



“Restoration of the Lower Shannon SAC (Mulkear River) for Sea Lamprey, Atlantic Salmon and the European Otter”

Press Release

17th July 2012

Good News on Sea Lamprey Passage in 2012

MulkearLIFE's work in assisting sea lamprey passage got off to an excellent start in the first half of 2012 and has continued into July 2012. The objective of the project's work with sea lamprey is to manage upstream passage above man-made barriers on the Lower Mulkear and open up additional prime habitat. In 2011, MulkearLIFE had installed fish passes on both Annacotty and Ballyclogh weirs. These passes were specifically designed to improve sea lamprey passage and were shown to be remarkably successful during the 2011 spawning season.

In preparation for the 2012 season, MulkearLIFE, with the support of IFI colleagues, undertook a major clean-up of and repair to the sea lamprey passes on Annacotty weir. The clean-up operation was designed to remove moss, dirt and grime which has built up of the winter months. The repair work involved the replacement of a number of the ABS plastic sheets which make up the sea lamprey substrate (fish pass). Once this work was completed the galvanised steel sub-frame and sheets were once again bolted onto the face of the weir. This work was carried out in late March after several weeks of very low rainfall. It meant that water levels in the river were very low which greatly helped facilitate access to the fish passes.

With the upgraded fish passes in place and ready for use, the project awaited the annual migration of sea lamprey back into the system. Sea lamprey usually spawn from May through July once water temperatures reach 15°C or above. With a very fine Spring and settled mostly dry weather in March, April and May water temperatures began to reach their optimal level to trigger the reappearance of sea lamprey. As MulkearLIFE celebrated the 20th Anniversary of the LIFE programme with various events throughout May 2012, the first indications that sea lamprey had returned were noted on the 15 May. As the Minister of Finance, Michael Noonan TD, launched the 'Mural of LIFE' in Annacotty village on the banks of the Mulkear River, sea lamprey were in evidence below the bridge – perhaps watching the LIFE festivities above!

Throughout this period, MulkearLIFE's Project Officer, Mr. Glen Wightman, monitored water temperature and periodically checked amongst the rocks downstream of Annacotty and Ballyclogh weirs for sea lamprey. Sea lamprey in the Mulkear system are noted to hide during the day. Spaces between rocks provide excellent cover.

Thus with the LIFE celebrations completed, MulkearLIFE recommenced this year's monitoring of passage. While migration has been noted in daylight hours, they tend to primarily migrate under the cover of darkness or semi darkness hence the unusual timeslots for MulkearLIFE's observational monitoring work. Early morning monitoring sessions were undertaken from 05.00am to 9.00am to see the extent of usage and the level of upstream passage. The first two days (May 25th & 28th) of monitoring focused on Annacotty weir, the first man made barrier the sea lamprey encounter. While the period of monitoring has been limited, the results have been extremely encouraging. A total of 585 lamprey were observed attempting to ascend Annacotty weir. Of these 50% used the lamprey passes. 34% used the face of the weir and 16% used the Denil fish pass (central fish pass). A minimum of 34 successfully ascended the weir during the monitoring period all but two utilising MulkearLIFE's sea lamprey pass.

During both the 2011 and 2012 migration season, it has been noted that the bulk of the sea lamprey successfully ascending the weir have done so during the first hour (05.00 to 06.00hrs) when light levels are low. The numbers

attempting to ascend tends to decline as light levels increase. While MulkearLIFE has undertaken a considerable amount of night time monitoring (20.00 to 24.00hrs) with significant numbers monitored, it can be safely assumed that large numbers of fish are ascending the weir under the cover of darkness (24.00 to 05.00 hrs). This is something MulkearLIFE will hopefully verify later in the season if water levels fall on the main stem of the Mulkear.

With the Project Team satisfied with the success rate at Annacotty weir attention turned to Ballyclogh weir. A significant modification to the sea lamprey pass was designed and manufactured and was ready to be installed. The site was prepared for installation and the weir partially damped. Unfortunately, without any advance warning, the weather broke on the 1st June and a pattern of almost weekly flood events, some extreme, have occurred since. Hence the modification has not yet taken place. Despite this, two mornings of observational monitoring at Ballyclogh weir (May 29th & 30th) indicated a minimum of 10 lamprey passing the weir in the first hour. Once again, there was a significant decrease in passage as light levels increased. A minimum of 21 sea lamprey were observed ascending the weir. It is the belief of the Project Team that significantly more sea lamprey are passing the weir under the cover of darkness.

With lamprey successfully passing both major obstacles on the Mulkear River, The Project Team set about conducting spawning / redd surveys to determine where in the catchment sea lamprey were utilising. A redd is a depression in the gravel of the river created by the lamprey using their oral disk and is where the eggs are laid by the female and fertilized by the male lamprey. Please see a redd being constructed here: [Video Gallery](#)

A number of redds were located just below the Mulkear – Killeenagarriff River confluence before the June rain began to fall. Observational monitoring work and spawning / redd survey work has since this date been primarily restricted to the upper catchment where the smaller streams are the first to recede after rain events.

Extensive surveys in the Newport, Annagh and Bilboa Rivers have documented sea lamprey spawning and sea lamprey redds. Due to the vastness of catchment and high water it is not possible to survey all areas but spawning activity is more than likely occurring throughout the catchment. Redd surveys on June 25 & 26 documented 20 redds, 3 live sea lamprey and one carcass in the Annagh and Bilboa rivers. Additional surveys on July 10 to 12 documented another 24 redds and 5 live sea lamprey in the Newport and Annagh rivers. To date a total of 50 redds have been documented above Ballyclogh weir. This level of sea lamprey spawning in various tributaries of the catchment represents a major project milestone for MulkearLIFE, Inland Fisheries Ireland and our project partners, the OPW and Limerick County Council, together with the National Parks and Wildlife Service, who act as a project co-financier. It is also a good news story and a significant development in terms of sea lamprey conservation in an Irish and European context.

It has been an extremely difficult season for MulkearLIFE's sea lamprey monitoring work. For over six weeks (1st June to 16th July 2012) the main stem of the Mulkear River has either been in flood or extreme flood. Indeed the flood events, on the 16th and 17th and on the 27th and 28th June, are believed to be the amongst the most extreme summer flood events in living memory. Monitoring on the main stem has essentially been confined to a two-week period (15th May to 30th May 2012) from the time the fish re-entered the system until the weather broke. It is unclear at this stage what impact, if any, the severe and continual flooding has had on sea lamprey passage and spawning in the main stem of the Mulkear. This will be determined over the course of the summer and in the longer term. It is unknown if lamprey are ascending during high water but the fact that MulkearLIFE has discovered sea lamprey redds throughout the catchment is a positive sign. This may well indicate that sea lamprey are still ascending the weirs and that their migration, while perhaps more difficult, is not impeded.

With respect to actual sea lamprey, it is likely that the flooding events, may have washed eggs downstream. Entire redds may well have been lost completely, especially on the main stem of Lower Mulkear, during the extreme flood events as the river gravels shift. This is however, all part of the rivers ecosystem, and sea lamprey themselves play an important role as ecosystem service providers in cleaning gravels during their own redd construction work. Clean gravels are of critical importance for a great many of species. Lamprey species have been around for 450 million years and have survived many floods. Sea lamprey in particular have evolved and adapted to their environment over time. MulkearLIFE is very confident that the Sea Lamprey in the Mulkear catchment will survive this summer's

unprecedented level of flooding and will continue to prosper and thrive in terms of both their numbers and territorial range.

Further information regarding the project's work with Sea Lamprey may be viewed on this website including extensive video footage in the projects Video Gallery here: [Video Gallery](#) and on the project's YouTube Channel [MulkearLIFE YouTube](#)

Notes for Editors

1. High Resolution Digital Images are available to accompany this Press Release.
2. Interviews can be arranged with the Project Manager by using the contact details below.
3. MulkearLIFE is a new €1.75 million European Commission funded LIFE Nature project working on the restoration of the Lower Shannon Special Area of Conservation (with a focus on the Mulkear River catchment) for Atlantic Salmon, Sea Lamprey and European Otter. Further details may be viewed on the project website www.mulkearlifeproject.com
4. Inland Fisheries Ireland (Limerick) is lead partner together with the OPW and Limerick County Council. Additional funding support comes from National Parks and Wildlife Service. Other supporters include Teagasc, IFA, ICMSA, and local angling groups.
5. The project is one of the first and most important integrated catchment management projects in Ireland. It is a flagship EU LIFE Nature project –covering some 650 sq km which contain a variety of habitats and protected species. Much of the area is designated as a Special Areas of Conservation (SACs) under the EU Habitats Directive and forms part of the Natura 2000 Network.

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