

## Connections

### ***The Caledonian Canal; the Union Canal; the Forth and Clyde Canal; the Crinan Canal.***

These names are steeped in the history of Scotland. Before the railways took much of their trade, canals were the life blood of industrial development, carrying coal, steel, building materials. They allowed for shipping to travel from east to west and facilitated the burgeoning trade of the empire. Fishing vessels could move more easily to new grounds with each season. And these were magnificent engineering feats in their own right: tiers of locks and great aqueducts designed by the likes of Thomas Telford – men who forged an international reputation for engineering excellence in Scotland. The Falkirk wheel is a startling continuation of this tradition – but success here is measured in terms of visitor numbers – 400,000 per year – not tonnes of coal or number of boats.



What then do these structures have to do with engaging people with biodiversity? They offer a unique opportunity to get people engaged and do something practical and positive at the same time. Canals and associated land are rich and varied habitats - in a sense they encompass all the major lowland habitats, but have not been subject to intensive extractive management. Crucially however they are important connections: green and blue corridors along which wildlife can move and spread. Two centuries ago the canals lay at the heart of the industrial revolution, because communications were fundamental to development. They were critical components in the infrastructure of development. Perhaps now they can lie at the heart of the green revolution, serving as part of the “green infrastructure” – a network linking greenspace and patches of semi-natural habitat across Scotland – something which is essential if plants and animals are to survive in a dynamic and changing world.

But canals also serve another hugely important function. They connect city with countryside and bring the countryside into the city, and often right into the industrial heart-land. They represent a major leisure and health resource – for walking, jogging, cycling, canoeing, boating – and breathing.

We can engage people with biodiversity through canals in two ways: by encouraging conservation volunteering to enhance canal habitat; and by raising awareness, appreciation and knowledge of canal wildlife amongst those who use the canals for leisure.



The British Waterways Trust is doing both of these things, and in the process strengthening communities, improving greenspace and enhancing biodiversity. In Scotland it runs a thriving programme of activities to connect canals with communities – including raising £1 million for outdoor activity centre on the Grand Union Canal. In Falkirk it has been running the Green Scene – stimulating community engagement in improvements to the area surrounding the Auchinstarry basin. It is also running a “protect and restore” initiative to conserve and re-establish hedgerows along the canal land boundaries. “Action outdoors” promotes a variety of outdoor activities training and personal development. Canal clean-up days help build interest and pride in the local canal. In Glasgow 240 children were engaged in cycling, canoeing, and environmental walks last year, and a programme to improve access and information has been launched on the Glasgow Branch of the Forth and Clyde Canal. Creative workshops have been run in schools to produce ceramic tiles with canal and wildlife themes which are now being used to decorate new litter bins. Some of these activities also cross link with the eco-schools initiatives.



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Although these initiatives are similar to other practical conservation volunteering programmes, with the canals and waterways there is the added value of what might be called *strategic impact*. Habitat improvements in one location along the canals can bring benefits elsewhere; habitat improvements in several locations along the canal system will reinforce each other. This is particularly important, because in some of the other stories people have mentioned the difficulty of *doing something* for nature. With canals it is relatively simple. Hedges, trees and meadows alongside canals will greatly increase structure and connections in the natural world. Leave some grass to nature; mow some grass; create some wetlands. Maintain some of the linear connections, but add diversity of management and structure, and you will almost certainly bring the wildlife back. And then use it, enjoy it. Doing these things also generates all the other benefits associated with hands on conservation volunteering (see for example Fife Air Cadets): opportunities and skills development for the disadvantaged; community strengthening; pride in greenspace and the environment generally. Plus the sheer enjoyment of messing about in boats, fishing, picnicking and so on.

Safety is often considered to be a problem with canals, but Karen Moore of British Waterways Trust referred to a two year access study and community consultation along the Forth-Clyde and Union Canals which did not identify safety as a big issue. In any case, she says that risk assessments are now routine for any work with kids. The biggest issue is vandalism (perhaps not surprising given the reach of some of the canals to deprived city areas), but this is one which should decline if communities become more engaged and place greater value on the canals.

Perhaps canals can serve as an example of a new more “people friendly” and strategic form of nature conservation, with much stronger emphasis on managing habitat for both nature and people, and on managing landscapes and networks rather than isolated patches of habitat. This would make a strong contribution to at least two of the five objectives of the Scottish biodiversity strategy.

*Working with communities and canals will make a major contribution to at least two of the objectives in “Scotland’s Biodiversity: its in your hands”*

**People**

To increase awareness, understanding and enjoyment of biodiversity, and engage many more people in conservation and enhancement

**Landscapes and ecosystems**

To restore and enhance biodiversity in all our urban, rural and marine environments through better planning, design, and practice.

### **Some of the wildlife associated with canals in Scotland**

- Thirty three species of aquatic plant including the rare Bennets pondweed.
- Fifteen species of mollusc, including the greater ramshorn, and great pond snail.
- Two species of freshwater sponge
- Leeches and flatworms
- Hundreds of insect species including water beetles, damselfly, dragonfly, caddis fly and the fascinating water scorpion.
- Nineteen species of fish – mainly coarse fish – including pike, perch, tench roach, eels, carp, bream, stickleback, minnow, ruffe, brown trout
- Frogs, newts and toads
- Mute swans, mallard, coot, moorhen, little grebe, tufted duck, herons, swallows, swifts, sand martens.  
And in the verges, trees and hedges alongside: grasshopper warbler, whitethroat, grey partridge, yellowhammer, linnet and bullfinch, tree sparrow, blackcap and winchat.
- Otters and water voles, bank voles, shrews and woodmice
- Pipistrelle and Daubentons bats
- Twenty three species of emergent plants including reed sweet grass and tufted loosestrife, and along the banks
- Valerion, meadow sweet, sweet cicely
- Lichens, ferns, and mosses.

And if you look hard, much, much more.....