

Testing the water with trees

MORE than 2,500 native trees now dot the banks of the Burntollet River in County Londonderry's beautiful Faughan Valley.

The riverside planting comes from a partnership between the Loughs Agency and the Woodland Trust, with support from Northern Ireland Water and the backing of local farmers.

The new additions – a flourishing mix of oak, alder and willow – already cover some three hectares (seven acres) of land. And according to the partners, this is just the beginning of a large landscape venture.

Planting by the banks of the Burntollet River will ultimately stretch over a 10-mile strip and it is hoped that, with collective efforts, the project will be replicated elsewhere in the valley.

It's a joined-up approach, but with numerous and individual rewards in the offing. Farmers are planting for a variety of reasons. The stabilisation of riverbanks, improved drainage and shelter for livestock are high on the list; with wildlife and water quality also set to benefit.

Dave Scott is the Woodland Trust's Treescap Development Lead and said: "This is a perfect example of how the economy and conservation can benefit in equal measure. As well as helping river quality, trees can help stop money from, literally, going down the drain.

"As the trees mature, their roots will help to bind and strengthen the sides of the river preventing erosion. In the Faughan Valley, landowners have seen parts of their fields essentially wash away, and while trees can't solve everything, they certainly could help

reduced the damage.

"Trees planted in the right place also help to prevent the run-off of resources such as fertilisers – soil erosion and nutrient loss are a real cost to the farming business."

With extremes of weather now commonplace and memories of last year's floods across the north west all too vivid, the charity is keen to highlight the role of trees in helping to prevent flooding.

Studies at Pontbren in mid-Wales, according to a Woodland Trust report, found that water absorption into the ground increased by 60 times within five metres of tree shelterbelts, and after just three years of planting.

Art Niven, Fisheries Biologist with the Loughs Agency, said: "The Loughs Agency appreciates the need for diverse riverside areas that act as a buffer between the land and our watercourses.

"Native fish species and other aquatic plants and animals benefit from native trees in a number of ways, including the provision of shade which keep our rivers cool during the summer months. Salmon and trout in particular require cooler water temperatures. In recent years the Loughs Agency have recorded water temperatures of 27°C in tributaries of the Foyle where no trees are present along the river corridor. An increase in woody debris within the river channel also provides food for invertebrates which fish feed on and can provide refuge from predators."

The Burntollet River flows into the famous River Faughan. Both are designated Special Areas of Conservation and both sources of drinking water for the city and surrounding area. However, sediment levels – mainly due to bankside erosion – put a greater burden on the



STAFF: Woodland Trust and Loughs Agency staff involved in the tree planting.

water treatment process, reflected in a direct cost to the economy.

Roy Taylor, Catchment Manager for Northern Ireland Water, commented: "This is another example of how we can work effectively together to sustainably protect and enhance the water environment through managing the

Would-be tree planters elsewhere in Northern Ireland are asked to contact the Woodland Trust's woodland creation team. The charity will offer expert advice, guidance and, in some cases, funding. Telephone 0330 333 5303 or email plant@woodlandtrust.org.uk

Drumnaph Wood preparing for ash dieback

THE 31.9 hectare (ha) Drumnaph Wood near Maghera is owned by the Woodland Trust. The wider Community Nature Reserve comprises a range of important habitats, but fundamentally contains 14.7ha of ancient woodland.

The overall woodland area was extended within the trust's Woods On Your Doorstep' millennium celebration through the planting of an additional 11.8ha of new native woodland. About 4ha of this relatively young woodland is comprised predominantly of ash.

Ash trees are now under threat from possibly the single most devastating forest pathogen ever to hit the post glacial woodlands of Ireland.

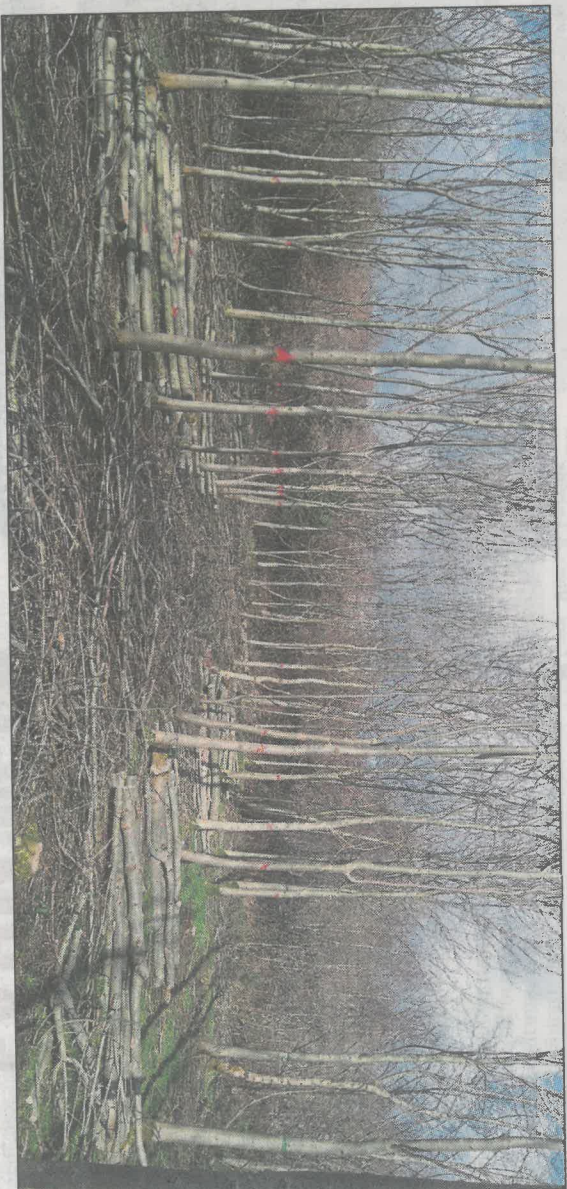
First discovered in County Leitrim in October 2012 on imported plant material, ash dieback, Chalara

or Hymenoscyphus fraxineus, is now steadily developing in the wider environment. This has led authorities in both NI and ROI to review their previous eradication policies – we are now moving to the stage of trying to manage the impact of the disease as best we can.

The young, single species stands of ash in Drumnaph are at a particular risk. Left untreated they would be at risk of very rapid decline. The Woodland Trust recognises this risk and has been taking steps to minimise the ecological impact of an anticipated future infection.

The recent work programme in the wood has two primary objectives:

- 1) Promoting the vigour of selected ash trees through thinning, and;
- 2) Diversifying the species composition of the predominantly ash stands through underplanting.



MARKED: Underplanting coupe marked out within the conventional thinning.

Crowded single species stands of young ash can lead to suppression and stress, leaving individual trees weak and vulnerable. Such woodlands are at a risk of 'total stand collapse' from an overwhelming ash dieback infection.

Conversely, large healthy vigorous individuals, that are growing freely, are better able to combat disease. The thinning at Drumnaph aims to promote the growth of selected individuals by releasing them from competition. The longer we can maintain the health of these trees, the longer we can maintain the ecological integrity and functions of the woodland.

Ultimately the long term resilience of the woodland lies in achieving a greater degree of species diversity. A group felling treatment was integrated within the conventional thinning, designed to provide the space necessary to plant a range of other native tree species such as

oak, hazel and birch.

If we can maintain the ash component of the woodland for as long as possible, while continuing to integrate a wider range of species and structural diversity, not only can we maintain and maximise the habitat value of the reserve for all of its flora and fauna, we can also give the ash trees the best possible chance of showing any natural resistance to the disease.

The management of the ash component of Drumnaph Wood is the subject of a cross-border research project funded by the Woodland Trust and Teagasc, the ROI semi-state agri advisory and research agency.

Ash dieback does not respect hard or soft borders!

It will have a major impact in native woodlands on the island of Ireland and throughout the wider cultural landscape. The Woodland Trust/Teagasc

initiative is currently the only formal project in Ireland looking at the practical management required to mitigate the impact of ash dieback in our native woodlands. Hopefully this work can inform woodland owners regarding the positive options available to secure the most productive future for their ash dominated woodlands.

Members of the public throughout Ireland can help in combating the increasing threat of tree pests and diseases by reporting symptoms via the online tool 'TreeCheck' – fill out the form at www.treecheck.net

Project leaders are: Jerry Hawe, B.Sc. (Hons), M.Sc. MSIF, Forestry Consultancy & Research jerryhawe@gmail.com and Dr Ian Short, B.Sc., M.Sc., MSIF, Broadleaf Forestry Research Officer, Teagasc Forestry Development Department.



RANGE: Felling coupe mulched and planted with a range of native trees.