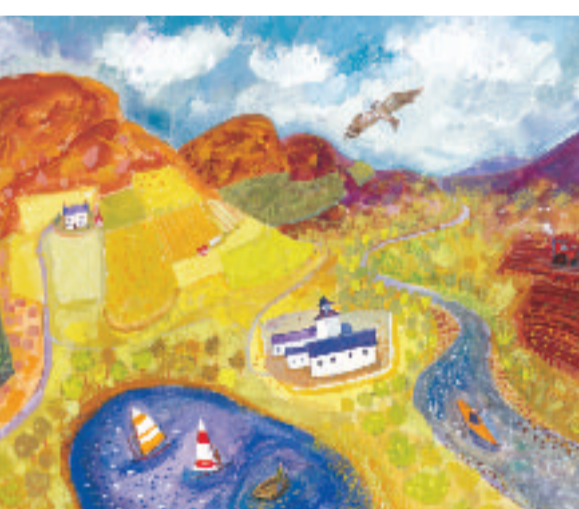
Every other needs its own territory, which it marks with spraints (droppings) and which takes in a large area of little-disturbed waterside with plenty of undergrowth. In many other parts of Europe, otters have suffered from destruction of their habitat.

The site of an otter's sheltered hole under the river bank is often chosen to give direct access to the water.



A des res for others

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The following publications are all available for download as pdf files from www.snh.org.uk/spey

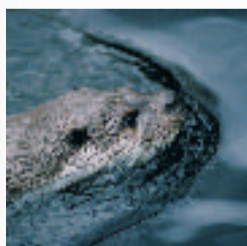
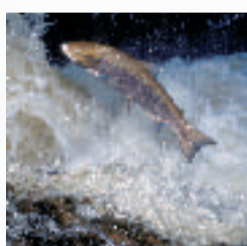
- The River Spey Catchment Management Plan
- River works on the Spey and its Tributaries: Who to contact and how to proceed
- The Economic Impact of Water-related Recreation in the River Spey Catchment 2003
- An Investigation of the Scope for Improved Farm Water and Waste Management in the Spey Catchment
- The Spey Catchment leaflet

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The River Spey Catchment



A walk on the wild side

A map of the Spey deceives as it informs for it can't show the subtleties of the river's flow, the light and shade of its landscape nor the complex 'web of life' that links water, plants and animals.

The map does show a river, 157km (98 miles) long, surging from the high moorland of the Monadhliath (Grey Mountains) and meandering through the lands of Badenoch, Strathspey and Speyside before rushing into the Moray Firth.

The river's name is Celtic, probably meaning hawthorn stream but perhaps describing its frothing

Magnum et miserabile flumen, quod vocatur Spe (the large and dangerous river, which is called Spey) - from a 12th century manuscript *De Situ Albaniae*

swiftness. It's a river that conjures many other pictures too - of salmon, whisky, ospreys or otters; of walking, canoeing, fishing or pinewoods: or simply ever-changing waters.



The Spey offers all these pleasures and more. It's a river to savour, remember and respect.



Timber, floods and fishing

In 1539, the first recorded consignment of timber from Strathspey was floated down the river to Speymouth. Over the next 350 years or so, large areas of Caledonian pine forest were felled to build ships and houses. Much went south by sea but Garmouth and Kingstoun later became shipbuilding ports in their own rights.

Increasing road transport demanded that the Spey be bridged and Telford's arch at Craigellachie is the most graceful of any structure. It still stands, having escaped damage in the 'Muckle Spate' (big flood) of 1829 that devastated much of Strathspey and Speyside



The chain-operated ferry across the River Spey at Boat of Garten served travellers until a bridge was built in 1899.

including many of the other bridges. Flooding remains a problem today when flash storms turn the river and its tributaries into torrents.



Timber from estates along the Spey was floated, or rafted, down the Spey until the early 1900s.



In 1812, after Telford designed Craigellachie Bridge - Scotland's first cast iron bridge - he took local advice and fortunately, built it five feet higher than planned

The River Spey Project 2001-2004

The Spey is such an important resource for so many people, it's only natural that everyone

recognises the need to ensure its future protection. In 1999 a group of key agencies and authorities (Moray & Highland Councils, Scottish Natural Heritage, The Spey District Fishery Board & The Scottish Environment Protection Agency) started to consider how best to develop a more integrated approach to its management. They combined to form the Spey Catchment Steering Group.

Two years ... and a partnership application to the Highlands and Island Special Transitional Fund later, the River Spey Project began.

One of the main outcomes from the project has been a Catchment

Management Plan. The plan provides a timely stepping-stone for the measures included under the Water Framework Directive. This new European legislation makes it a requirement to have integrated management and protection of water quantity, quality and physical habitat.

But the River Spey Project hasn't just been about planning; its also about doing.

Over the past three years, gaps in knowledge have been filled by studies of economics and farm waste,



After 98 miles, the waters of the Spey spill in the Moray Firth through the shifting gravels at Spey Bay

by the collation of guidance on river engineering and an educational resource to raise awareness of the importance of the river community has also been produced.

When the river runs through it; Water resources and flooding

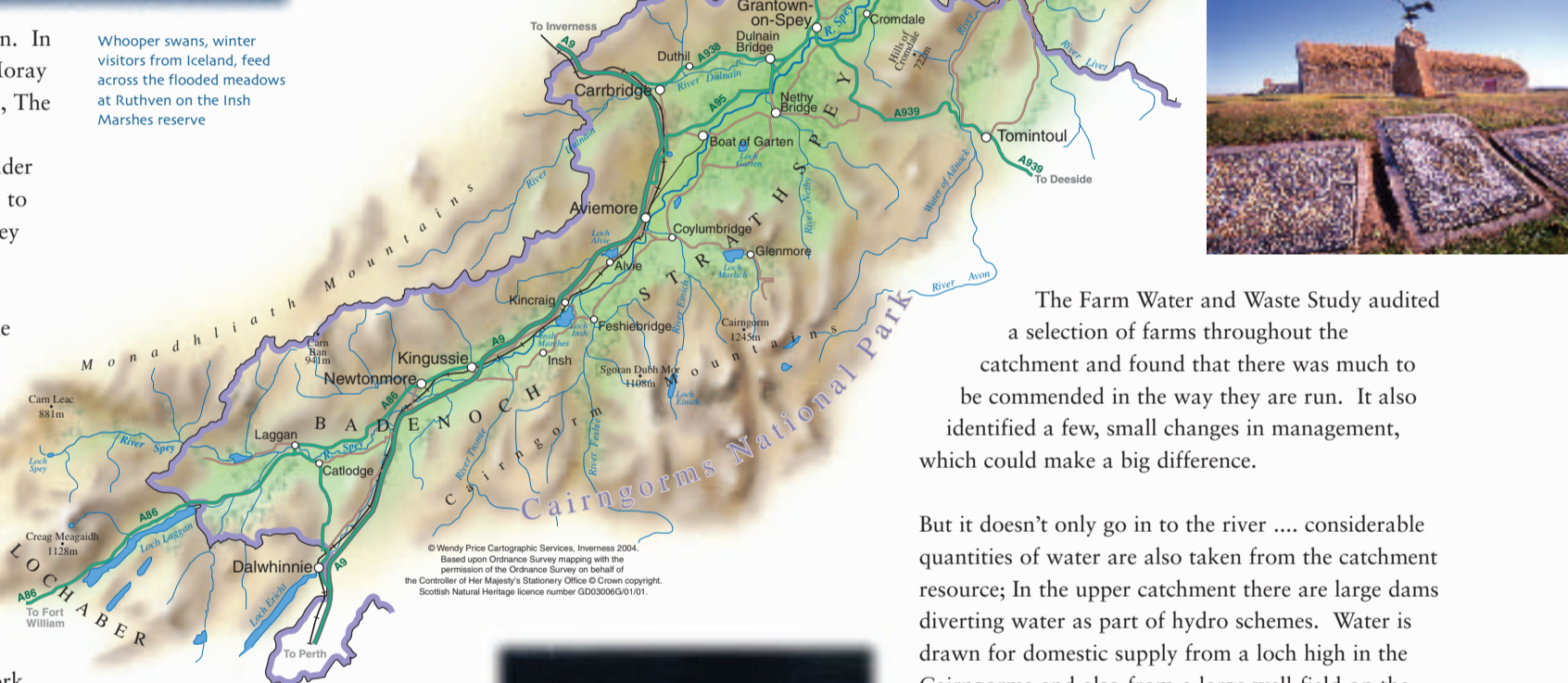
There are times when the river runs riot. Snow melt or prolonged rainfall cause the hillsides to flow with water, burns and culverts to boil and the Spey to spill out onto the floodplain.

Tonnes of water pass through the catchment each year; the long term average flow (measured at a gauging station in the lower catchment), is 65 'cumecs' - or 65 cubic metres per second ... that's about one hundred and thirty seven thousand pints every second!

The river changes its course constantly but spates can change it dramatically; sometimes overnight; carving, scouring, moving, depositing.

A complex system of automatic monitoring is in place to enable flood-warnings to be issued to farmers and other residents of impending flood risk.

Whooper swans, winter visitors from Iceland, feed across the flooded meadows at Ruthven on the Insh Marshes reserve



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This allows stock to be moved and in extreme conditions, houses to be evacuated in advance.



The Spey is an upland river and the run-off in its catchment is rapid, resulting in sudden spates at almost any time of the year.

Over the years, much bank protection work has taken place. Rock armouring has smoothed curves, turning the river and keeping it where people want it to be. Dredging has cleared channels and re-dug the pools filled with spate gravels. These actions to 'contain' have often contributed to subsequent flooding problems. We now know the extent of impacts on the river and the important species that live in and around it and river works are regulated.

More often than not, there's a time and a place (and a way), which will minimise damage to the river. To help people through the tricky process and put them in contact with the right people for advice, we've published a 'Riverworks code'.



And it doesn't only go in ...

The catchment is more than just a home to the special creatures and habitats we've mentioned ... and more than just a glorious backdrop for our pleasure. The river is a drain for acidified rainfall, for summer floods, for washed-out salts and silts from our roads and for treated sewage and trade effluent.

With much of the catchment floodplain being agricultural land, we needed to find out whether modern farming was a threat to water quality and if so, how things could be improved.



The icehouse at Tugnet is a reminder of the days when fresh salmon were packed for delivery by rail to towns and cities throughout Britain.



The Farm Water and Waste Study audited a selection of farms throughout the catchment and found that there was much to be commended in the way they are run. It also identified a few, small changes in management, which could make a big difference.

But it doesn't only go in to the river considerable quantities of water are also taken from the catchment resource; In the upper catchment there are large dams diverting water as part of hydro schemes. Water is drawn for domestic supply from a loch high in the Cairngorms and also from a large well-field on the riverbank, near Fochabers, in the lower catchment. Near Aviemore, water is drawn from the River Drurie to service a large fish farm.

Famously, the catchment is the home of a thriving whisky industry. The water of the Spey and its tributaries are used both as an ingredient and in the process. Around 30 malt whisky distilleries produce their own distinctive 'drams' of uisge beatha from the Spey waters.

Surface water is drawn directly from the river or from small tributary burns as a coolant; It passes through the distillery and then most of it goes back into the river system - perhaps a few degrees warmer - downstream. This 'uplift' of the water temperature is also closely regulated.



The water drawn from springs by each distillery is largely responsible for the subtle variations in the taste of individual malt whiskies.

Working waters



Like many other great rivers, the Spey and its tributaries play their part in the local economy. Nature conservation and outdoor recreation are increasingly valuable means of generating income from naturalists, photographers, painters, anglers, water sports enthusiasts and walkers. A network of paths and routes such as the Speyside Way long distance route encourage exploration of the area.

A recent study determined that visitors undertaking water related recreation in the Spey catchment, (principally angling, sailing and canoeing) spent around £13.5m in 2003 and supported over 400 jobs.



Fishing has long been an economic mainstay of the riverside communities, generating significant income for the area, and providing employment. With an increase in the popularity of outdoor recreation in recent years, together with changes in legislation, we're all facing new challenges in the management of our shared resource.

Part of a park

Tourism is big business and with the designation of the Cairngorms as Scotland's second National Park, the special features of the area are likely to reach an even wider following.

The Park covers 3816 km² and includes two thirds of the River Spey Catchment within its boundary - including the majority of the important upper tributaries; the Rivers Avon, Feshie, Tromie and Truim.

The Park was established with four specific aims;

- to conserve and enhance the natural and cultural heritage of the area
- to promote the sustainable use of the natural resources
- to promote the understanding and enjoyment of the Park and
- to promote the sustainable economic and social development of the area's communities.

Once again, the Catchment Management Plan has started to address some of these issues and provides a few blocks for the Park Authority to build upon in developing their National Park Plan.



Over to our children ...

We wanted to make sure that the young people of Moray, Badenoch and Strathspey, who live in the catchment, understand their cultural and natural heritage and so another output of the project has been 'Riverbanks'.

'Riverbanks' are boxes of books, videos, fact sheets and images explaining everything about the catchment; its history and who and what lives here. We included things like feathers and rocks, bird rings, fishing nets and music to help people appreciate the rivers influence on their lives.

