

Pearl Mussel Project News

Farming for nature in freshwater pearl mussel catchments



Issue no.6 Dec 2022



Bundorragha farmer training with Ailbhe Douglas LAWPRO

Pearl Mussel Project Farmer Training 2022

We would like to thank all the farmers who attended the annual farmer training sessions this year.

We would also like to thank the Local Authorities Water Programme (LAWPRO) team for attending the sessions held in the North West catchments. They explained all about the work they carry out and gave a great insight into the water quality levels in each catchment.



Glaskelán farmer training with Patsy Ryan & Patrick Rafferty LAWPRO

Farm Assessments 2022

Farm advisors have had a busy season scoring over 470 farmer's land this summer. We are currently working on calculating farmer payments for this year based on the results of these assessments. We hope to be able to issue most payments before Christmas.

New Pearl Mussel Catchment Officer

Hi Everyone

My name is Gerard Caden and I come from Co. Mayo. I have recently started working as a Catchment Officer with the Pearl Mussel Project and will be covering the Galway, Mayo and Donegal Catchments. I have spent the last number of years working in Scotland as an Agricultural Officer for the Scottish Department of Agriculture. My time in Scotland has brought me from the Scottish Lowlands all the way to the Shetland Islands, inspecting agri-environmental schemes as well as completing cross compliance checks.

Before moving to Scotland, I spent time working as an Agricultural Development Officer and as a Soil Technician with Teagasc. This allowed me to help farmers across Mayo meet their scheme objectives.

I come from a farming background and have been actively involved on the family suckler farm from a very young age. I am very enthusiastic about all things farming and environment related, and I am hoping to bring the experience I gained over the years to my new role.

Having spent some time visiting the Pearl Mussel Catchments, I can see the good work farmers have completed over the last few years. I'm looking forward to visiting more farms and being able to liaise with and support farmers and their advisors for the rest of the project.

All the best,

Gerard

Pearl Mussel Advisor Profile

Fionán Crowley, who works with many of our farmers in Co. Kerry, is the Pearl Mussel Advisor featured in this edition.



Fionán Crowley, PMP approved farm advisor

I graduated from UCD in 2013 with a degree in agri-environmental science. I now live and work in Killorglin, Co. Kerry, where I work as an ag advisor while also helping out in the family drapery business. I can often be found carrying out my office work by throwing my laptop up on the shop counter. I work for farmers in the 3 catchments in Kerry. My interest has always been more in the environmental side of my work rather than the agricultural and have always enjoyed working in the different environmental schemes.

In my 8 years of work, I think the biggest stumbling block with getting farmers to farm more with nature in mind is that farmers feel they don't have the freedom to make decisions in relation to running their own farm for themselves. They are often left frustrated that they are being talked at and being told what they have to do. It's only human nature that you are

more than likely not going to do something if you are constantly forced to do it and don't have the choice to make your own decision. I think by far the biggest advantage of a locally lead results-based approach is that farmers are consulted with, educated on the goal of the scheme and ultimately given the freedom to make the decisions for themselves. It's impossible to create something that will please everyone but from the schemes I've come across the Pearl Mussel scheme has taken great strides in bringing farmers with them and providing education for both advisors and farmers. This brings about a change in outlook and approach for both advisor and farmer which I believe should be the primary aim of any environmental scheme, as it will continue providing benefits for much longer than actions that last just 5 years.

It's great to see the change in farmers going from being concerned with being allowed to continue to drain land to taking the initiative themselves and asking if it's possible for them to fence off drains, create crossing points and how to block them. I have learned a lot myself as an advisor through these schemes. I have learned the most from walking land with farmers who have an unrivalled knowledge on the local environment and how it is changing.

There is no hiding that attitudes across the board must change to produce the results that both the local and global community need to avoid climate disaster. Farmers have a huge role to play in achieving this and I fully believe they are intent on doing their part for the benefit of their community, to create a more sustainable way of food production that works with nature. I'm under no illusion that any future schemes have to make monetary sense for applicants, but putting that to one side the central focus of any future environmental scheme has to be to educate farmers, advisors and everyone involved.



Two ways of understanding watercourse quality in a results-based agri-environment scheme

Poppy Overy is an IT Sligo postgraduate student working alongside the Pearl Mussel Project (PMP) to explore whether paying for high quality peatland and grassland not only benefits water quality and the Freshwater Pearl Mussel, but also other parts of the ecosystems.

RAPID VISUAL EVALUATION

Freshwater pearl mussels (FPM) need very high-quality water, with low levels of nutrients and sediment. As part of the whole-farm assessment, the Pearl Mussel Project (PMP) have developed a rapid, visual evaluation of quality for small on-farm watercourses. The score looks at the pressures/impacts present, such as free flowing drains, livestock damage, and the addition of nutrients or sediments. Each small watercourse is assigned a score based on the level of risk it poses to the quality of FPM rivers. There are four possible scores: poor, inadequate, good and excellent. For this research we combined these scores into two groups watercourses 'At Risk' and 'Not at Risk'.

THE ROLE OF MACROINVERTEBRATES

The PMP visual assessment can be carried out more rapidly than the water quality monitoring undertaken for the Water Framework Directive (WFD), which samples both water chemistry (pH, oxygen levels, amounts of suspended solids etc.) and the biodiversity present in waterbodies. One of the biodiversity groups sampled for the WFD surveys are the small aquatic macroinvertebrates which live in the bed of rivers, such as snails, fly larva, beetles, worms, etc. These animals have different tolerances for watercourse quality, e.g. mayfly and stonefly larvae like clean, unpolluted water; whereas some snails and worms can happily live in lower quality. To determine the quality of a watercourse the macroinvertebrates are collected using a method called kick sampling, then identified and counted.



Poppy Overy carrying out river assessments

RESEARCH

Our research has investigated the connection between the WFD macroinvertebrate assessments and the PMP's visual assessments for watercourse quality. We selected small watercourses, scored by the PMP from across three catchments, the Bundorragha, Dawros and Owenriff. We determined the quality of these streams using the WFD survey method and compared the results with the PMP scores. Initial results show similarities in the assessment of small watercourses using the PMP visual assessment and the aquatic macroinvertebrates. This means that the visual assessment is able to detect potential risks to water quality at a landscape scale. Both assessment methods require different resources, skills and produce complimentary information creating a potential 'match made in heaven' when utilised for their strengths! Having the detailed macroinvertebrate data from the streams also gives us a greater understanding of the ecology of the streams and will assist in building baseline information for future water quality monitoring of these smaller streams.

Pearl Mussel Project Updated Payment Rates

Following a review of the project budget, the Pearl Mussel Project results-based payment rates for 2022 have been revised with a view to increasing payments for higher environmental delivery.

By increasing rates in payment band A, all participants in the program will benefit regardless of farm size, while those with higher scoring plots in the first 30ha will benefit most.

Payment rates (2022) according to quality per ha (€)			
Plot Score	A 0-30ha	B >30-70ha	C >70ha
<4	0	0	0
4	89	17	5
5	103	20	6
6	117	22	7
7	176	33	10
8	234	44	14
9	264	50	15
10	293	55	17

ACRES Co-operation Projects & Pearl Mussel Project EIP

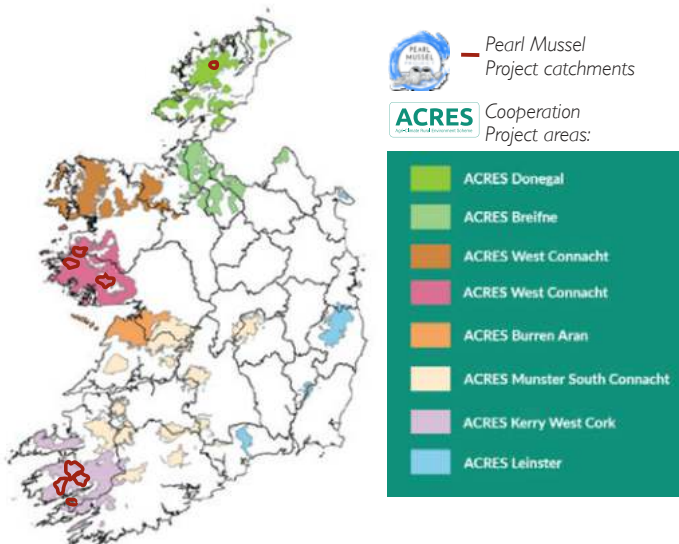
All eight Pearl Mussel Project catchments occur within ACRES Co-operation Project zones. This is recognition of the high nature value farmland that occur in these areas and provides an opportunity for farmers in these areas to earn up to €10,500 per annum through a hybrid results-based scheme. The Pearl Mussel Project is pleased to see some key aspects of our project incorporated into ACRES Co-operation, including:

- The results-based payment model whereby farmers payments will reflect the environmental quality of their farmland.
- Farmer and advisors being provided specialist supports by a local project team.
- The inclusion of farm and landscape actions that will address local environmental targets.

The Pearl Mussel Project Team will work with the local Co-operation teams to ensure a smooth transition. All PMP farmers can apply to join ACRES and will be given priority entry. During 2023 PMP farmers participating in ACRES will not receive a results-based payment from PMP.

Mary McAndrew, our former Catchment Officer for the North West is leading the ACRES West Connacht Cooperation Project Team. Contact details of the three Co-operation Projects overlapping with Pearl Mussel Project Catchments are provided below.

MAP OF COOPERATION PROJECT AREAS & PEARL MUSSEL PROJECT CATCHMENTS



ACRES PEARL MUSSEL CO-OPERATION PROJECTS CATCHMENT

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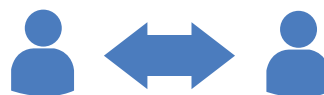
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Keep in touch!

Don't forget to check our project website (www.pearlmusselproject.ie) for news and updates. We also have active Facebook (@pearlmusselproject) and Twitter (@pearl_mussel) accounts where we post regular updates, so follow us there if you don't already.

On our website you will also find a range of videos that we have created which may be of interest to you or someone you know.

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