

Salmon Watch Ireland

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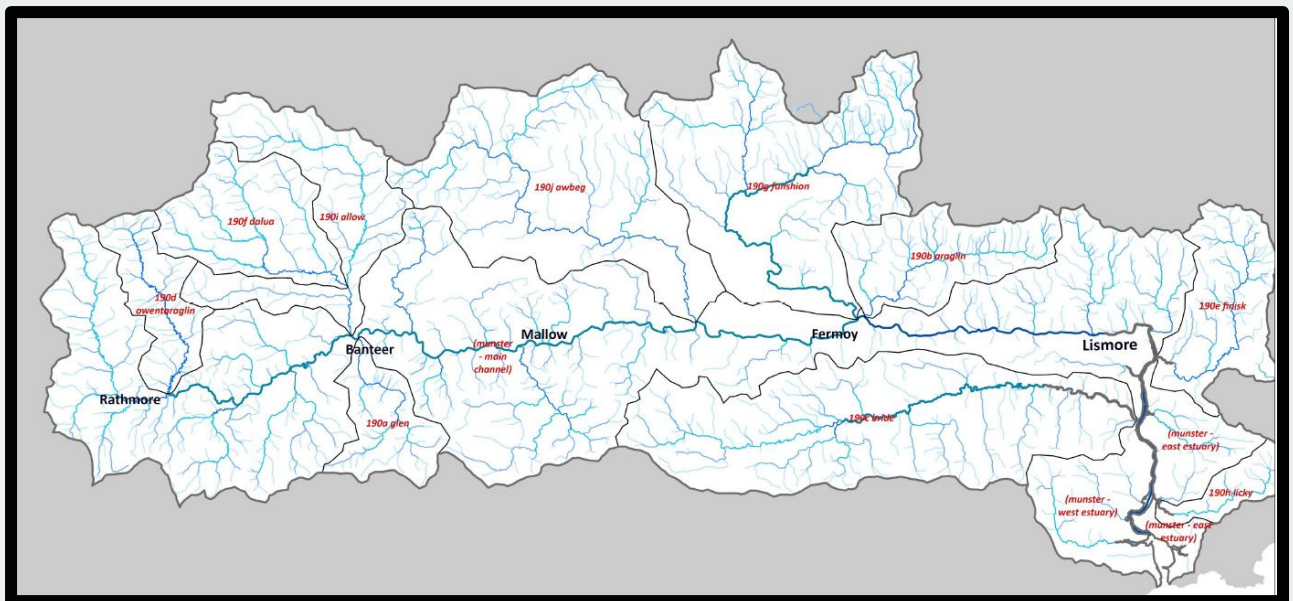
Munster Blackwater Salmonid Genetic Study

Anglers Asked to Support Major Blackwater Research Programme

Introduction

Salmon Watch fully endorses and strongly supports the Munster Blackwater Salmonid Genetic Study being undertaken by Inland Fisheries Ireland. The project is being led by Dr. Karen Delanty, IFI.

This important project represents a major opportunity to significantly enhance our collective understanding of salmon, sea trout and brown trout populations throughout the Blackwater catchment. The information gathered through this work will help build a clearer picture of how different tributaries and production units contribute to the overall fishery, while also identifying areas that may not currently be achieving their natural potential.



The knowledge gleaned from this study will be of enormous value to all those with an interest in the future of the Blackwater — anglers, clubs, fisheries managers, conservation groups and local communities alike. By improving our understanding of stock structure, fish movement and tributary importance, the project will help guide future conservation, habitat improvement and fisheries management decisions across the catchment.

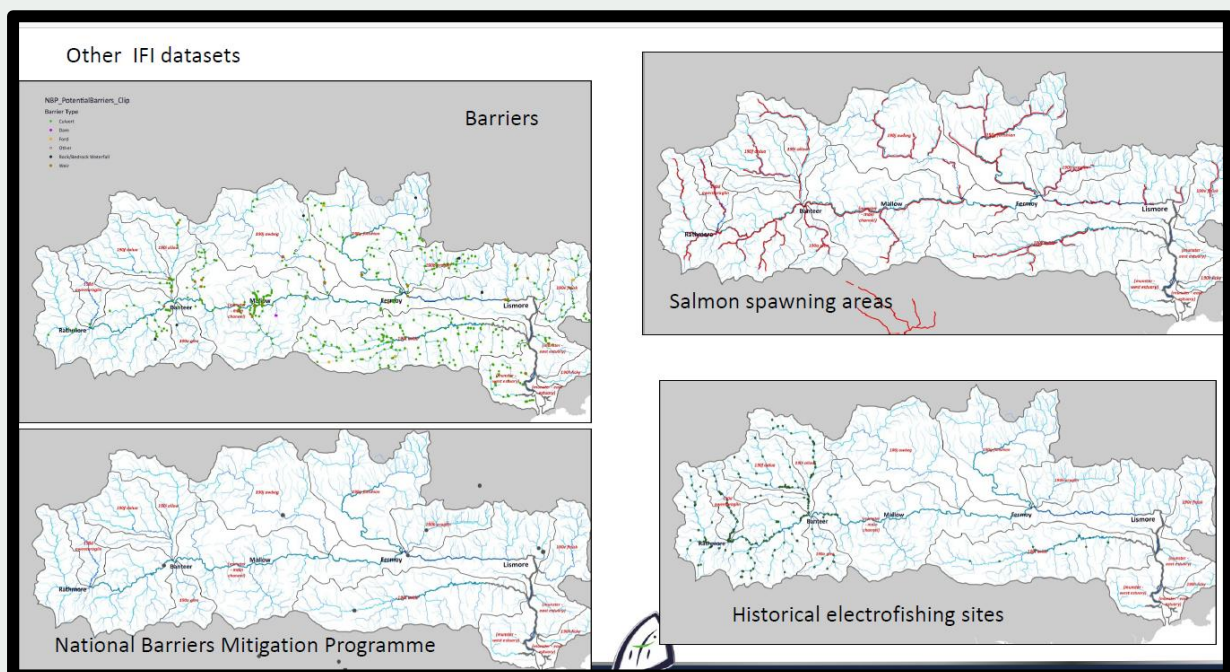
Salmon Watch encourages all anglers fishing the Blackwater system to support the programme fully by submitting scale samples from salmon, sea trout and brown trout throughout the season. Every sample collected will contribute towards a stronger scientific understanding of this unique and important river system.

The Project

A major fisheries research programme is now underway across the Munster Blackwater catchment, and anglers are being asked to play a central role in its success.

Inland Fisheries Ireland is currently carrying out the Munster Blackwater Salmonid Genetic Study, an ambitious scientific project aimed at understanding the genetic makeup, movement patterns and contribution of salmon, sea trout and brown trout populations throughout the Blackwater system. The juvenile assessment will start in July through September on all tributaries and IFI will carry out electro fishing of all areas during this period.

The project will examine fish stocks from the main river and tributaries across the catchment and may ultimately identify which production units and tributary systems are making the greatest contribution to the overall fishery — and equally importantly, which areas may not currently be achieving their natural potential.



Why This Study Is Important

The Blackwater is a vast and complex catchment containing numerous tributary systems, each potentially supporting genetically distinct fish populations. Previous studies in other Irish catchments have shown that seemingly similar trout and salmon stocks can actually consist of multiple separate genetic groups, each contributing differently to the overall river system.

This work can help scientists and fisheries managers to:

- identify genetically important tributaries,
- assess stock diversity and resilience,

- understand how fish move through the catchment,
- determine which tributaries contribute most strongly to adult fish stocks,
- assess impacts of barriers, drainage, pollution, habitat degradation and historical stocking,
- identify areas where future habitat enhancement or investigative work may be needed.

Importantly, the programme aims to establish juvenile “baseline populations” throughout the catchment. IFI’s target is ideally to collect:

- 50 juvenile trout samples, and
- 50 juvenile salmon samples
from each sub-catchment, ideally across at least three sampling locations within each tributary system.

These juvenile baseline samples can then be compared with adult fish caught by anglers, allowing scientists to identify which tributaries contribute fish to the main river and how important each production unit is to the overall fishery.

Anglers Have a Vital Role to Play

A key element of the programme depends directly on anglers collecting scale samples from adult fish during the fishing season.

IFI is asking anglers to collect scale samples from:

- brown trout,
- sea trout,
- salmon.

Importantly, anglers are encouraged to collect samples from:

- as many fish as possible,
- all areas they fish,
- both the main Blackwater and tributary rivers.

Extensive geographical coverage across the catchment is essential if the study is to produce meaningful scientific results.

Sample Collection Is Simple



Munster Blackwater Salmonid Genetic Study

Taking a fish scale sample

Samples can be taken from **live or dead** fish. Scales should be sampled from left side just behind the dorsal fin and above the lateral line (see picture below). A sample of **10-15 scales** from each fish is required.

Wet hands and equipment when sampling live fish to minimise damage. Placing a wet hand or damp cloth over the head of the fish when being measured will calm it, allowing for the sample to be taken.

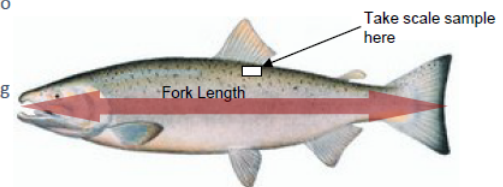
Place fish flat on top of the measuring device. If fish is being sampled on river bank to return alive, use a plastic sheet or landing net (if suitable) to protect its flank. Ensure tape is fully extended and taut **under** the fish to record length accurately. Measure from **tip of the snout** to end of **middle** rays of the tail (i.e. fork length; see picture below), preferably in millimetres.

Make sure to wash/clean sampling knife thoroughly between scaling each fish.

Take sample by running knife across sampling area in the direction of the head to loosen scales and then lift with the tip of the knife and transfer to scale envelope and leave to dry. Repeat until the desired number of scales obtained. Skin sections should not be cut out.

As far as practicable, scales should be spread across the inside of the envelope to prevent clumping.

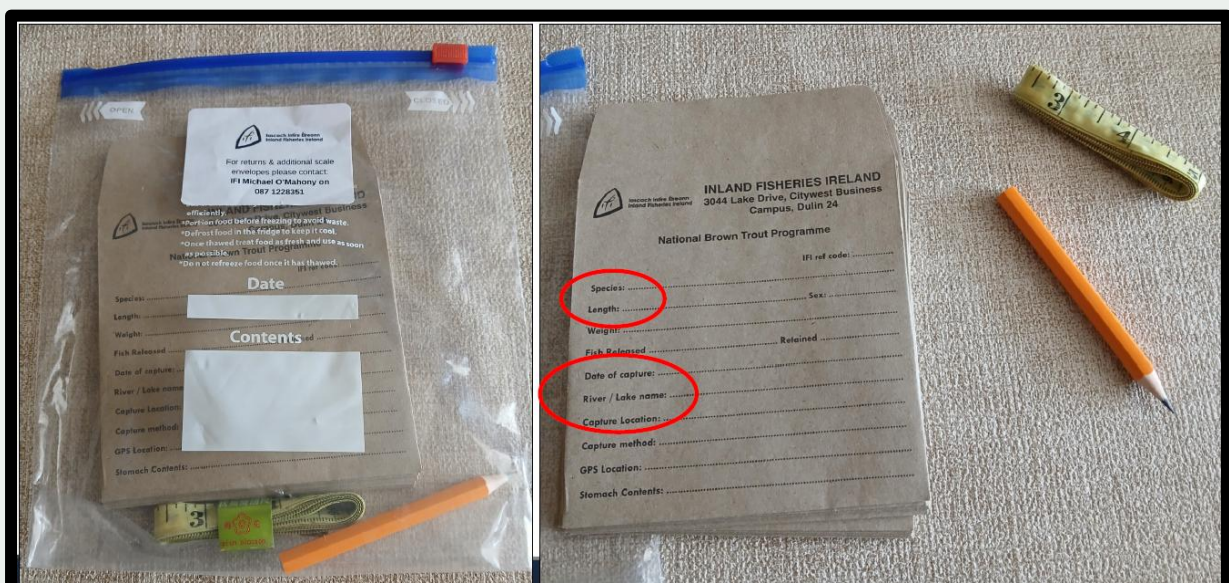
For live fish, rubbing mucus from the surrounding skin to the sampling area using finger will restore mucus to the area where the scale sample was taken.



Only a small number of scales are required from each fish:

- approximately 4–5 scales from larger fish,
- more from smaller fish if possible.

The scales are taken from the area just behind the dorsal fin and above the lateral line. Fish can be sampled safely and released alive when handled carefully.



Recording Accurate Information Is Extremely Important

To maximise the scientific value of each sample, anglers are asked to record as much information as possible on the sample envelope, particularly:

- fish species,
- fish length,
- river name,
- exact or approximate capture location,
- beat number,
- nearest bridge,
- local place name.

Even relatively small details may prove highly important when scientists later analyse fish movements and stock origin patterns across the catchment.

Storing and Returning Samples

Anglers are reminded:

- keep scale envelopes dry,
- do not freeze or refrigerate samples,
- envelopes may be returned in batches,
- samples should ideally be returned regularly throughout the season,
- all envelopes should be returned by early October if possible.

Additional scale envelopes are available through local angling clubs or directly from IFI staff.

Learning from Other Catchments

Previous genetic studies carried out by IFI in catchments such as the Suir, Boyne and Liffey have already demonstrated how valuable this work can be. These studies identified distinct genetic trout populations and showed how some tributaries contribute disproportionately to adult fish stocks in the main river systems.

The Blackwater programme may provide similar insights and could help identify:

- key nursery tributaries,
- migratory versus resident stock behaviour,
- vulnerable or underperforming populations,

- **priority areas for future habitat enhancement and protection.**

A Shared Responsibility

Healthy salmonid stocks are central to the angling heritage and ecological health of the Blackwater catchment. This project represents an important opportunity for anglers themselves to contribute directly to the future management and protection of the river.

Every scale sample collected adds to the overall picture.

Clubs, fisheries, ghillies and individual anglers are encouraged to actively support the project and promote participation throughout the season.

The stronger the angler participation, the more valuable and accurate the final scientific outcomes will be.

For further information or additional sampling envelopes, anglers can contact their local IFI office at 026 4122 or Fishery Inspector Michael O'Mahony.

The presentation by Inland Fisheries Ireland is available at the following Links:

