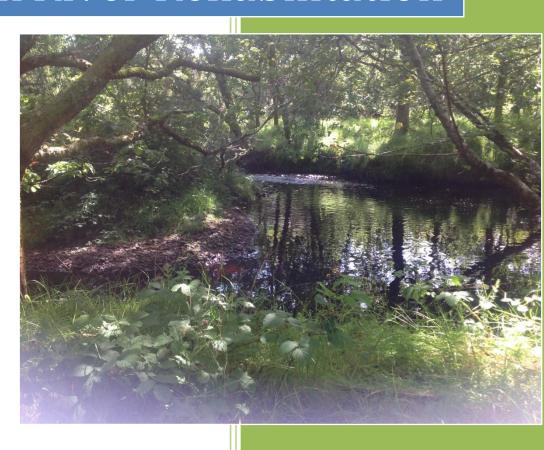
2014 Report

Glenturk River Rehabilitation



Bangor Angling Club
Bangor Erris, Ballina, County Mayo
11/21/2014

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Introduction

The main objective of this project is to stimulate and increase the production of sea trout in the Glenturk River by the implantation of its natural habitat. This project was initiated by Bangor Angling Club in conjunction with Inland Fisheries Ireland with the view to the revitalisation of Glenturk Tributary River by the control and removal of invasive species.

Scientific investigation conducted on Glenturk River by Dr Paddy Gargan identified serious restrictive spawning for Sea Trout largely due to over shading within the catchment. This decrease is also evident from fish counter data which illustrate a gradual decrease of sea trout over the last number of years. A marked decrease in the number of Sea Trout in Carrowmore Lake was also noted by local and Tourist anglers.

Based on Dr. Gargan's report, Bangor Angling Club has decided to invest in the conservation of sea trout in tributaries of the Carrowmore Lake catchment area with regards to the Lake's survival as a viable Sea Trout Fishery.

In the last two decades the Glenturk River has become severely invaded by the Rhododendrons species which have completely cut it off from direct sunlight causing the demise of spawning of sea trout in the river.

This report will outline:

- Location and description of the Glenturk River
- Research conducted prior to conducting works
- Details of methods used to execute the works
- Future Plan.

Reason Glenturk River was chosen:

- Dense overgrowth of invasive species
- Diminishing spawning of sea trout

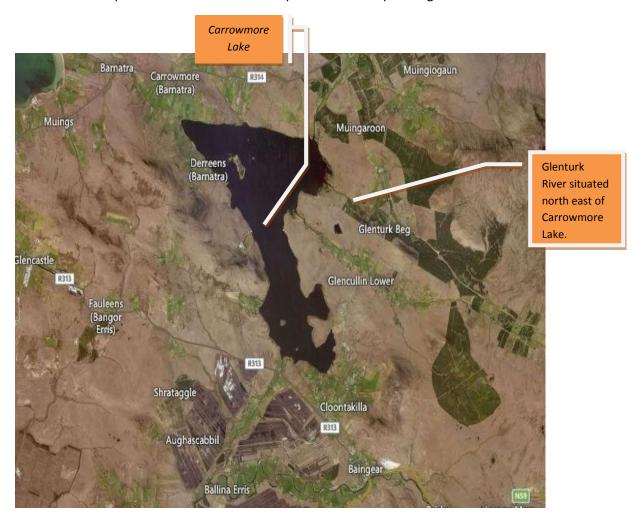
Description and location

Glenturk River is a tributary of Carrowmore Lake and it feeds the lake on the East from the Glenturk More and Glenturk beg mountain range. Glenturk River is flanked primarily by dense forestry and marginal agricultural lands.

Carrowmore Lake is located 2km North of Bangor Erris in the parishes of Kiltane and Kilcommon County Mayo between the villages of Bangor Erris and Barnatra at the southern end of Broadhaven Bay. This freshwater lake is over four miles long and almost 3 miles wide at its widest point and has an approximate area of 1000 hectares of fishing water.

Carrowmore Lake is renowned for being one of the most productive Spring Salmon fisheries in Ireland along with sea trout and native brown trout with fishing available from $\mathbf{1}^{st}$ January right through to the $\mathbf{12}^{th}$ of October

Carrowmore is not a deep lake and it provides the drinking water for the whole of the Erris area. It is fed primarily by three main tributaries namely Glenturk, Glencullen and Barnatra along with several others and it drains into the Owenmore River via the Munhin River on its way to Blacksod Bay. Carrowmore Lake is dependent on its tributaries to provide crucial spawning beds for its fish stocks.



Carrowmore Lake is Fed by Glenturk Tributary from the east.

Research

Extensive research was conducted in advance of appointing a contractor as to insure that methods used would prove successful. Representatives of the club visited a site where similar works were conducted in the past; namely the National Parks and Wildlife Centre in neighbouring Ballycroy where results of successful treatment to the rhododendrons were evident.

Online research of other case studies throughout Ireland and abroad lead the club to conduct independent experiments of their own as to determine the most sustainable methods available to them.

Options available were as follows:

- 1. Foliar chemical application
- 2. Stump treatment with chemical on removal
- 3. Stem and trunk chemical injection
- 4. Base bark removal and chemical treatment
- 5. Notching and chemical treatment

Foliar application was omitted due to the proximity of application to the water course. Stump treatment was omitted due to the large amount of cutting and removal that would be required pre treatment and the other three options were examined.

Option No.5 (notching and chemical treatment) proved to be the most successful and practical with regards to time taken and quantity of chemical being used.



Picture No.01 above identifies notching & scaring to the tree trunk by means of chainsaw pre chemical application



Picture No.2 above identifies stripping of the bark from the tree trunk pre application of chemical



Picture No. 3 above identifies the boring and chemical injection of the tree trunk.

Method

Bangor Angling Club representatives in conjunction with the Local IFI officer devised a plan of work that would impose the least impact on the surrounding areas with regards to flora and fauna, courses working with neighbouring water and This plan was to put a treatment programme in place that would eradicate the rhododendrons and minimise their existence and subsequently their negative impact on the spawning beds.

As the nature of the works involved was going to be challenging due to the vast density of the bushwood and overgrowth an experienced contractor would be essential to conduct these works. Contractors were shortlisted locally with William Sweeney & son's being appointed to conduct the works. William Sweeney had conducted similar works for the NPWS throughout Mayo and therefore was appreciative of the nature of the works require by Bangor Angling Club.

A decision was taken to commence the works along the southern side of the Glenturk River working from North West end heading east rising up towards Glenturk Beg for approximately a 2.7km stretch of river. The main reason for commencing in this location was to immediately allow the river benefit from the most available sunlight to the river bed from the south facing side. Other reasons were due to the dry spell where water levels in the river were low allowing easier access to the operatives conducting the works along with minimising any chance of chemical run off into the water course.

A method statement was put in place with procedures for the contractor to adhere to. The club appointed a one point of contact representative to coordinate with the contractor and the landowners and liaise with IFI officer and representatives of the Angling Club.

One of the utmost challenges was to gain access through the dense bushes of invasive species as to be able to treat them correctly. The contractor's operatives had to cut their way in through narrow tunnels in order gain access to the centre of the bushes to conduct their work. A chainsaw was then used to cut notches and scars into the trunks and stems of the bushes with the chemical roundup being applied directly afterwards. The instant direct application of the chemical is of highest importance as to prevent the natural resin in the wood forming a seal to its surface and block out the chemical from being absorbed into its root system.



Picture No.04 above identifies density of the rhododendrons' and Narrow access tunnels



Picture No.5 above identifies application of chemical to notches.



Picture No. 6 above identifies Notching and scaring of trunks prior to chemical application.

Future Plan

Bangor Angling Club intends to progress further with tributary Rehabilitation works about the Carrowmore Lake and the Owenmore river catchment areas. Bangor Angling Club deems it necessary to implement a long term strategic plan for the conservation of fish stocks in its lakes and rivers and for enhancement of local tourism.

Bangor Angling Club intends to continue this rehabilitation of it tributaries and having successfully eradicated and controlled the rhododendrons problem, the Club will then concentrate on remedial work on the bed of the rivers wherever necessary. This will include the rehabilitation of spawning beds, provision of deflectors and glides, Etc.

Works will only proceed in conjunction with IFI and on the best scientific advice available through IFI.

Appendix A

Selection of pre works Photos



Overshading of the river by invasive species.





Appendix B

Selection of Mid & Post works Photos



Operatives working through dence rhododendrons notching them with a chainsaw and applying chemical.



4 weeks post treatment clear evidence of dieback.



4 weeks post treatment clear evidence of dieback.