



Iascach Intíre Éireann
Inland Fisheries Ireland

Stock Management Plan

2019

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1 Introduction

In accordance with IFI's policies on both pike and trout, stock management operations are indicated for six lake catchments in the Western River Basin District (WRBD) and one in the Shannon River Basin District (ShRBD): Loughs Corrib, Mask, Carra, Conn, Cullin, Arrow and Sheelin, all of which are designated managed wild brown trout fisheries.

Gill netting and electrofishing (EF) operations are planned for all six lakes in the Western RBD and Lough Sheelin and details of the netting periods are tabulated below and include projected numbers of pike to be removed.

The operations will be carried out in accordance with IFI's Standard Operating Procedures (SOPs) for both electrofishing and gill netting operations. The electrofishing SOP has been amended to provide for the safe retention of some pike with a view to restocking in designated pike fisheries. The proposed pike removal programme detailed below was drafted having regard to the outturn of 2018 operations and also had regard to the recently published Pike Dietary Study *Pike (Esox lucius) in Ireland: Developing Knowledge and Tools to Support Policy and Management* study.

Particular regard was given to the study on co-existence of pike and trout carried out by Fitzgerald *et al.*, which described the attributes of a given waterbody in terms of the vulnerability of its trout stocks to predation by pike. Small, shallow waterbodies (<60Ha) with low complexity and poor connectivity are considered to provide conditions where salmonids are more vulnerable to pike predation. Lough Cullin appears to demonstrate some of these characteristics in that it is very shallow, with low complexity and trout angling on this lake has been noticeably poor over the last 3 – 4 years, suggesting that the lack of pike management carried out in recent years may have led to depletion in trout stocks due to increased predation.

With the exception of Lough Cullin where the number of days netting has been increased from 10 in 2018 to 16 in 2019. Gill netting effort on the other five lakes has been reduced by 20% on 2018 having regard to the introduction of the *Designated Salmonid Waters Bye-Law No. 964, 2018* which provides for anglers to take up to four pike per day of any size from the six lakes. The areas targeted for netting and electrofishing operations will also have regard to the findings of the Pike Dietary Study.

All staff handling pike will do so in accordance with IFI's SOPs and all have received fish welfare training. All euthanised pike carcasses will be appropriately disposed of with an approved fallen animal collection company.

It is difficult to estimate the outcome of such operations due to a range of factors, but the projected numbers of pike to be removed, as advised by very experienced senior personnel, have been included in the tables presented below.

2 Gill Netting Operations – Western Lakes

Netting will be concentrated into specific periods on each lake as detailed in the table below and will, with the exception of Lough Carra be completed during February and March. Operations on Lough Carra will run from mid-March to mid-April. In total 412 man days over 96 days will be allocated to netting operations compared to a total of 600 in 2018 which were carried out over 130 days. However, it should be noted that weather and other factors such as equipment and staffing levels can impact on these operations and it is unlikely that the full periods will be fished on each lake. In general, gill nets will be set along the margins of the lakes to intercept pike moving in and out of known spawning areas. All pike will be handled carefully quickly euthanised and all pike $\geq 85\text{cm}$ will be returned immediately subject to these being viable. Nets will be serviced daily and will not be set if there are concerns in relation to weather conditions the following day.

Table 1: Details of gill netting operations planned for 2019

Western Lakes - Electrofishing				
Lake	Period	No. Days	Man days	Estimated no of pike removed
Arrow	Feb-Mar	16	48	136
Conn	Feb-Mar	20	60	440
Cullin	Feb-Mar	16	48	160
Carra	Mar-Apr	12	40	208
Mask	Feb-Mar	16	88	400
Corrib	Feb-Mar	16	128	360
TOTAL				1704

3 Electrofishing Operations – Western Lakes

Electrofishing (EF) operations can be carried out year round subject to suitable weather (calm & dry) and water conditions. As such, the period identified for EF operations on each lake is much longer and can effectively run from 1 January to 31 December in any year. In reality, however, the number of days fished over a year will be less than that allocated to gill netting operations, and in total, 92 days (276 man days) have been allocated to EF operations in 2019 compared with 115 days (345 man days) in 2018. Operations have been scheduled to commence from February and will not be carried out on Lough Carra. However one tributary

stream at Lough Carra (Annie's Stream) will be electrofished during 2019. The table below quantifies the planned electrofishing effort and includes the EF operations planned for the lower reaches of a number of rivers within the lake catchments excluding Annie's Stream at Lough Carra where an additional 1 to 2 days will be allocated.

Table 2 Details of Electrofishing operations planned for 2019

Western Lakes - Electrofishing				
Lake	Period	No. Days	Man days	Estimated no of pike removed
Arrow	Apr-Sep	12	36	500
Conn	Feb-Dec	20	60	400
Cullin	Feb-Dec	20	60	400
Mask	Feb-Dec	20	60	800
Corrib	Feb-Dec	20	60	800
TOTAL				2900

In addition to targeting the nursery margins, EF will also be used to control predatory pike numbers in the lower reaches of a number of rivers. There is ample evidence of severe predation of salmon smolts and trout near and in the estuaries of nursery rivers and streams particularly when salmonids are migrating in March and April. Surveys on Lower Corrib in the past have shown that large numbers of salmon smolts can be cropped by pike on their way to sea.

Electrofishing operations on some river mouths will also be scheduled for early spring to militate against predation of migrating salmonids. The months of September and October can also be productive as juvenile pike will have reached a size large enough to be seen and picked up. The rivers identified for EF operations are listed below:

Lake Catchment	River
Corrib	Comamona
	Maam
	Cross
	Black
	Creggs
	Clare
	Woodstock
	Owenriff
	Drimneen
	Owenwee
Mask	Cloon
	Robe
Conn	Deel
	Castlehill
Cullin	Manulla/Clydagh
Arrow	Unshin



Electrofishing underway on the Robe River October 2018

The main focus of EF operations will be to target juvenile pike in the nursery areas around the margins of the lakes and also at the mouths of rivers at specific times.

Table 3 Projected size ranges of pike electrofished from the Great Western Lakes

Lake	No.	Projected size range
Mask	800	(650<15cm & 150>15<85cm)
Corrib	800	(650<15cm & 150>15<85cm)

Summary

The operation is projected to remove 4604 pike.

4 Lough Sheelin Stock Management Plan – 2019

In accordance with IFI's current policies on both pike and trout, stock management operations are indicated for one lake catchment in the ShRBD: Lough Sheelin which is designated managed wild brown trout fishery.

Gill netting and electrofishing (EF) operations are planned for Lough Sheelin and full details of the proposed start and finish dates are tabulated below and include projected numbers of pike to be removed.

Gill netting effort on Lough Sheelin has been reduced by 10% on 2018 having regard to the introduction of the *Designated Salmonid Waters Bye-Law No. 964, 2018* which provides for anglers to take up to two pike per day of any size from the lakes. The areas targeted for netting and electrofishing operations will also have regard to the findings of the Pike Dietary Study. All staff handling pike do so in accordance with IFI's SOPs and have received fish welfare training. All euthanised pike carcasses will be appropriately disposed of with an approved rendering company. It is difficult to fully estimate the outcome of such operations but the projected numbers of pike to be removed have been included in the tables presented below.

Gill Netting Operations

Netting will be concentrated into specific period on Lough Sheelin as detailed in the table below for 4 weeks (20 days). However it should be noted that weather and other factors can impact on these operations and it is unlikely that the full periods will be fished on Lough Sheelin. Nets will be serviced daily.

Table 4: Details of gill netting operations planned for 2019

Lough Sheelin -Gill netting				
Start	Finish	No. Days	Man days	Estimated no of pike removed
March	April	20	120	1000

Electrofishing Operations

In contrast to netting operations, electrofishing (EF) operations can be carried out year round subject to suitable weather (calm & dry) and water conditions. The months of September and October can also be productive as juvenile pike will have reached a size large enough to be

seen and picked up. The main focus of EF operations will be to target juvenile pike in the nursery areas around the margins of the lake.

The table below quantifies the planned electrofishing effort on lough Sheelin over 20 days during the months of August to October. As conditions need to be flat and calm the 20 days would be spread over the months and nets will not be set if there are concerns in relation to weather conditions the following day.

Table 5: Details of electrofishing operations planned for 2019

Lough Sheelin -Electrofishing				
Start	Finish	No. Days	Man days	Estimated no of pike removed
Aug	Sept	20	120	400

Summary

The gill netting and electrofishing programmes for 2019 on Lough Sheelin is projected to remove 1400 pike.