



AN SLIOGÁN DUBH - FRESH WATER PEARL MUSSEL

PROJECT NEWSLETTER – AUTUMN 2013

Donegal County Council, in partnership with Northern Ireland Environment Agency (NIEA) - grant aided under the European Union's INTERREG IVA Programme, as part of the Environment strand, under Priority 2.2

Project Update

The pearl mussel project continues to make substantial progress in all work areas. As the project has unfolded and evolved we have responded to changing needs and opportunities in a number of ways, and with the approval of the funding agency SEUPB.

Because of a rather slow start with getting boots on the ground and the very poor weather in the early project stages, we have extended the period of operation by three months so that work is now scheduled for completion in June 2014. This extension will allow us to collect additional valuable data over another spring/summer season. In order to maximise the benefits of the work to date we will also analyse our datasets in detail to understand the role of various catchment activities and different land cover types in influencing the river and its pearl mussel habitats.

In association with DARD Forest Service, we are also availing of a unique opportunity to extend our forestry trials. We will now continue our monitoring in the felled coupe we have been studying to cover the next phase of the forestry cycle, replanting. This will indicate whether measures to prevent impact on the river continue to be effective during this afforestation phase. We will also monitor a second felling operation in another nearby forest coupe. The terrain and drainage system is different here and felling is taking place under a distinct operational scenario. Such

work will increase our understanding of the factors at play when operating in sensitive catchments and the effectiveness of the measures we take in preventing impact on the environment. Over the past quarter the project has successfully procured additional supplementary consultancy services to undertake these new tasks.

Many of our original tasks are also just about completed and the team are now entering a phase of preparing final reports. Close consultation with the project promoters, NIEA and Donegal



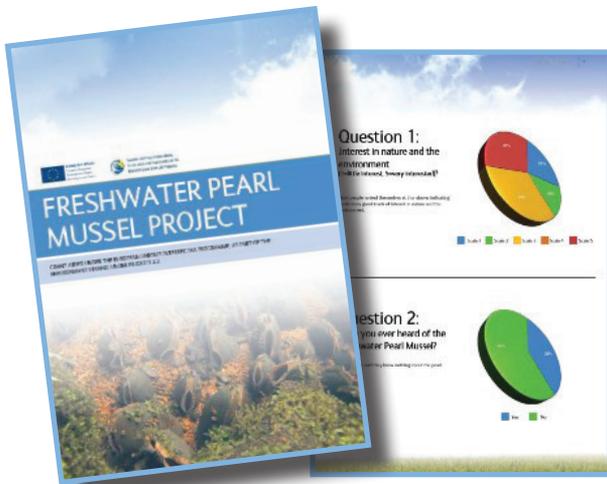
Felling Activities being monitored in the Davagh Forest



Project Update

County Council, and with many of the other stakeholder agencies is an essential part of this process to ensure that outputs are fit for purpose and to maximize their uptake.

The project prepared a short update (Keeping You in the Loop) for households involved in our previous survey of water usage. Distribution of this pamphlet in the study catchment provided an opportunity for team members to renew contact with residents and, if requested, to offer further advice on managing household water usage. In the very near future the project team will be asking for support and input from householders in a second catchment to repeat this survey. We are hopeful that we can get the same great response and greatly appreciate people taking the time to help us in our research.



We continue to monitor the effects of agricultural drainage and are currently looking at sediment movement in recently cleaned drains. In particular we are interested in the possible downstream effects on freshwater pearl mussel habitat where siltation can alter the quality of the riverbed substrate. We are measuring the amount of sediment that is being deposited in the pearl mussel's habitat using a grid of small containers that we have placed in the riverbed. These will tell us how much is being deposited and at what locations in the river channel.

In our previous Newsletter we reported that we had developed models showing areas in our catchments that were at risk of soil erosion. Of course models make predictions based on the information that we have used to program them, and we have recently been visiting sites identified by the models to confirm whether their predictions are likely to be correct. This will help us to refine the models and assess whether they are robust enough for general application in other freshwater pearl mussel catchments.



Monitoring sediment deposition in River Channel and Drain Cleaning



Conference Contributors and Proceedings

As promised in our last newsletter, we have now published the proceedings of the International Freshwater Pearl Mussel Meeting held last spring in Letterkenny on our website. They give a comprehensive indication of the range of work and measures being taken in pearl mussel

conservation throughout Europe. A list of the contributors is also available for anyone who would like to follow up with the experts on any of the themes presented.

Catchment Snapshot – Owenkillew

As usual in this slot, we provide a brief description of one of our pearl mussel catchments. In this edition we have selected the Owenkillew River Catchment.

The Owenkillew River rises in the Sperrin Mountains in County Tyrone, Northern Ireland, an area of outstanding natural beauty. It rises in the Davagh Forest, initially as the Davagh Water and then Broughderg River, and runs westwards past Gortin to Newtown Stewart, a distance of about 30km, where it joins the Strule which flows northwards to Lough Foyle. The catchment is part of the Northwestern River Basin District, and its headwaters about the Ballinderry River catchment (another pearl mussel river reported on in a previous newsletter) which flows to the east.

There are no large towns in the Owenkillew catchment, but many picturesque small villages like Plumbridge, Gortin and Greencastle occur. While the upland areas are predominantly acid grassland, heath and peatland, the Owenkillew and neighbouring river valleys support improved grassland. The main activities in the catchment are agriculture, forestry and quarrying.

The Owenkillew is a medium sized river, and its main tributaries are the Owenreagh and the Glenelly rivers. All

are fed by many steep streams spilling off the uplands and this gives the river a spatey character, rapidly flooding in response to rain but quickly returning to normal flows. The Owenkillew is considered to have very low nutrient levels in its upland reaches (which makes for good quality water and prevents excessive weed growth), although becoming slightly more nutrient rich as it flows through its middle and lower reaches.

The area also supports a wide range of natural habitats, some of which are protected, including the freshwater pearl mussel and its habitat. The pearl mussel population in the Owenkillew is mostly confined to its upper reaches and is estimated to number in excess of 10,000 individual mussels, the biggest population in Northern Ireland. A significant number of freshwater pearl mussels also live in the Owenreagh, a tributary of the Owenkillew. Other important wildlife species that may be spotted along the river include the otter, kingfisher and dipper.

The valleys are associated with several woodlands which in combination represent one of the best examples of

FURTHER INFORMATION / CONTACT DETAILS

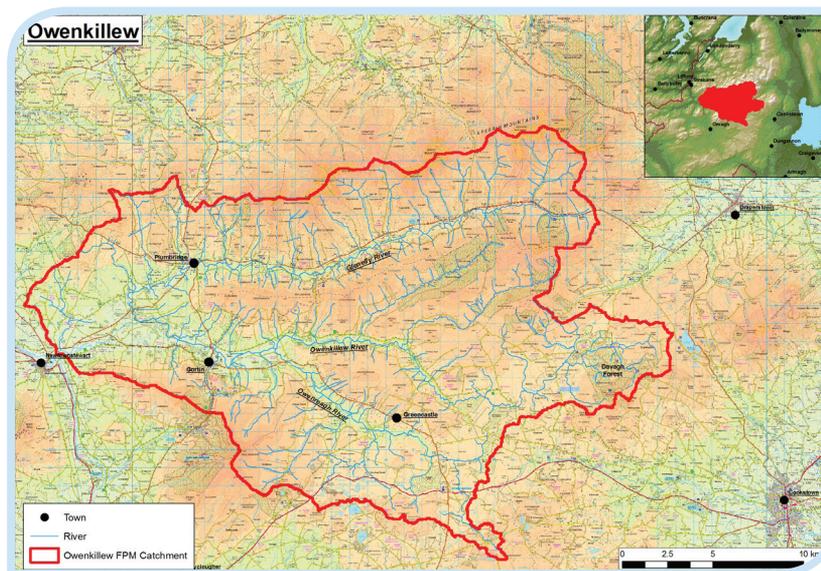
The FPM project is being promoted by Donegal County Council (www.donegalcoco.ie) in partnership with NIEA (www.doeni.gov.uk/niea/), and delivery of the project is through a full time project coordinator and consultancy services provided by RPS (www.rpsgroup.com/). Further information is available through our website www.freshwaterpearlmussel.com where you may also wish to leave a comment or request information.

You can also contact the Project Coordinator:

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The Special EU Programmes Body is a North/South Implementation Body and is responsible for managing the INTERREG IV programme under which the FPM Project is funded. For more information on the SEUPB please visit www.seupb.eu



Owenkilliw catchment

old sessile oak wood in Northern Ireland. The woods feature waterfalls, gorges, cliffs and scattered boulder scree, all of which contribute to the diversity of the woodland communities. The canopy is generally dominated by sessile oak, but downy birch, rowan, holly and hazel all add to the woodland splendour. Some alien, albeit pretty plants however are less welcome, and the Himalayan Balsam has become established in the catchment. While it lines the banks with pillows of pink blossoms in the summer, this plant can result in erosion of river banks when it dies off in the winter months.

The Owenkilliw holds some good brown trout, but is better known to the angler for its run of sea trout, and particularly grilse and salmon. The headwaters in this catchment are significant spawning sites (about 5% of all redds counted) and hold some of the highest densities of salmon fry in the Foyle system.

Learning Material

There has been a great reaction to our books for young readers, Maggie – My Story and the Pearl Mussel Activity Book. The books in this section were prepared for younger readers to introduce them to the pearl mussel and its environment, and to make them aware of our role in helping to protect it. While not specifically prepared to align with school curricula, the books are broadly targeted at 11 to 14 year olds, i.e. curriculum stage 3 in Northern Ireland, or 5th and 6th classes in Ireland. Some curriculum links and learning topics are listed on the pearl mussel website.

Now that schools are back after the summer break we expect to see further demand for copies. While we still have a few hard copies left, the books are also available for download on our website. If a high quality copy is required for printing locally we can provide a high resolution pdf file. You can contact us at info@freshwaterpearlmussel.com to request copies or further information.

