The kingfisher is a common sighting around low-lying and slow-moving rivers. Picture: Eddie Dunne.

Dipper - a common bird near fast-flowing rivers and streams. Picture: Shay Connolly.

FARMING AND *watercourses*

In part two of our series in conjunction with the Irish Ramsar Wetlands Committee, we look at farming and watercourses

Did you ever stop to wonder about that sometimes dry ditch down the passage, or the small stream under the culvert as you swing the tractor out onto the road? Where does the water go? Is there any life in them?

Springs and ground water find their way into small drains and streams. In turn, the small streams, along with many others in your neighbourhood, flow into each other to form larger streams and rivers, finally flowing into the large rivers of Ireland. All of these watercourses, big and small, are considered wetlands in the context of the UN-supported Ramsar Convention on wetlands as well as in recent national legislation on wetlands.

Many ditches and drains are wet or carry water for some period of the year. Standing water or sluggish flows can attract frogs in early spring, and who hasn't marvelled at the masses of sticky frogspawn exploding all over the surface of such channels?

The drains can trap out silt, allowing tall reeds and rushes to grow.

As so much of our landscape is still agricultural, many of our streams and channels flow through farmland. So many pieces fit together to form the complex habitats along a watercourse or river corridor.

Birds like the heron or crane, kingfisher and dipper use the channel as a flight path or runway – some bat species do the same, feeding as they travel on the adult insects that have hatched out from the channel.

HABITAT QUALITY

Many species traditionally associated with rivers and streams are a sign of good water and habitat quality – the kingfisher, salmon, water crowfoot and the rare freshwater pearl mussel to name but a few.

The trout's life cycle needs several habitats that are all found in streams and rivers: stony gravel to lay their eggs in winter; tall grasses and stable banks for younger fish to hide; deeper pool areas with overhead shading from deciduous trees to shelter fish of angling size. The tree cover, in turn, is also very attractive to kingfishers that are waiting to ambush their unsuspecting fish prey. All of this may be happening in the rivers and watercourses that flow through your land.

Tall reeds and rushes in the margins of larger channels and watercourses can host a wide range of nesting birds, including moorhens, small reed buntings and sedge warblers. These plants can also trap silt, fine sands and nutrients like nitrates and phosphates.

The plants clean the water and provide more habitats for aquatic life as well as terrestrial insects and snails. The silt can be home to juvenile lamprey, an unusual fish that lives like earthworms burrowed into sediment for several years before they emerge as young adult fish.

At times in the past "out of sight was out of mind" and watercourses were used by all – urban and rural – as a convenient dumping area. Waste seepage into dry ditches could emerge in elevated flow as a polluter further downstream. Major developments like the farm modernisation schemes, use of REPS and a younger generation of highly-educated and environmentally-aware farmers have all contributed to a greener rural environment – including rivers.

Inland Fisheries Ireland recently provided training to farmers and Teagasc's environmental advisers on river corridor habitat and management in the agricultural landscape.

Landowners or farm managers considering works that may potentially impact upon watercourses should contact their local IFI office for advice on how best to proceed in an environmentally sustainable manner with regards the timing and nature of any activity and so to avoid inadvertently causing damage or falling foul of national fisheries legislation.

An important feature to emerge from the training was the way in which good farm management helps maintain a natural balance in watercourses and channels.

Fencing and riparian management can help create stable banks, improve water and habitat quality and, thus, support all the plants and animals using the river corridor as home.

This is consistent with the "wise use of wetlands" – a key element of the Ramsar Convention on wetlands and one supported by the Irish Ramsar Wetland Committee.

DID YOU KNOW?
Salmon and trout can spawn and lay their eggs in stony channels as narrow as one metre wide (3ft).

HOW TO HELP

Below are some tips on how farmers can help keep watercourses and streams in good condition:

- Leave wide margins close to channels when spreading fertilizers or slurries.
- Fence off cattle from channel and provide in-field drinking water.
- Retain and manage tree cover along streams and rivers.
- Make sure culverts and bridge are not preventing the passage of migrating fish such as salmon and eel. CL

With thanks to the Irish Ramsar Wetlands Committee | www.irishwetlands.ie | and James Owens, Plant Ecology Research Unit, Botany & Plant Science, School of Natural Science, NUI Galway