

Inland Fisheries Ireland Summary Fish Counter Report

2018

IFI/2019/1-4462



Iascach Intíre Éireann
Inland Fisheries Ireland



Contents

Introduction.....	2
1 River Fane	4
2 River Dee	6
3 Boyne Counter	9
4 Slaney Counter.....	111
5 Kerry Blackwater	133
6 Waterville	155
7 River Maine.....	177
8 Feale River.....	1919
9 Mague River	211
10 Mulkear	233
11 Fergus River.....	255
12 Inagh River (Ennistymon)	27
13 Dunkellin River	29
14 Corrib Counter.....	301
15 Owenboliska River.....	333
16 Casla River.....	355
17 Invermore River	37
18 Owengowla River	389
19 Inagh Counter	4141
20 Owenglin (Clifden River) Counter	433
21 Dawros (Kylemore) River Counter	455
22 Culfin Counter	47
23 Erriff River	49
24 Bunowen River	511
25 River Moy Counters	533
26 Eske River.....	555
27 Eany River	57
28 Lackagh River.....	59
Conclusion	611
Acknowledgements	611



Introduction

Since Inland Fisheries Ireland (IFI) came into existence IFI has set about the task of consolidating all counters and counter data under the one branch of the organisation. In addition a substantial effort has been made to continually upgrade the counter network and up skill the operators to ensure IFI operates the best data collection and management service available.

IFI allocates time each year to plan and look for current trends and future developments which could be incorporated into the fish counter programme. The future development of the counter network is evolving with issues of compatibility, software and availability of hardware all requiring management as the programme looks to secure its long term future. These issues have been incorporated into a risk based assessment plan for the future management of the programme.

Investment in new CPU's has commenced with the development of a computer which is suitable for the counter programme and relevant software. Research into camera technologies is ongoing in an effort to replace the current DVR boards which are no longer easily obtained.

IFI have developed a policy, governing data collected by its network of counters. The policy sets out the rules regarding the storage, management and sharing of fish counter data. A number of significant challenges lay ahead for the current fish counter programme.

The following report is a brief look at each of the IFI counters. Information for the report has been gathered over the year by staff operating; maintaining and cleaning counters to ensure accurate counts are available. The data presented is the summary of counts for the year.

During 2018 the number of counters which did not provide continuous counts was insignificant as temporary counters were dispatched to cover the sites during repairs. The down time on all counter sites has decreased as new solutions are found and spares have been purchased and dispatched accordingly.

The inclusion of a reporting and maintenance record section on the new internal IFI web site which automatically contacts those responsible for repairs ensures a quick response time this has enabled IFI to achieve consistence practice on all sites by numerous staff uploading the data.

Gregory Forde

Head of Operations

1 River Fane



Type : Logie

Operating: Jan – Dec 2018

Performance: Good

Verified: Yes

1.1 River site and description

The fish counter is sited at Stephenstown, on the Dundalk to Ardee road. It is a Logie, resistivity, counter with two channels covering the width of the River Fane. The counter is managed by IFI staff from the Dundalk District. The data is downloaded and verified on the computer system which is housed in the Dundalk Salmon Anglers hatchery facility near the weir.

1.2 Operation

The counter worked well during the year with maintenance being carried out regularly and the connections on the weir were upgraded and sealed. A new camera cable was laid to replace the old cable. The new cable will allow staff operating the site to change cameras on the weir if necessary. The counter provided good data for 2018. Additional works to upgrade the facility from a health and safety point of view have also taken place. Low water levels during the summer months left fish downstream of the counter most of the year.



Table 01: Counter data for the R.Fane

Fish Species	Number
Spring salmon	36
Grilse	0
Late Summer Salmon	49
Sea Trout	157

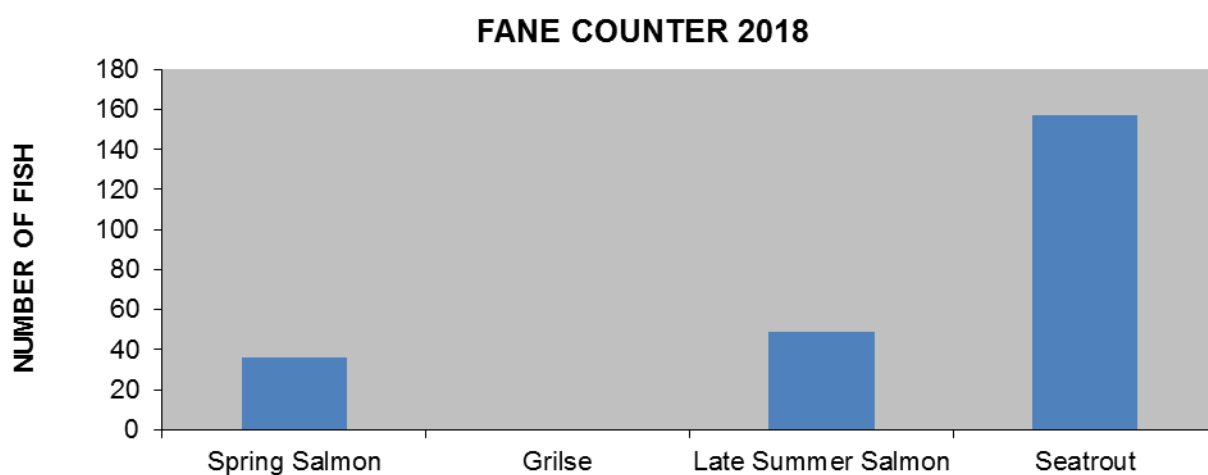
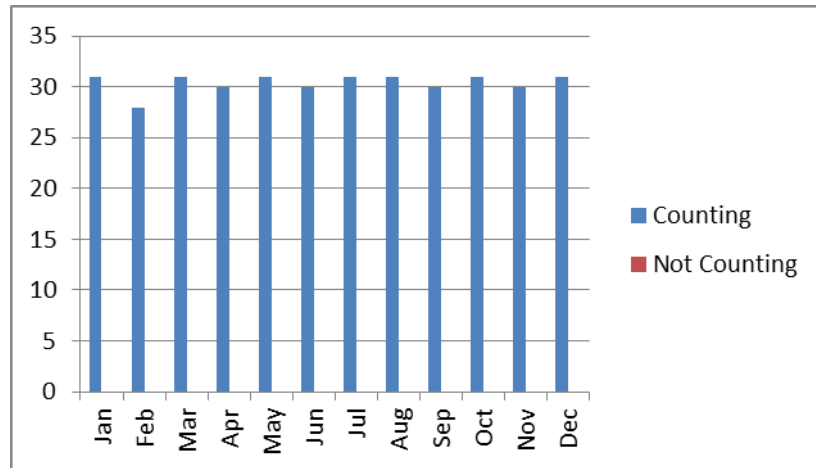


Table 02: Counter Operations

Counter Operational (Days)	Counter not operational (Days)
365	0



2 River Dee



Type : Vaki

Operating: Not Operating

Performance: intermittent

Verified: Yes



2.1 River site and

description

The fish counter is sited at Cappogue, on Drumcar Weir, on the Drumcar to Dunleer road, County Louth. It is a Vaki counter and records the fish as they move up and down through the fish pass on the side of the weir. This counter is a partial counter and the percentage of the fish counted depends on weather and water level. This data is uploaded by IFI staff from the Dundalk District. The data is verified on site using the Winari software.

2.2 Operation

The Vaki is an older model and parts are difficult to source, the counter operated from time to time but the data was too inconsistent to be included in this report. An application for new equipment to the NSAD fund was successful and the equipment has been purchased and delivered to IFI. The installation of the equipment will take place early in 2019.

Table 03: Counter data for the R. Dee

Fish Species	Number
Spring salmon	0
Grilse	0
Late Summer Salmon	0
Sea Trout	0

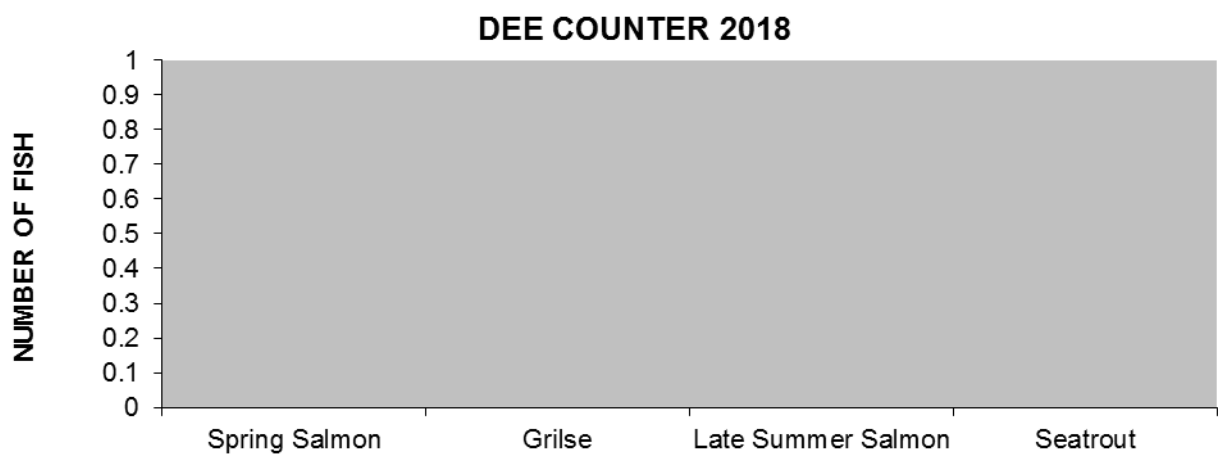
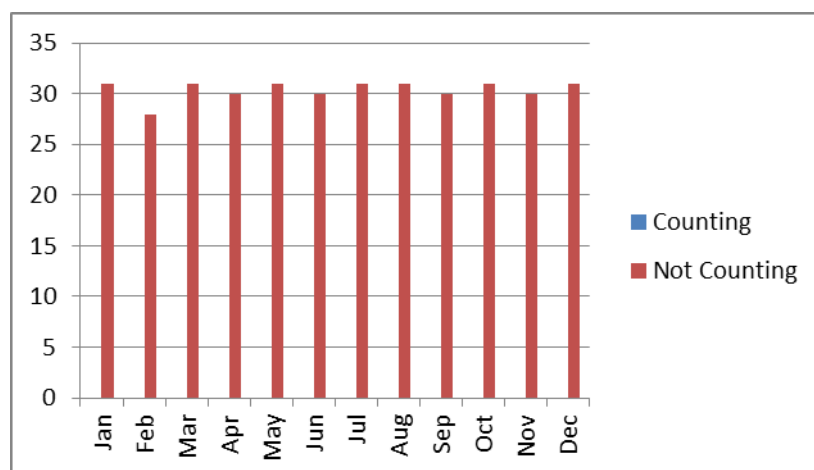


Table 04: Counter Operations

Counter Operational (Days)	Counter not operational (Days)
0	365



3 Boyne Counter



Counter type: Logie and Vaki

Operating: Jan – Dec 2018

Performance: Good

Verified: Yes

3.1 River site and description

The Fish counters at Blackcastle in Navan, Co. Meath consist of 6 different channels which count fish travelling up and down the River Boyne system. These are made up of 4 crumps (for Logie counters) which record fish as they pass over the weir and two Vaki counters that count fish as they pass through two tunnels on either side of the crump weirs. The counters account for approximately 20% of the total width of the channel at Blackcastle. The weir at Blackcastle makes up the remaining 80%.

3.2 Operation

The counters give an accurate total of the fish that travel through them; the number of fish that travel up and down across Blackcastle Weir is unknown. This counter provides a partial count but counts a high percentage of the run of fish. The connections to the electrodes from the counter have been upgraded using a resin filled waterproof box, this will eliminate any events being caused by damp connections. All the counters on this site worked well for the period and provided accurate data. The long summer drought which extended into late October on the Boyne accounted for the major run of fish in November.



Table 05: Counter data for the R. Boyne

Fish Species	Number
Spring salmon	190
Grilse	45
Late Summer Salmon	1839
Sea Trout	0

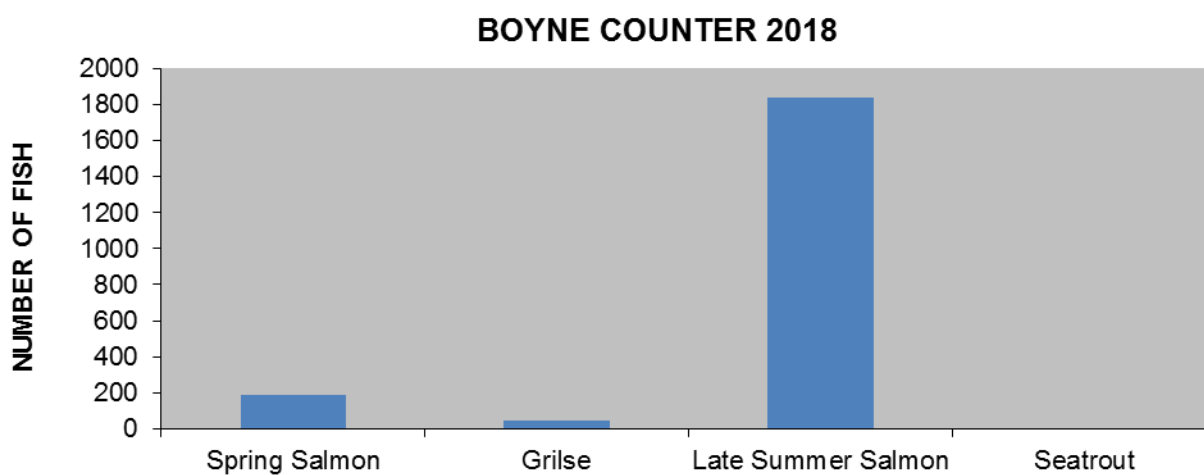
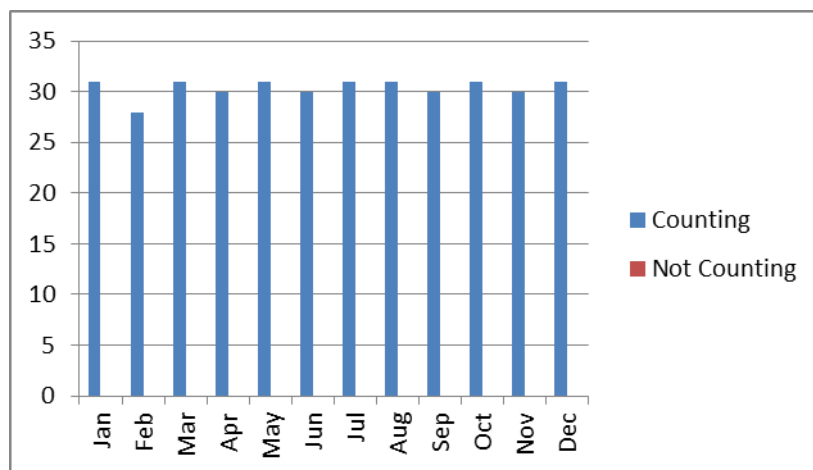


Table 06: Counter Operations

Counter Operational (Days)	Counter not operational (Days)
365	0



4 Slaney Counter



Counter Type: Logie

Operating: Jan – Dec 2018

Performance: Good

Verified: Yes

4.0 River site and description

The system used on the Slaney is a Logie fish counter in conjunction with a tube fish pass that counts salmon and sea trout which enter the tube on their return to the river from the sea. An underwater surveillance camera is used to verify the fish count recorded on the counter. The site of the counter at Clohamon weir is not ideal as it is approximately 30 miles from where the Slaney enters the sea through Wexford Harbour. The counter is a partial counter as fish can traverse the weir in flood conditions.

4.1 Operation

The counter is both efficient and accurate in terms of the fish that actually move upstream or downstream through the tube, but an unknown proportion of the run by-passes the counter at other points on the weir. The in-stream structure housing the counter was severely damaged in flooding in January 2016. The counter was recommissioned in December 2016 and significant works were carried out to make this a more efficient counter. This site has operated well in 2018.



Table 07: Counter data for the R. Slaney

Fish Species	Number
Spring salmon	85
Grilse	166
Late Summer Salmon	118
Sea Trout	1226

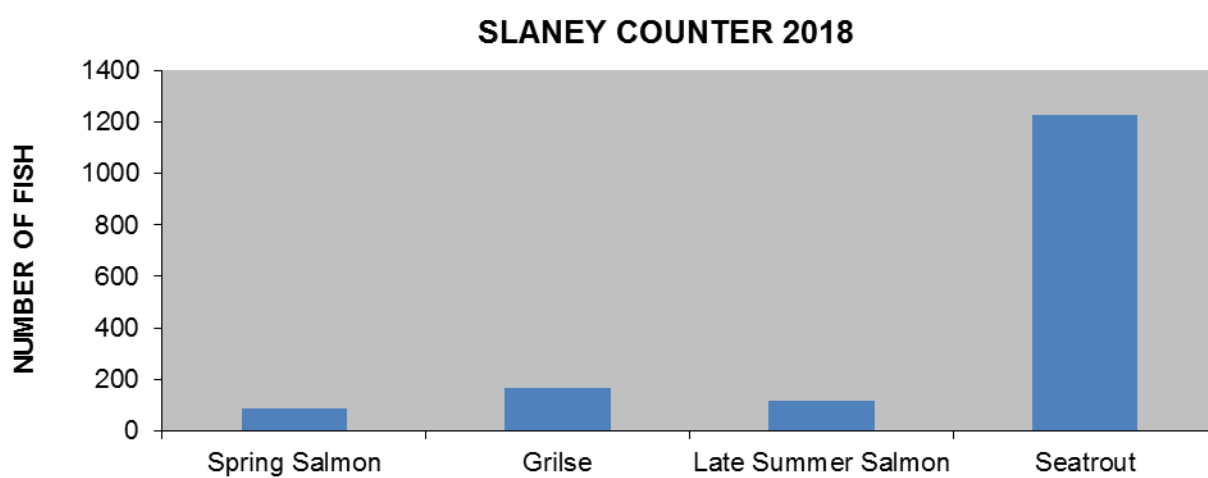
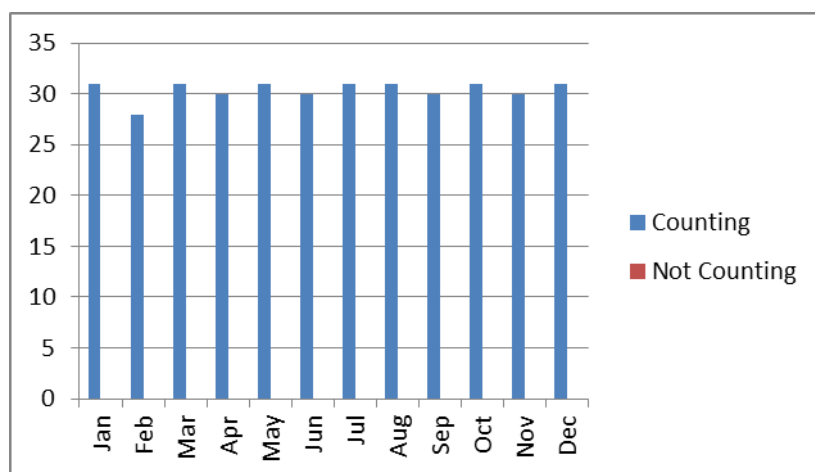


Table 08: Counter Operations

Counter Operational (Days)	Counter not operational (Days)
365	0



5 Kerry Blackwater



Type : Logie

Operating: Jan – Dec 2018

Performance: Good

Verified: Yes

5.1 River site and description

The Kerry blackwater counter is located one hundred meters upstream of the estuary. It is a Logie resistivity counter which operates over three channels and gives a total count for the river. The river is currently open for angling on a catch and release basis. The river is sixteen miles long with one small lake and is considered a spate river.

5.2 Operation

The counter operated well during the year. The site has been checked regularly and the system assessed due to the low numbers of fish being recorded crossing the weir. The existing camera was remounted out of the river to ensure it operated throughout the season without damage from flooding. The counter is providing accurate results for the river system. The wiring to the counter has been re-covered following flooding. Additional work on one electrode has been completed.



Table 09: Counter data for the Kerry Blackwater River

Fish Species	Number
Spring salmon	76
Grilse	285
Late Summer Salmon	39
Sea Trout	71

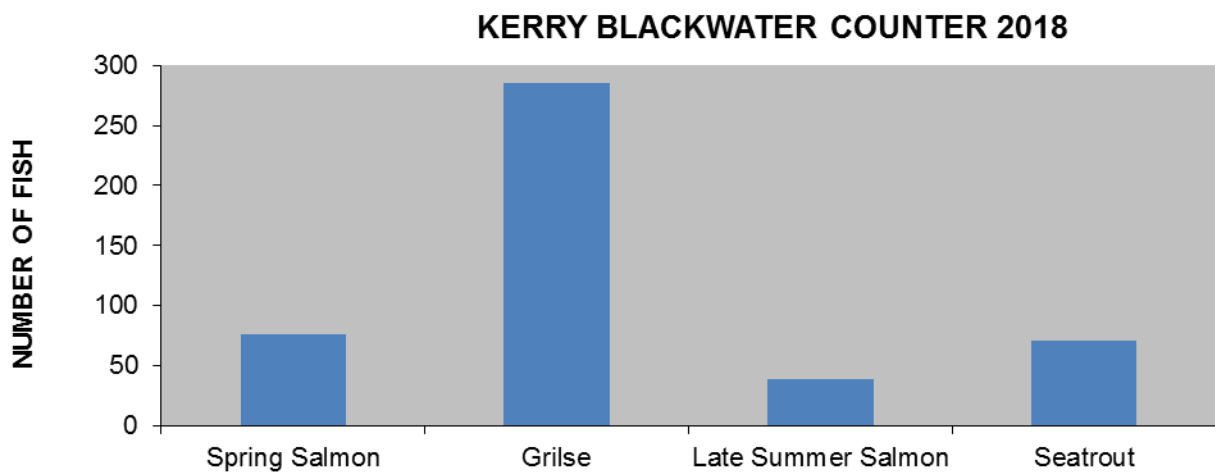
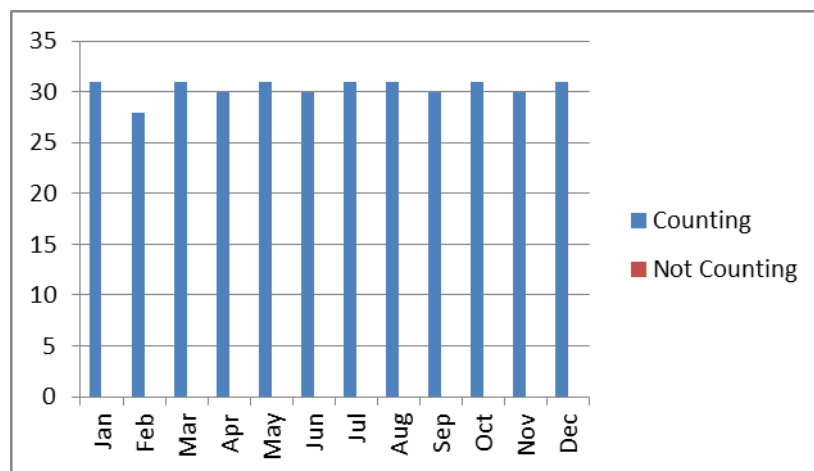


Table 10: Counter Operations

Counter Operational (Days)	Counter not operational (Days)
365	0



6 Waterville



Type : Logie

Operating: Jan –Dec 2018

Performance: Good

Verified: Yes

6.1 River site and description

The Waterville counter is located upstream of the estuary in the estate grounds of Waterville house. The counter is a logie resistivity counter which operates four counting crumps giving a total count for the river system. The electrodes are spaced primarily for counting sea trout. The data to date has been verified by CCTV camera.

6.2 Operation

The counter has operated well over the course of the year. An additional pool camera has been installed by IFI to facilitate Waterville House. The connections to the counter have been replaced to upgrade the quality of data being collected. The computer which operates the Geovision surveillance camera has also been replaced. The crumps on this site require extensive works in the long term and a replacement counter and counting structure has been proposed in the Counter Strategic and Maintenance Plan. The counter does not count very small sea trout.



Table 11: Counter data for Waterville

Fish Species	Number
Spring salmon	196
Grilse	431
Late Summer Salmon	42
Sea Trout	1216

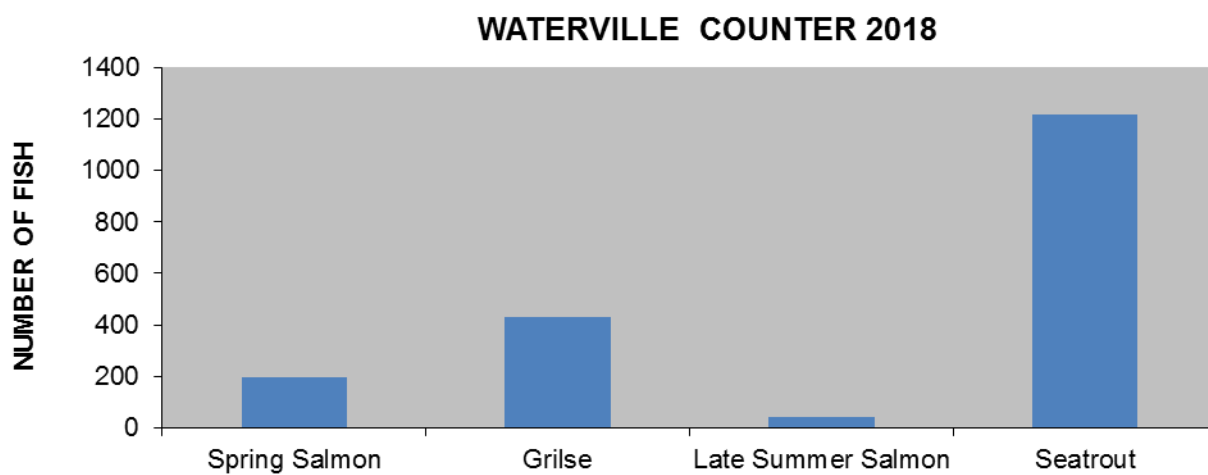
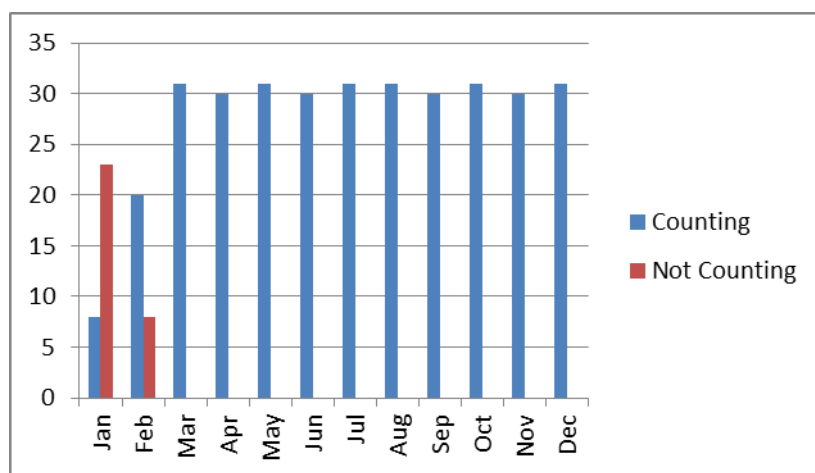


Table 12: Counter Operations

Counter Operational (Days)	Counter not operational (Days)
334	31



7 River Maine



Type : Logie

Operating: Jan–Dec 2018

Performance: Good

Verified: No

7.1 River site and description

The fish counter on the Maine is a logie resistivity counter operating four channels which span the river giving a total count. The counter weir is located upstream of “Marshall’s bridge” and was commissioned in late 2009. The counter site is six miles from the sea but only half a mile upstream of the intertidal zone.

7.2 Operation

The counter has operated well for the 2018 season as a result of the completion of upgrades to the connections. The counter was checked and reconfigured a number of times during the year to ensure the best count possible was available. Significant debris crossing and getting lodged on the weir has caused an increase in the number of events being recorded. The construction of the weir, which has precast crumps, has significant background noise which affects the accuracy of the counter. The data from this weir has been downgraded to unverified due to the level of background noise on the weir.



Table 13: Counter data for the Maine River

Fish Species	Number
Spring salmon	1458
Grilse	23
Late Summer Salmon	63
Sea Trout	309

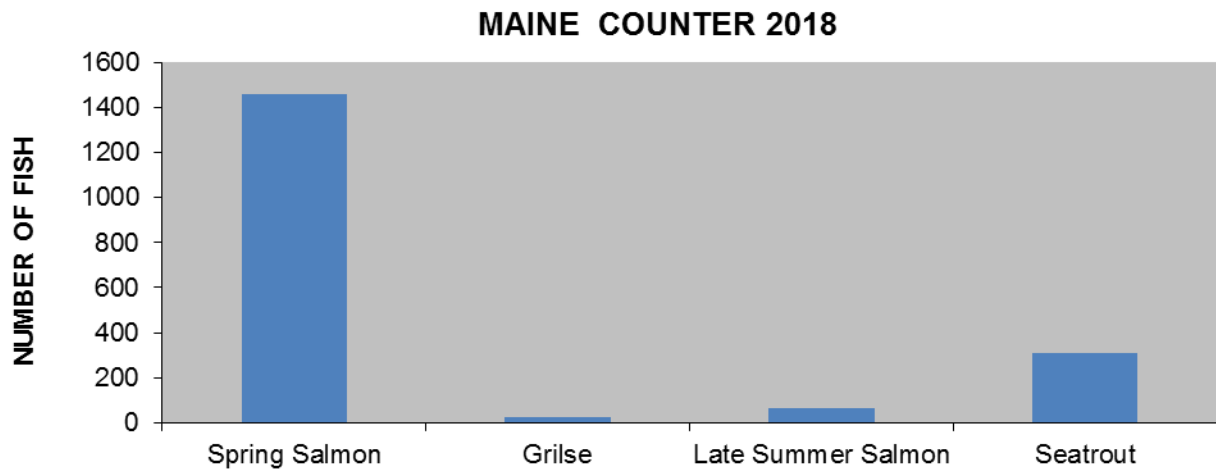
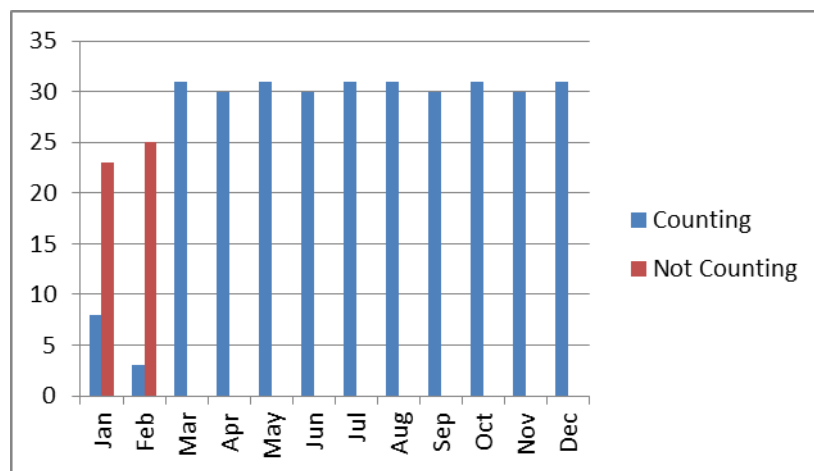


Table 14: Counter Operations

Counter Operational (Days)	Counter not operational (Days)
317	48



8 Feale River



Counter type: Logie

Operating: Jan-Dec 2018

Performance: V. Good

Verified: Yes

8.1 River site and description

The River Feale rises in the Mullaghareirk Mountains in County Cork and meanders approximately 74 kilometres before joining with the Galey and Bricks Rivers becoming the Cashen River. The River Feale counter is located approximately 5 kilometres downstream of Listowel Town in the townland of Scartleigh at the Kerry County Council water abstraction plant. The River Feale is above its conservation limit and is therefore open for angling.

8.2 Operation

The counter is a one channel counter operated on a crump which was installed to assist fish over the large weir. The counter operated well over the course of the summer and provides consistently accurate data. A new camera was installed early in the summer. A small number of fish have been seen by-passing the counter by going over the weir in high water conditions. The counter needs attention in the coming years to ensure it continues to provide accurate information, it is set up to count salmon.



Table 15: Counter data for the Feale River

Fish Species	Number
Spring salmon	1484
Grilse	1522
Late Summer Salmon	438
Sea Trout	84

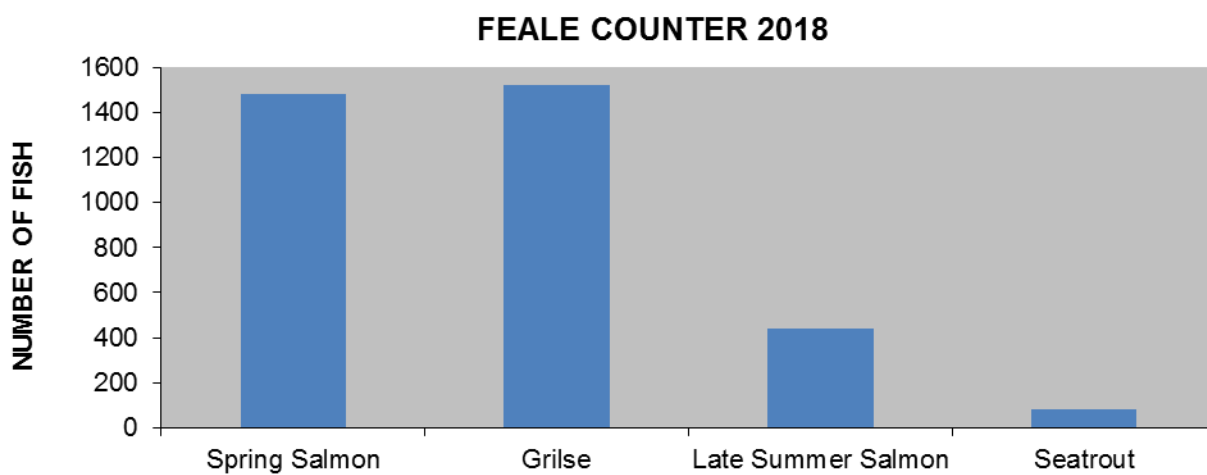
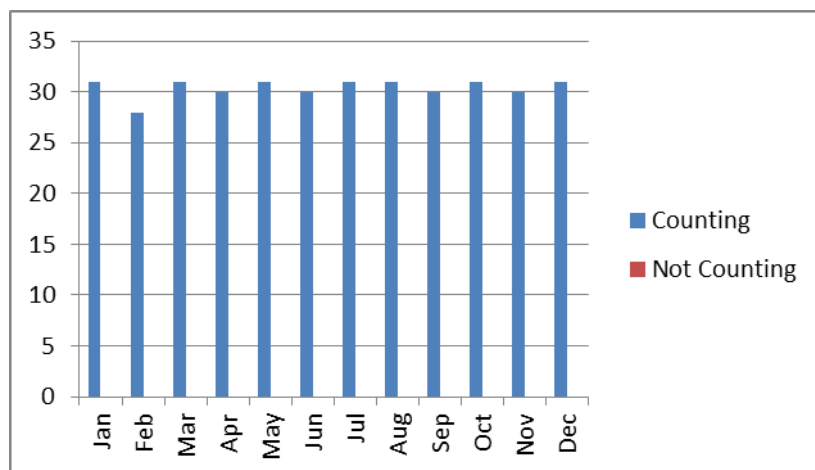


Table 16: Counter Operations

Counter Operational (Days)	Counter not operational (Days)
365	0



9 Maigue River



Counter type: Logie

Operation Period: Jan – Dec 2018

Performance: Good

Verified: No

9.1 River site and description

The River Maigue rises at the base of the Ballyhoura and Slievenamuck Mountains in the Galtee Mountain range in south County Limerick. It drains a large catchment area of 1,009km² extending from Ballylanders and Kilfinnane in the Southeast, flowing Northwest through the villages of Croom and Adare then turning north into the Shannon estuary at the Ferry Bridge, not far from Kildimo village. The River Maigue catchment area is characterised predominantly by rich pasture land and forms part of the renowned 'Golden Vale' agricultural area.

9.2 Operation

The Maigue counter is a ten channel counter and was completed on March 2013 when it was re-engineered into a crescent shaped weir. The site uses three counters to count all ten channels and therefore requires a greater amount of time to maintain and verify. In 2018 the counter was operational and worked well. The counting weir requires work after each winter to connections and electrodes due to significant debris and velocity of water during winter flood events.



Table 17: Counter data for the Maigue River

Fish Species	Number
Spring salmon	1332
Grilse	99
Late Summer Salmon	161
Sea Trout	0

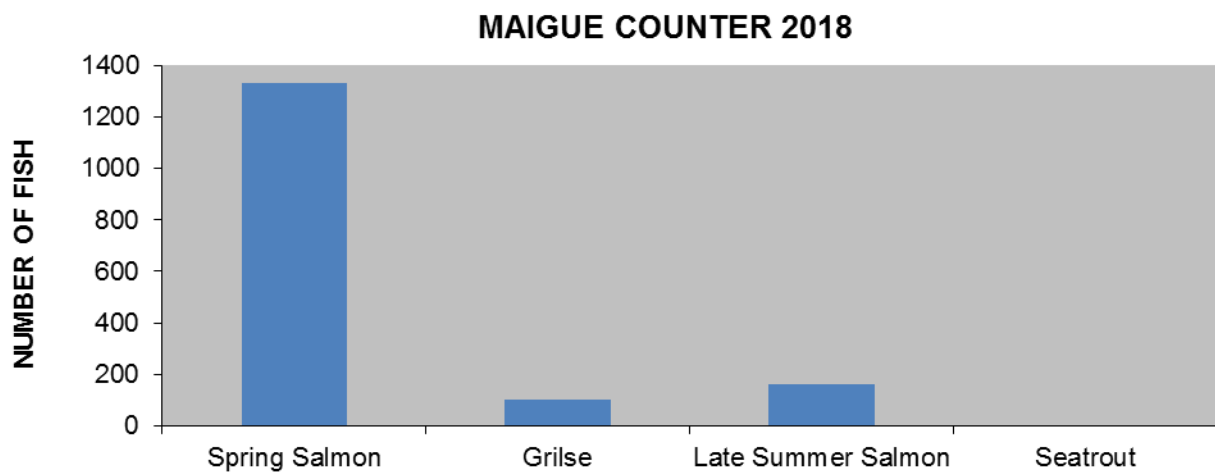
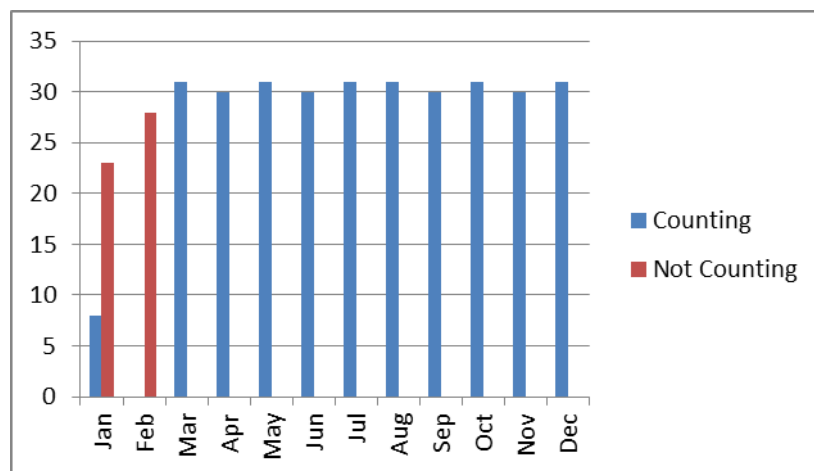


Table 18: Counter Operations

Counter Operational (Days)	Counter not operational (Days)
314	51



10 Mulkear



Counter type: Logie

Operating: Jan-Dec 2018

Performance: Good

Verified: Yes

10.1 River site and description

The Mulkear counter is located at Ballyclough on a purpose built crump weir approximately 3 kilometres upstream from where the mouth of the Mulkear River enters the River Shannon. Due to a large road scheme crossing the Mulkear River in 2004 an agreement was reached with the contractors to install a three channel crump weir and counter underneath the main bypass bridge located upstream of Annacotty village also included in the plans was a side channel to accommodate eel passage.

10.2 Operation

The counter worked well and provided accurate counts for the river. All three crumps were operational and only minimal maintenance was required to keep this counter working. A significant number of Lamprey were observed on camera crossing the weir. The site will require two new cameras to replace the existing cameras mounted high under the motorway bridge.



Table 19: Counter data for the Mulkear River

Fish Species	Number
Spring salmon	428
Grilse	801
Late Summer Salmon	3149
Sea Trout	0

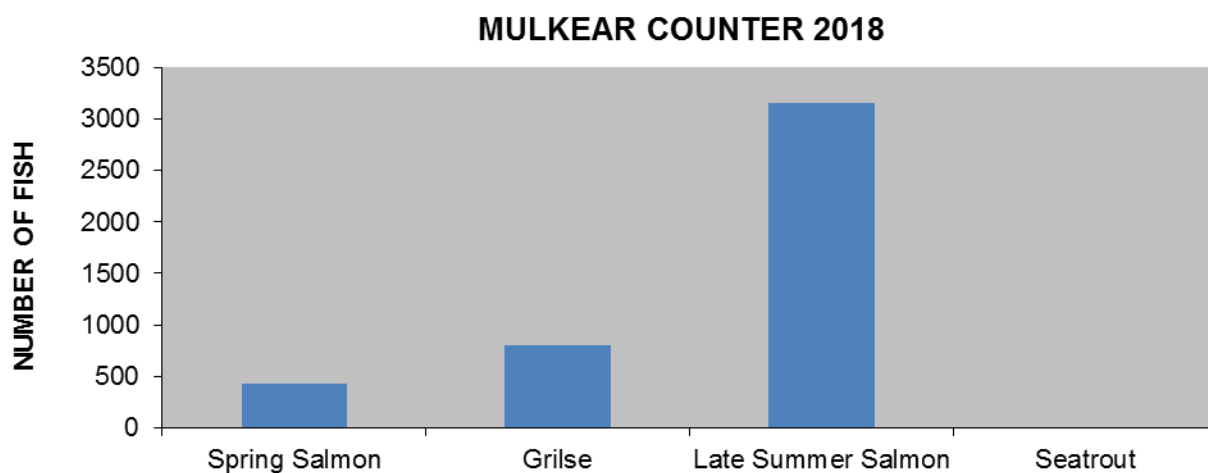
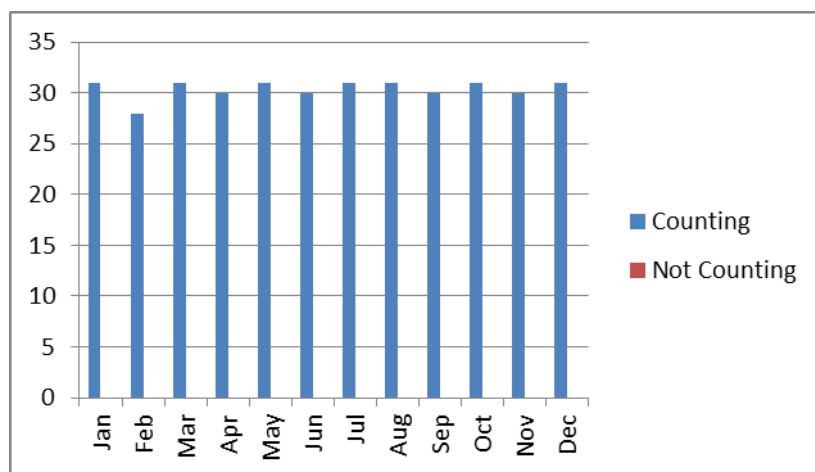


Table 20: Counter Operations

Counter Operational (Days)	Counter not operational (Days)
365	0



11 Fergus River



Counter type: Logie

Operating: Jan – Dec 2018

Performance: Good

Verified: Yes

11.1 River site and description

The Fergus fish counter is a recent addition to the IFI fish counter programme. The counter was installed as part of the flood relief works in Ennis. It consists of one channel located at the top of the new fish pass. The design of the fish pass is unique to allow lamprey, elvers and salmonids to migrate upstream past the old structure which is protected.

11.2 Operation

The counter is housed in the Civic building adjacent to the river. This facilitated an upgrade to the site which includes cameras, computer and verification software which has greatly increased the capabilities of the facility. An additional underwater camera has been installed at the site to assist with verification. Lamprey have not been detected by camera using the new fish pass to date.



Table 21: Counter data for the Fergus River

Fish Species	Number
Spring salmon	04
Grilse	39
Late Summer Salmon	214
Sea Trout	0

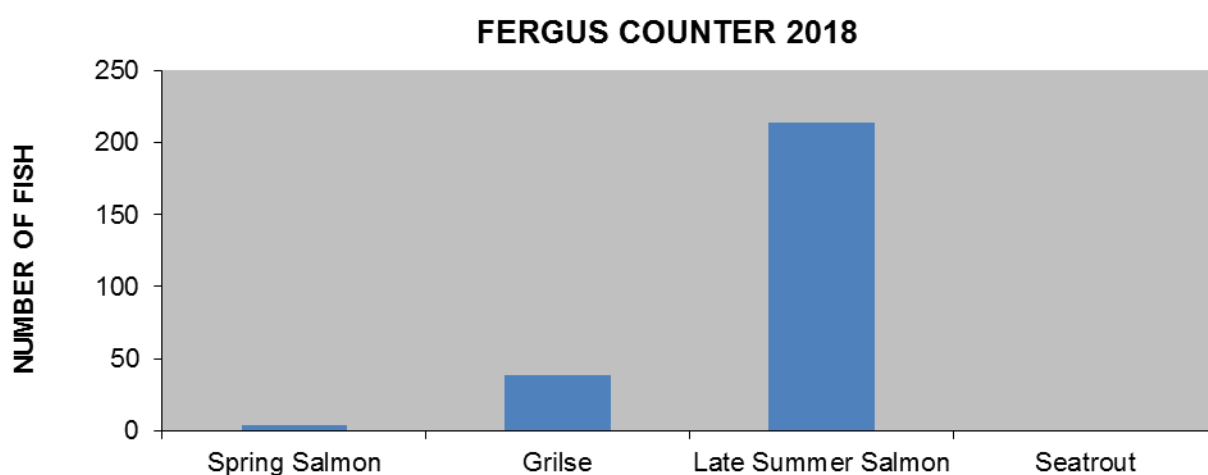
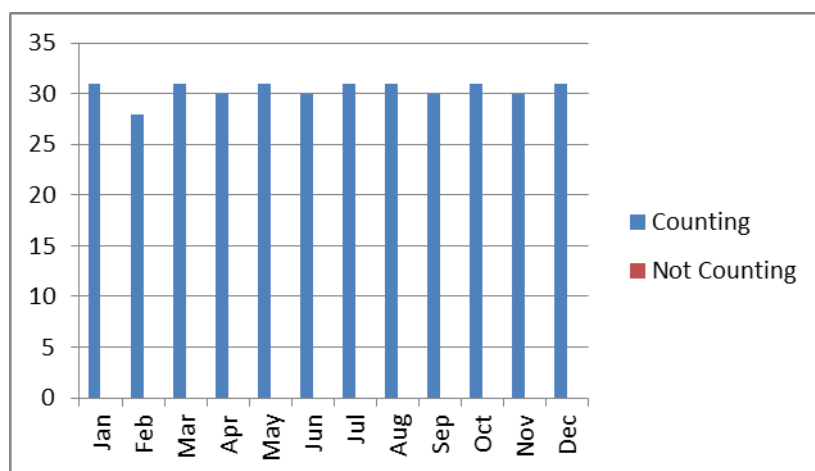


Table 22: Counter Operations

Counter Operational (Days)	Counter not operational (Days)
365	0



12 Inagh River (Ennistymon)



Counter type: Logie tube

Operating: Jan – Dec 2018

Performance: Good

Verified: Yes

12.1 River site and description

The tube counter in Ennistymon on the Inagh River has been reinstalled after nearly fifty years. This site at the top of the fish pass was the original site of the fish counter which was a tube counter. The current installation has CCTV verification since early January. The counter hut is in a new location and is only accessible to IFI staff.

12.2 Operation

The counter was connected in late December 2014. The counter has performed well during the year. The site has had some interruptions this year due to extensive construction works downstream of the counter which has now been completed. The run of fish into the system was very low but fish observed by staff were picked up by the counter.



Table 23: Counter data for the Inagh (Ennistymon) River

Fish Species	Number
Spring salmon	02
Grilse	13
Late Summer Salmon	04
Sea Trout	0

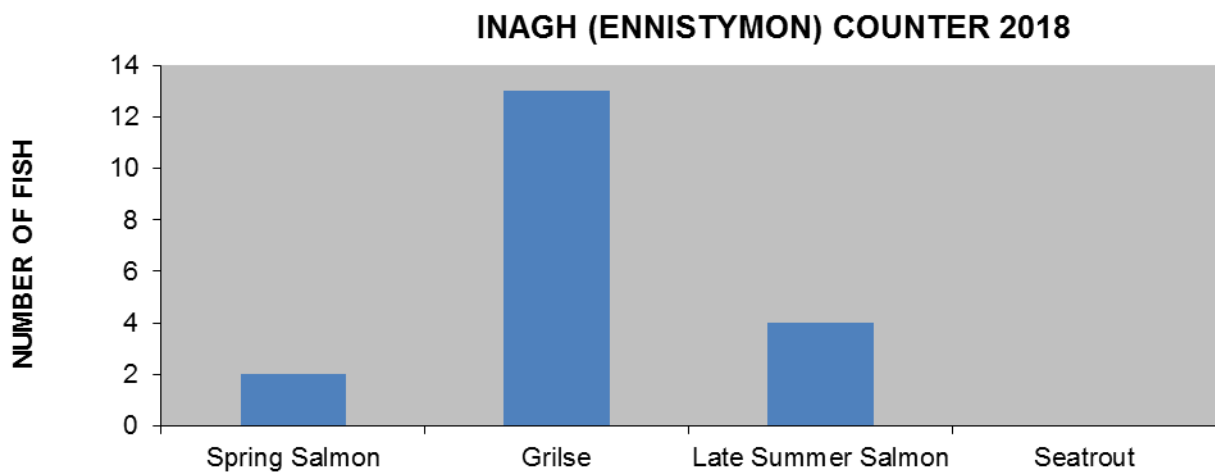
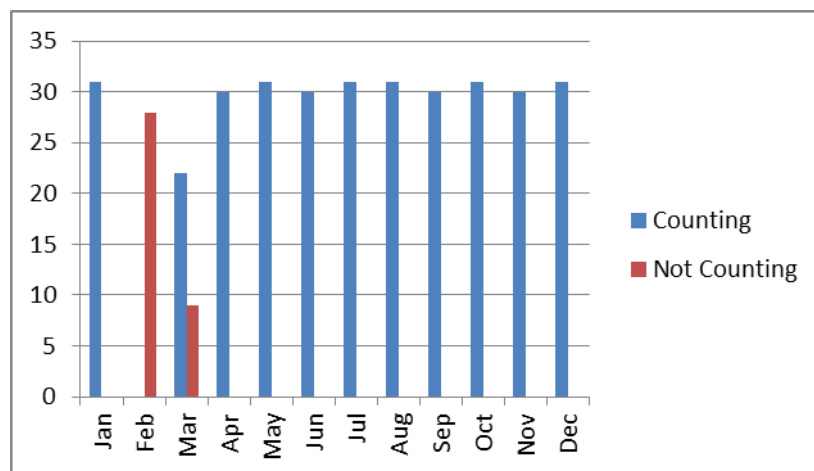


Table 24: Counter Operations

Counter Operational (Days)	Counter not operational (Days)
328	37



13 Dunkellin River



Counter type: Logie

Operating: Jan – June 2018

Performance: Good

Verified: Yes

13.1 River site and description

The Dunkellin counter was installed early in 2010 and operational from June of that year. The counter is located upstream of the village of Kilcolgan. The counter is a three channel counter which operates well in medium and low water. This entire area is subject to extensive flooding this can lead to the weir being inundated for significant periods.

13.2 Operation

The counter and Geovision systems worked well until they were removed. The counter is located in an area where a significant flood relief scheme is being undertaken. This involves overflow channels above and below the counter in 2017. The counter is now to be relocated upstream to facilitate the flood relief works and this is planned for 2019. The data collected is for the period prior to the facility being removed.



Table 25: Counter data for the Dunkellin River

Fish Species	Number
Spring salmon	22
Grilse	0
Late Summer Salmon	0
Sea Trout	0

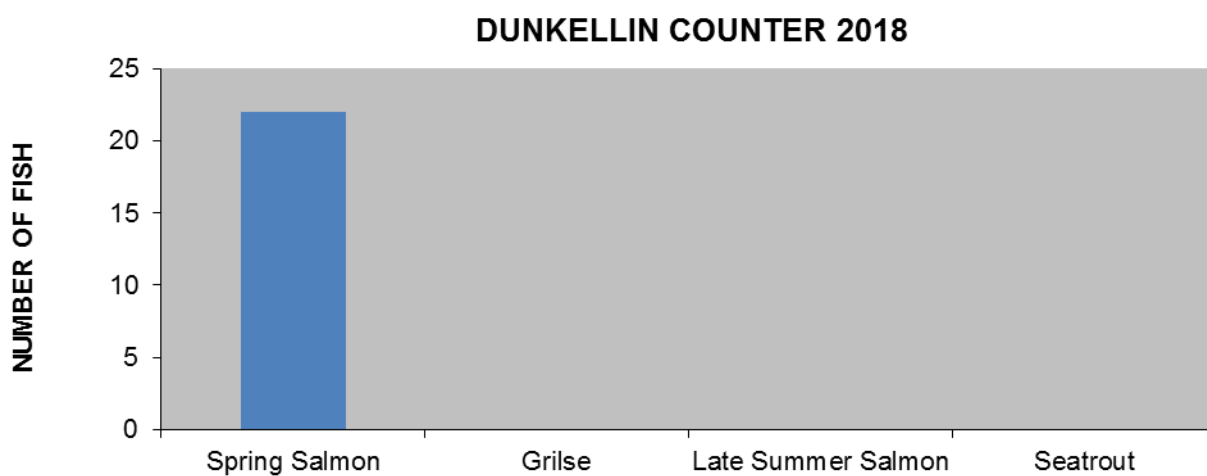
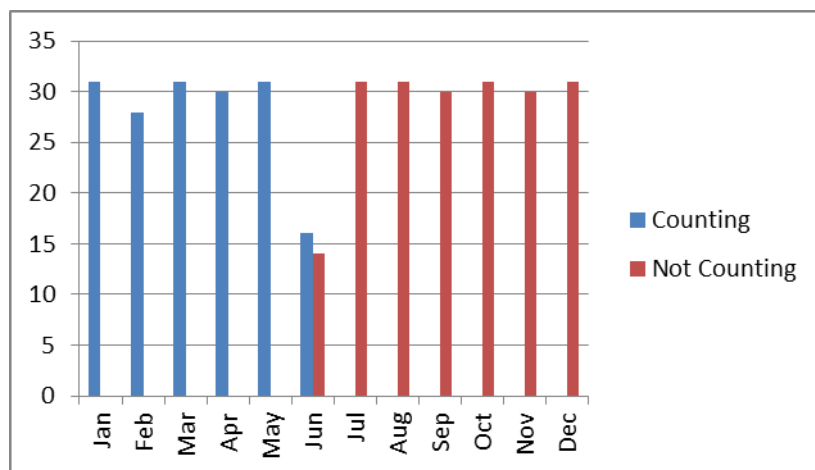


Table 26: Counter Operations

Counter Operational (Days)	Counter not operational (Days)
167	198



14 Corrib Counter



Type : Logie

Operating: Jan – Dec 2018

Performance: V.Good

Verified: Yes

14.1 River site and description

The Corrib counter is situated in a fish pass at the Salmon Weir in Galway. The system it uses is a Logie fish counter in conjunction with a tube fish pass that counts salmon which enter the tube on their return to the river from the sea. An underwater surveillance camera is used to verify the fish count recorded on the counter. Water levels invariably have an impact on the number of fish using the pass as salmon may, in high water, run upstream through opened gates. This is a partial counter as it only counts fish ascending the river through the fish pass.

14.2 Counter operation

The counter operated well during the 2018 season. The counter data has been verified and is accurate. The counter worked without interruption and all the data has been verified and uploaded to the web site. This is a partial count for the river and the percentage of fish using the fish pass varies from year to year depending on the water level.



Table 27: Counter data for the Corrib River

Fish Species	Number
Spring salmon	615
Grilse	6061
Late Summer Salmon	442
Sea Trout	01

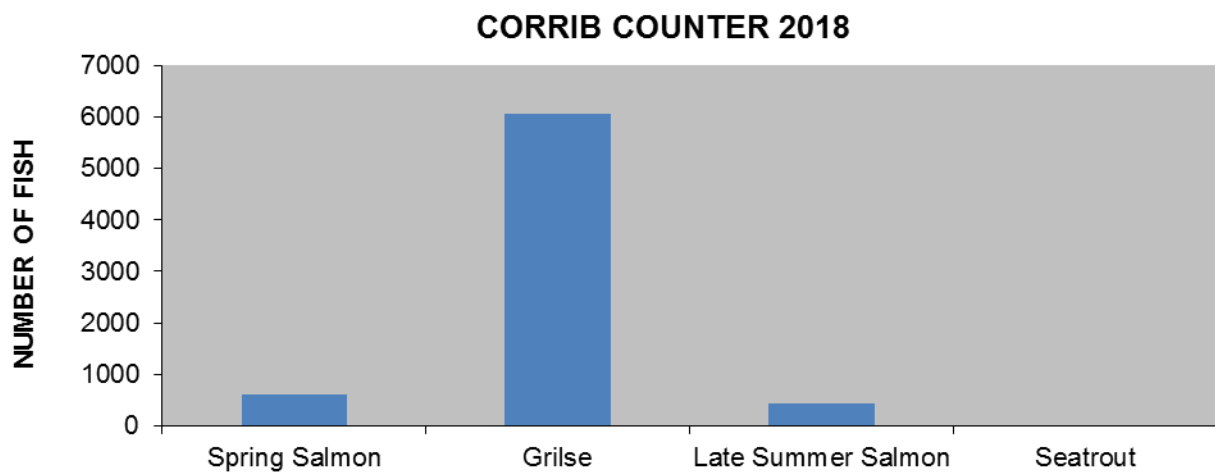
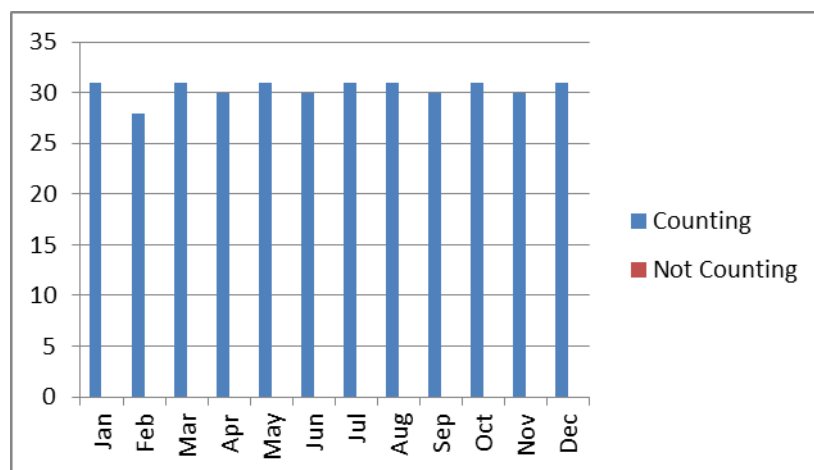


Table 28: Counter Operations

Counter Operational (Days)	Counter not operational (Days)
365	0



15 Owenboliska River



Type : Logie

Operating: Jan – Dec 2018

Performance: V.Good

Verified: Yes

15.1 River site and description

The counter is situated downstream of the village of Spiddal. The counter was constructed and commissioned by IFI in 2011 and was funded by the Salmon Conservation Fund. The counter operates on a purpose built weir with one counting channel. A verification camera system is also in operation.

15.2 Counter operation

The counter has been operational for the entire season with no problems recorded. The counter is affected by the occasional dumping of water from the impounding weir on the upstream lake. Sea trout can run the counter during these events and may not be detected by the counter. This sea trout counter data is more accurate in years where water levels are low and limited dumping of water from the impounding weir occurs.



Table 29: Counter data for the Owenboliska River

Fish Species	Number
Spring salmon	28
Grilse	32
Late Summer Salmon	40
Sea Trout	133

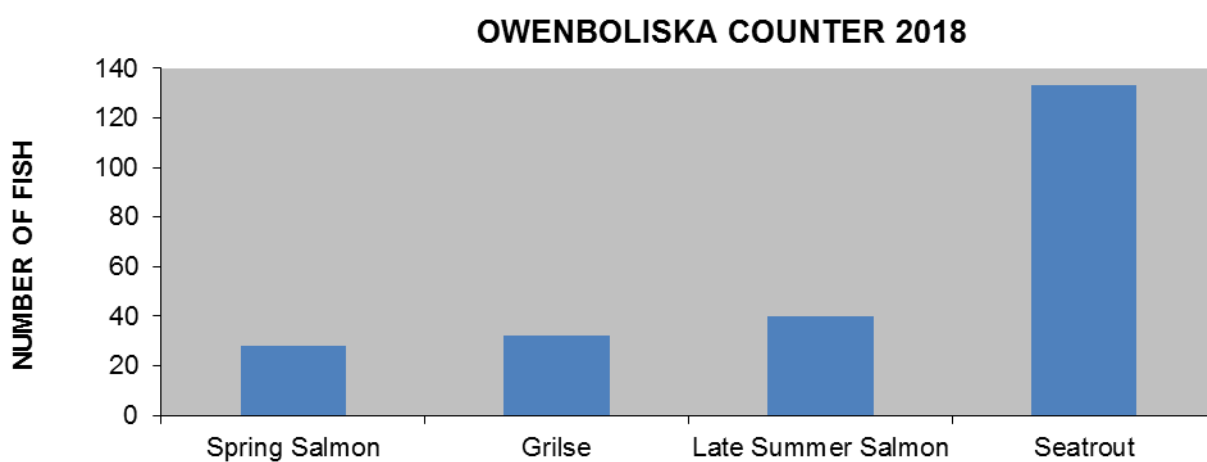
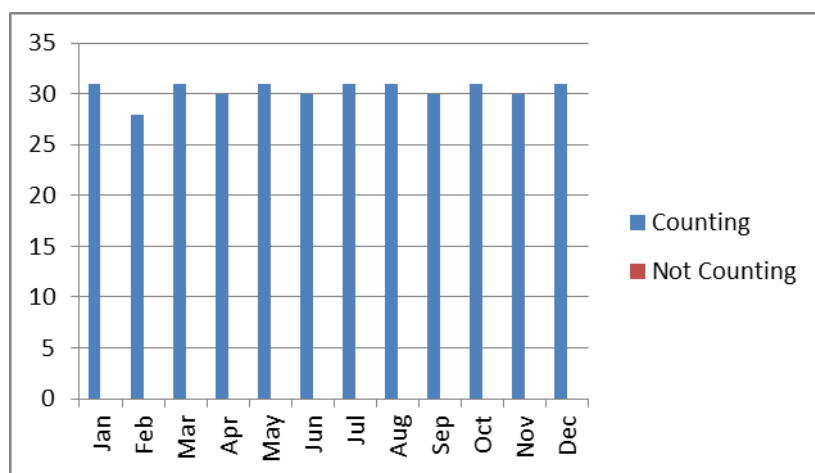


Table 30: Counter Operations

Counter Operational (Days)	Counter not operational (Days)
365	0



16 Casla River



Type : Logie

Operating: Jan – Dec 2018

Performance: V.Good

Verified: Yes

16.1 River site and description

The Casla River is privately owned and is the main river of the Costello and Fermoy Fishery. The river is six kilometres in length and drains an area of 83km² which includes 22 lakes – it is a typical sea trout system. The counter is located at a crump weir situated close to the limits of tidal influence. Under most flow conditions fish will run up over the weir.

16.2 Operation

The counter operated very well throughout 2018. The counter hut has been upgraded with the removal of the old pumping equipment and the installation of a new steel door. The computer was changed out prior to the upgrades to the hut. The counter has provided accurate counts with no loss of data for the year. Additional upgrades to the weir and hut are planned for 2019.



Table 31: Counter data for the Casla River

Fish Species	Number
Spring salmon	64
Grilse	709
Late Summer Salmon	67
Sea Trout	2586

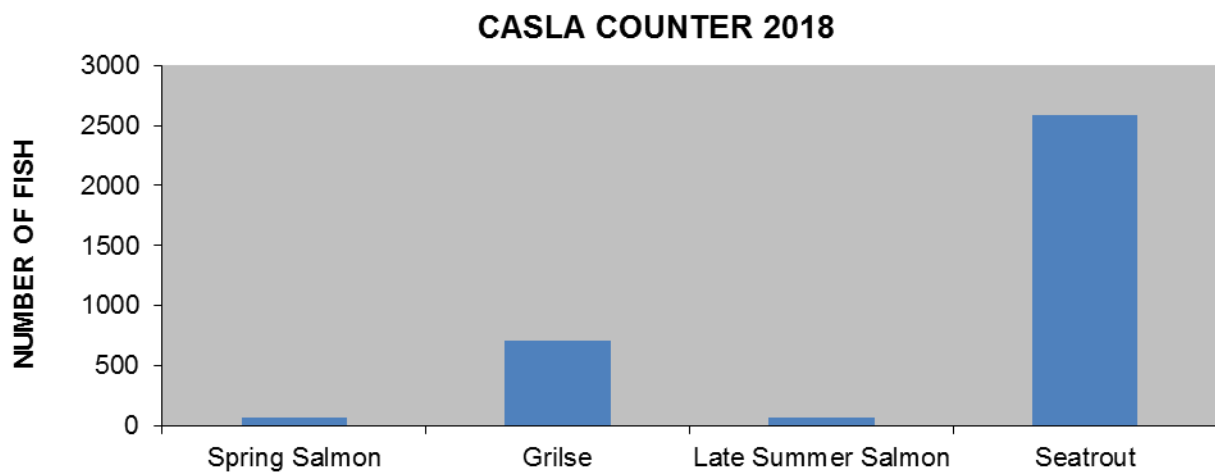
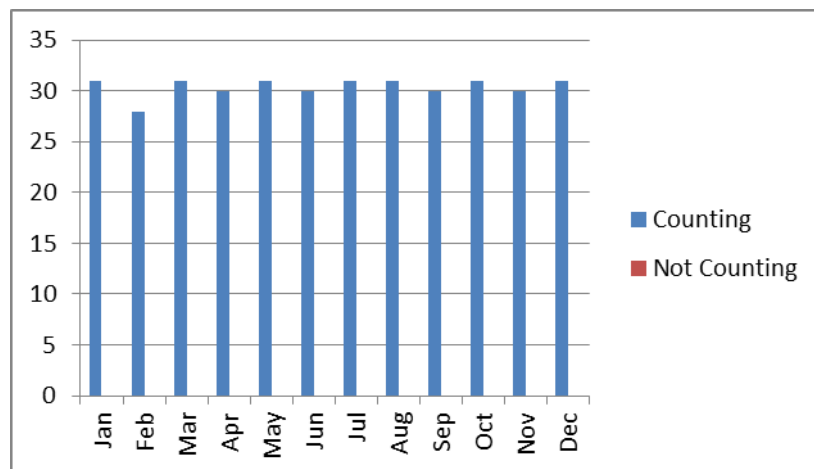


Table 32: Counter Operations

Counter Operational (Days)	Counter not operational (Days)
365	0



17 Invermore River



Type : Logie

Operating: Jan to Dec 2018

Performance: Good

Verified: Yes

17.1 River site and description

The Invermore counter is located upstream of the old trapping facility 100m above the intertidal zone. A new purpose built weir has been constructed to facilitate the counter. The electrode spacing has been set to count salmon and sea trout. The counts are verified using CCTV and uploaded to the web site.

17.2 Operation

This counter was installed to replace an old trapping system. The counter and cameras have performed well over the year. The counts for the river are accurate and it is hoped to eliminate all back ground noise on the weir to allow the collection of accurate data for the smaller sea trout entering the system over the coming seasons.



Table 33: Counter data for the Invermore River

Fish Species	Number
Spring salmon	03
Grilse	25
Late Summer Salmon	07
Sea Trout	67

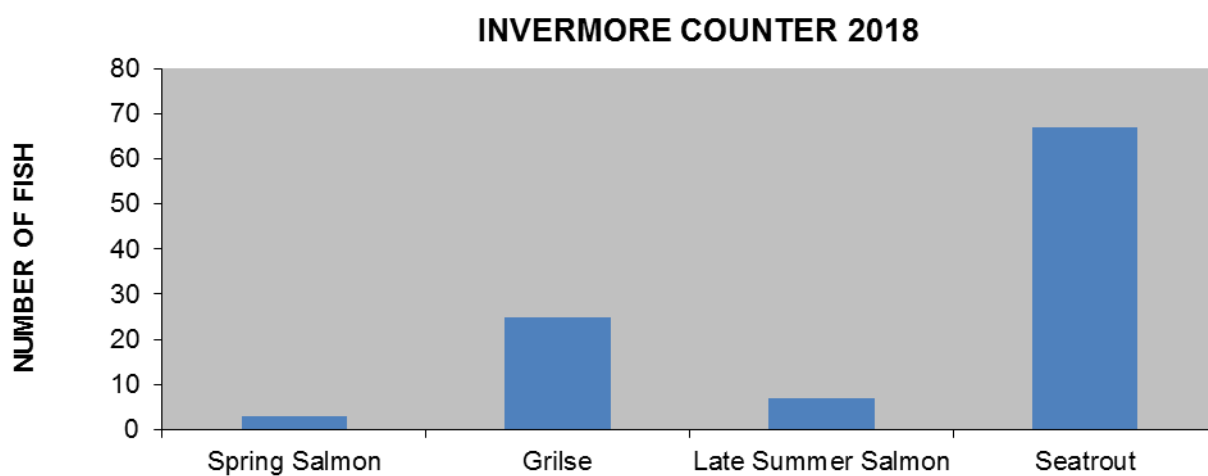
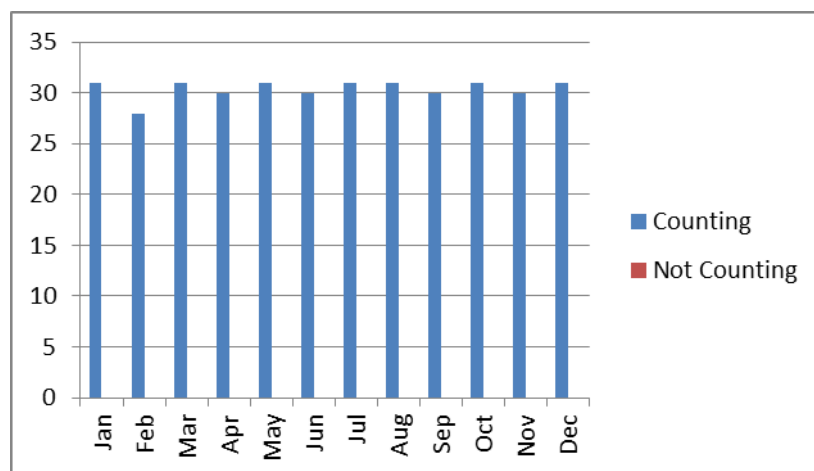


Table 34: Counter Operations

Counter Operational (Days)	Counter not operational (Days)
365	0



18 Owengowla River



Type : Vaki/ Logie

Operating: Jan - Dec 2018

Performance: Good

Verified: Yes

18.1 River site and description

The Gowla counter is located at the old trapping facility 100m above the intertidal zone. This counting facility completed in 2013. The site consists of a two channel weir which is set up to count sea trout. The counter was installed to replace a partial counter and trapping facility.

18.2 Operation

The more expensive Vaki counter on this site was removed to facilitate the installation of a crump weir and Logie counter. The site provides a total count for salmon and sea trout for the river. The site has provided accurate counts for 2018 with no breakdowns or loss of data. Camera data for the river suggest a small run of very large salmon enter this system every year. The run of sea trout recorded is lower than expected due to the dry summer.



Table 35: Counter data for the Owengowla River

Fish Species	Number
Spring salmon	0
Grilse	43
Late Summer Salmon	31
Sea Trout	79

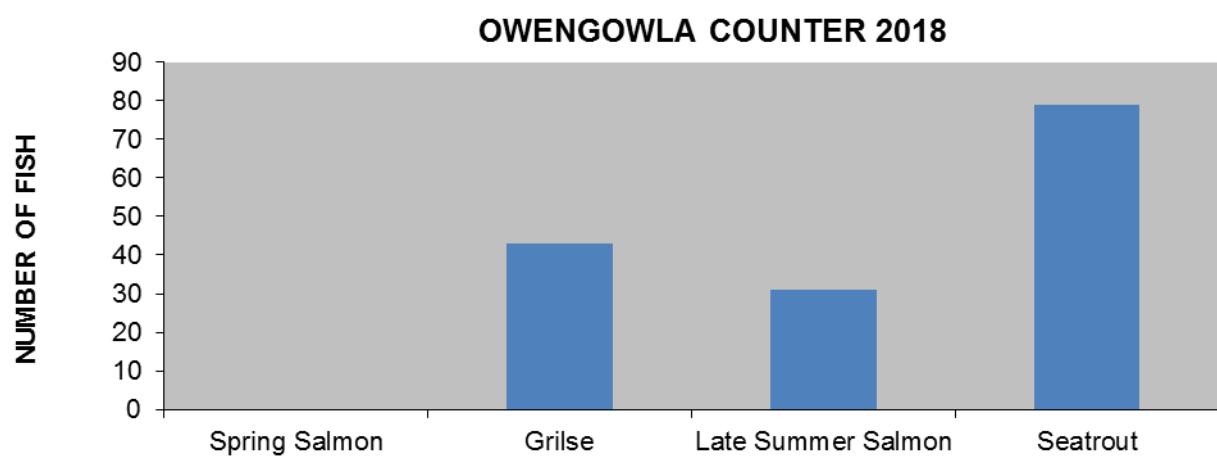
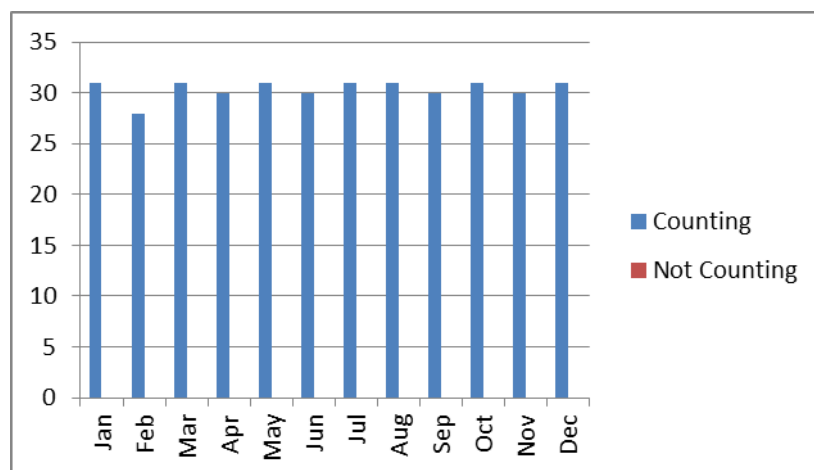


Table 36: Counter Operations

Counter Operational (Days)	Counter not operational (Days)
365	0



19 Inagh River



Type : Logie

Operating: Jan – Dec 2018

Performance: V.Good

Verified: Yes

19.1 River site and description

The Inagh counter is located on the Inagh River 40 m above Derryclare Lake. It is the location of the first Logie counter in the country which was installed in the late 1980's. The structure is a purpose built crump weir with one counting channel to facilitate a Logie counter. The counts are verified by CCTV. The fishing rights are privately owned by a syndicate and managed by Lough Inagh Lodge Hotel.

19.2 Operation

The counter worked well throughout 2018. The low water all summer allowed for accurate verification of the counts for salmon. The counters counts salmon accurately but sea trout can use an alternative channel which is not counted. The computer operating the counters was repaired and reconfigured on a number of occasions to ensure verification was possible on the full data set. All data has been verified.



Table 37: Counter data for the Inagh River

Fish Species	Number
Spring salmon	41
Grilse	45
Late Summer Salmon	26
Sea Trout	0

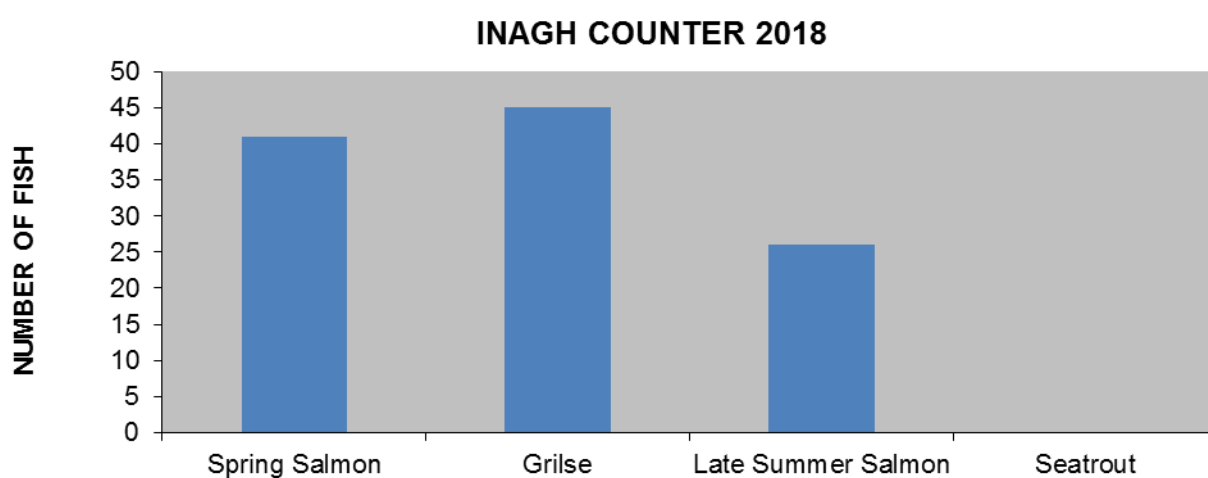
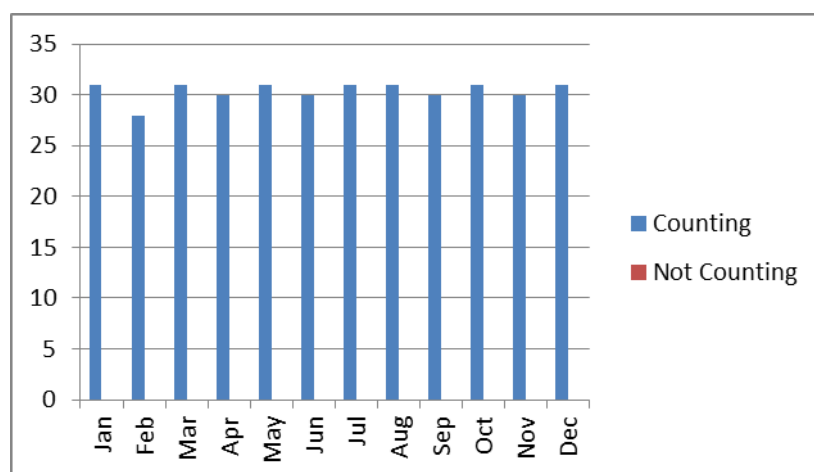


Table 38: Counter Operations

Counter Operational (Days)	Counter not operational (Days)
365	0



20 Owenglin (Clifden River) River



Counter type: Vaki

Operating: Jan – Dec 2018

Performance: V. Good

Verified: Yes

20.1 River site and description

The site of the counter in the Owenglin River is located in the existing fish pass just upstream of the estuary. The Vaki counter and camera are particularly suited to this type of site. The counter and camera are housed in a stainless steel purpose-built frame which allows the counter to activate the camera and provide video and infrared silhouette images of the fish. The fishing rights to the Owenglin River are privately owned by the Clifden Angling Club. The catchment includes numerous small lakes.

20.2 Operation

The counter has operated well over the course of the period when fish were running the system. This Vaki detection panels sustained damage and have since been repaired. An alternative set of panels were installed to cover the repair period. The original counter has been reinstalled and is working well. The count for the river is up on previous years and this reflects what anglers have experienced and what staff are reporting.



Table 39: Counter data for the Owenglin River

Fish Species	Number
Spring salmon	54
Grilse	483
Late Summer Salmon	85
Sea Trout	93

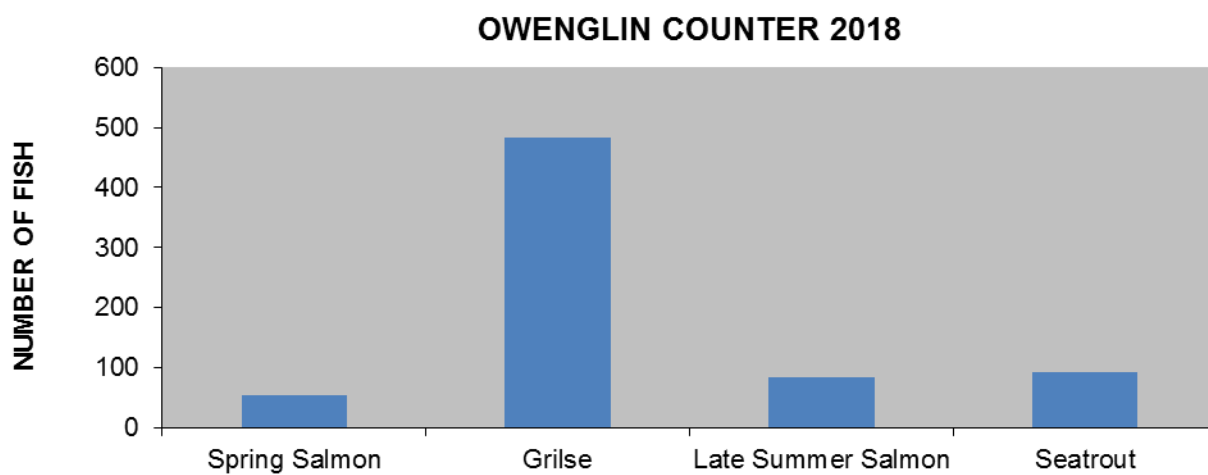
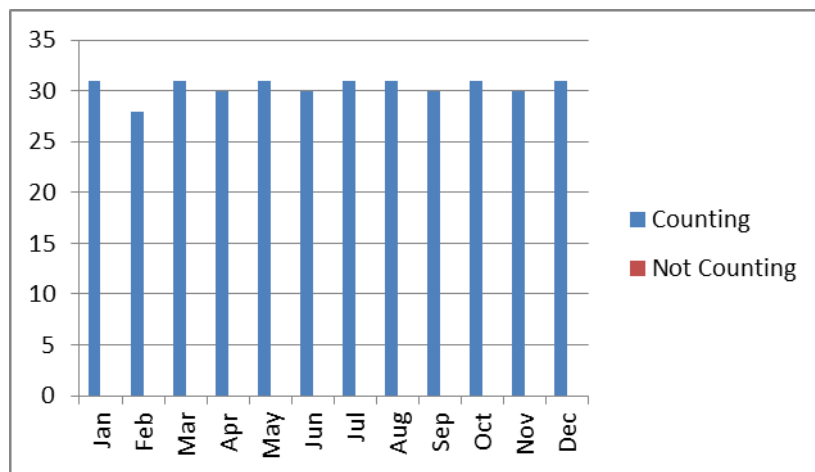


Table 40: Counter Operations

Counter Operational (Days)	Counter not operational (Days)
365	0



21 Dawros (Kylemore) River



Counter type: Logie

Operating: Jan – Dec 2018

Performance: V. Good

Verified: Yes

21.1 River site and description

The Dawros is a privately owned river with three groups owning the fishing rights. The river has traditionally enjoyed good salmon and sea trout runs. The system incorporates three lakes (Kylemore Lake, Pollagcapaill, and the Castle Lake) and the Dawros River which enters the sea in Ballinakill Bay.

21.2 Operation

The counter operated well during the course of the year. The numbers of fish recorded have all been verified by camera. The counter has proven to be very accurate regardless of the water levels. The counter has two operational crumps and there is a complete set of data for the year. The cables will be upgraded in 2019 to ensure accurate counts for this site going forward.



Table 41: Counter data for the Dawros River

Fish Species	Number
Spring salmon	251
Grilse	1074
Late Summer Salmon	121
Sea Trout	1818

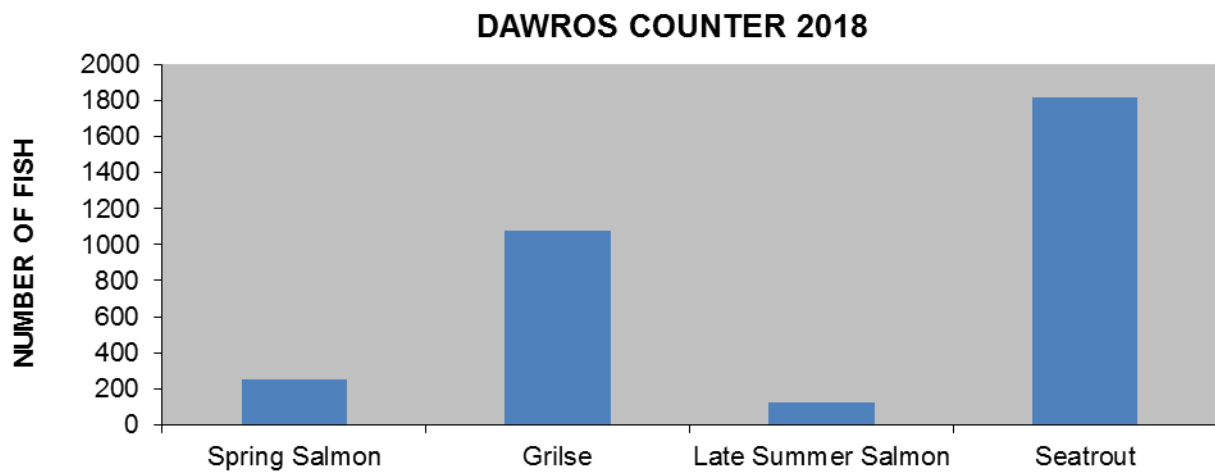
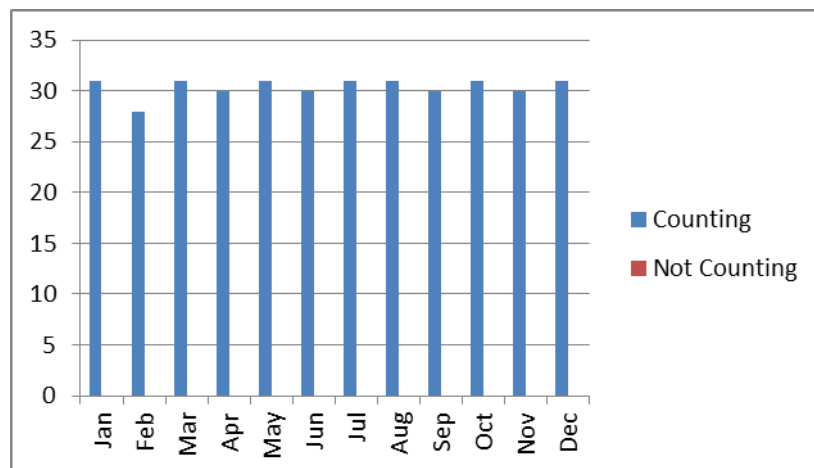


Table 42: Counter Operations

Counter Operational (Days)	Counter not operational (Days)
365	0



22 Culfin River



Counter Type: Logie

Operating: Jan – Dec 2018

Performance: V. Good

Verified: Yes

22.1 River site and description

The Culfin counter is located in Lettergesh village down-stream of Lettergesh Bridge. The river is open for angling with a surplus of fish. The structure is a purpose built weir with two counting channels. The counts are verified by CCTV. The fishing rights are privately owned by the Ormsby and Thomson families.

22.2 Operation

The counter has not had any problems and worked consistently throughout the year. The counter has been carefully maintained and has produced accurate verifiable figures. The numbers of fish remains constant each year. A small number of Lamprey have been identified crossing the counter from time to time. A new computer has been purchased for this site and will be installed in early 2019.



Table 43: Counter data for the Culfin River

Fish Species	Number
Spring salmon	97
Grilse	468
Late Summer Salmon	01
Sea Trout	109

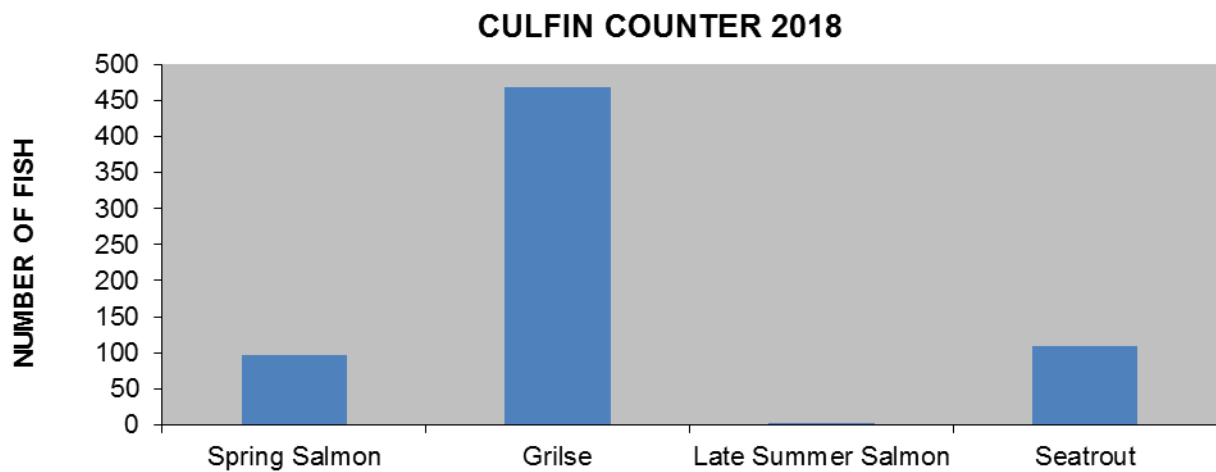
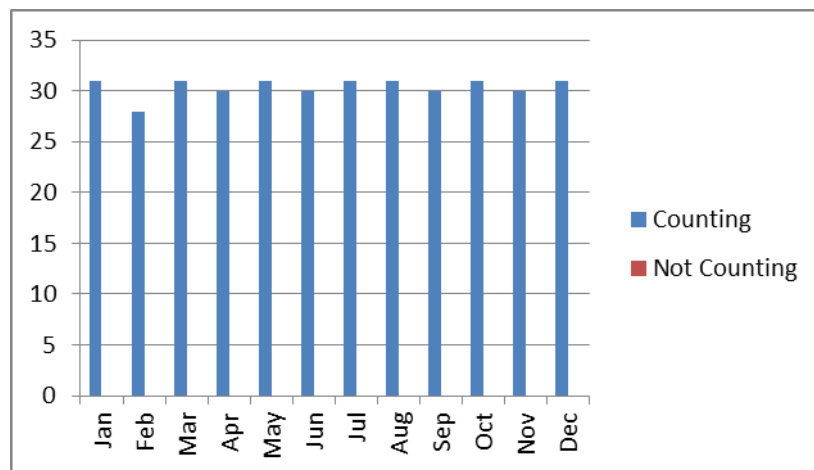


Table 44: Counter Operations

Counter Operational (Days)	Counter not operational (Days)
365	0



23 Erriff River



Counter type: Vaki

Operating: Jan- Dec 2018

Performance: V. Good

Verified: Yes

23.1 River site and description

The Erriff River is The National Salmonid Index Catchment River for IFI. The River has been one of the principle salmon and sea trout fisheries in the West of Ireland. IFI operates a Vaki counter on the river. The location of the counter is at the top of the fish pass which allows migrating fish to pass the famous Aasleagh falls.

23.2 Operation

The counter work well all year with the data being collected by the counter and verified by trap data. This unique setup allows IFI to assess the efficiency of the Vaki as a counter. In addition a pit tag reader has been installed to detect certain tagged research fish entering the system. The run of salmon was an average run for the river. The number of sea trout was lower than expected which may be partially attributable to increased predation associated with very low water levels. The data is a net figure for wild fish entering the system as all ranched salmon are removed from the system at the trap and are not allowed to access the river to spawn. One escapee farmed salmon was recorded and no pink salmon were noted in 2018.



Table 45: Counter data for the Erriff River

Fish Species	Number
Spring salmon	142
Grilse	2494
Late Summer Salmon	66
Sea Trout	2016

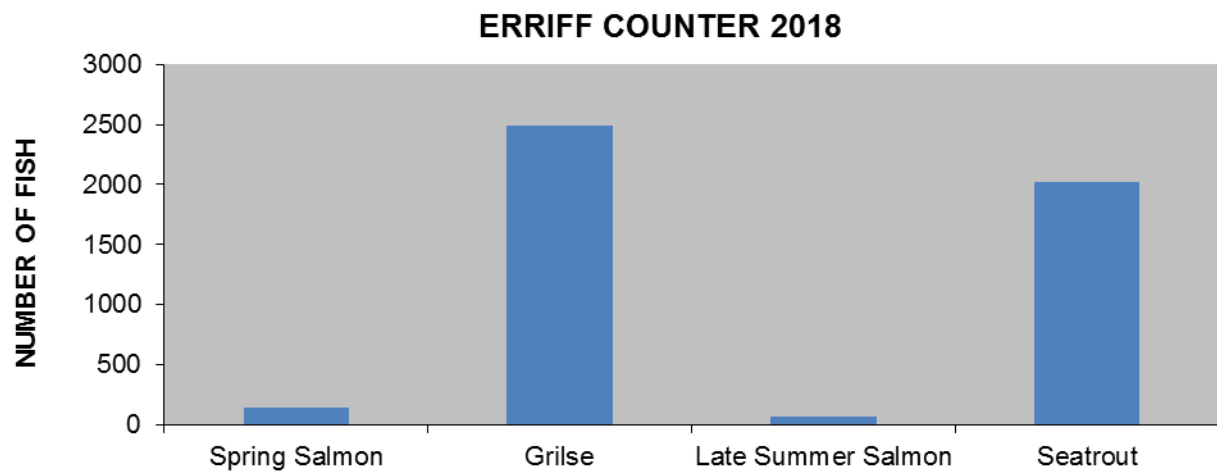
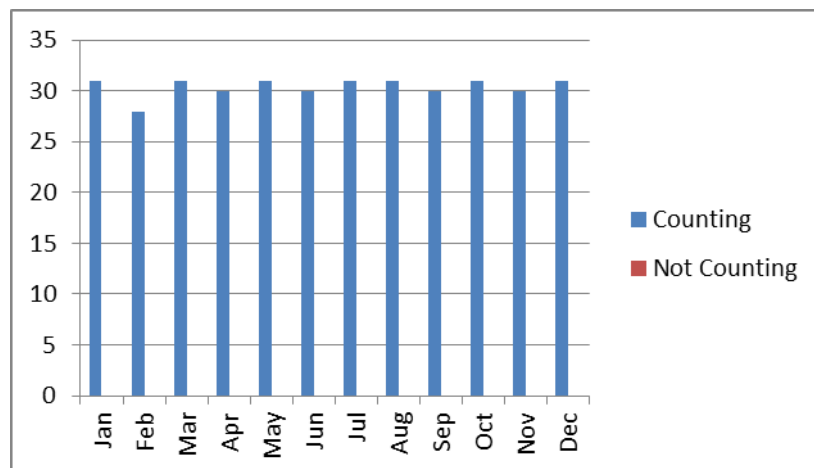


Table 46: Counter Operations

Counter Operational (Days)	Counter not operational (Days)
365	0



24 Bunowen River



Counter type: Logie

Operating: Jan-Dec 2018

Performance: V. Good

Verified: Yes

24.1 River site and description

The Bunowen River is partially owned by the state and managed by Inland Fisheries Ireland. There is a small section of the river that is privately owned. The river is 10 kilometres in length and drains an area of 75km squared which includes three lakes. The counter is located beside the IFI store at Ballyhip, Louisburgh, Co. Mayo.

24.2 Operation

The counter has performed well over the year and continues to provide an accurate total count for the river. The computer was replaced in early summer to ensure the data was verified on this site. The location of the counter is well upstream of the confluence with the sea. The counter usually records a late run of fish – this is not due to fish entering the river late in the season but is due to fish resting in the deep pools in the lower section of the river over the summer and only ascending the river to spawn in November and December.



Table 47: Counter data for the Bunowen River

Fish Species	Number
Spring salmon	54
Grilse	231
Late Summer Salmon	503
Sea Trout	95

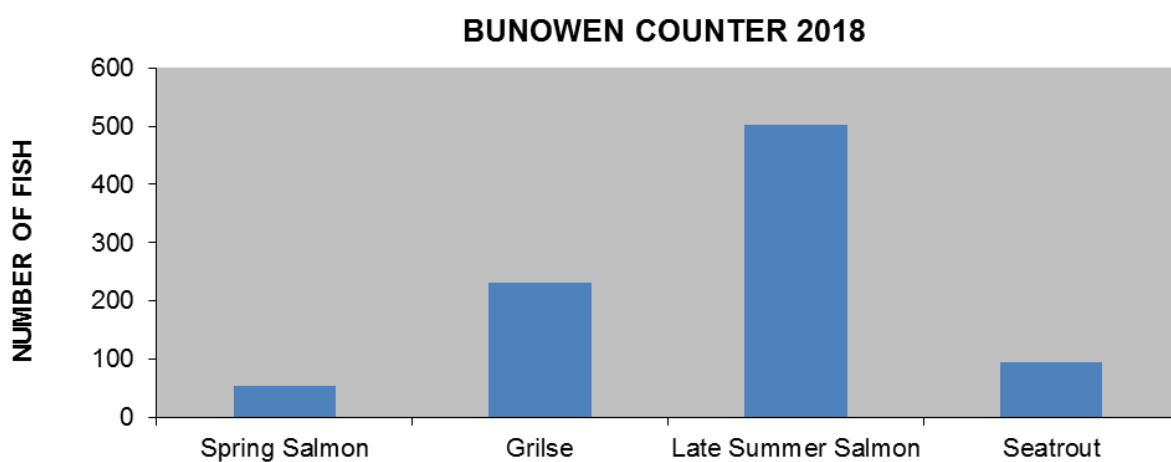
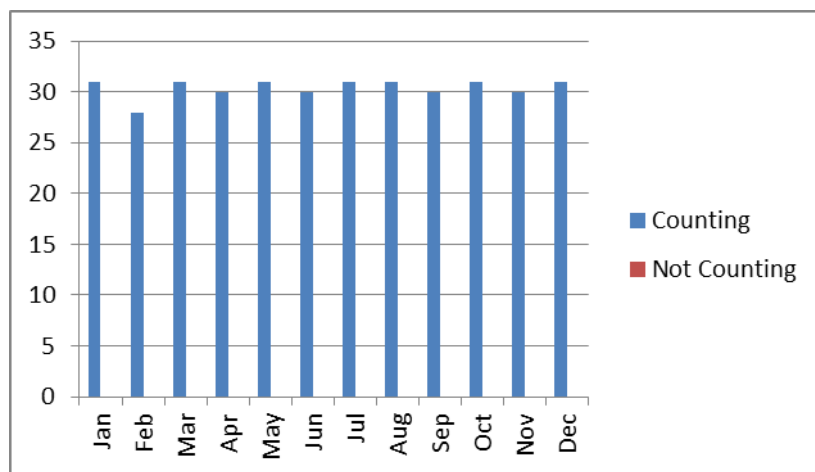


Table 48: Counter Operations

Counter Operational (Days)	Counter not operational (Days)
365	0



25 River Moy Counters



Counter type: Logie and one Vaki

Operating: Mar – Nov 2018

Performance: V. Good

Verified: No

25.1 River site and description

The completion of the refurbishment works on the Ballina Salmon Weir allowed for the re-introduction of the counters on the Moy River. Following an upgrade in 2014 there are now two Logie counter crumps and two Vaki counters which were installed in May of 2012. The counters are located on the site of the refurbished weir. The four counters provide a partial count for the river.

25.2 Operation

The counters worked well over the summer period to capture the main run of fish. However, the most significant numbers of fish travelling upstream do so through the Queen's gap without being counted. The counts from year to year depend on water level and can vary significantly; the facility only provides a partial count. Counting in the winter months is limited due to the risk of leaving the gates closed and the resulting flood risk to the town. A funding application for a new Vaki to replace the older model was successful and will be installed in 2019.



Table 49: Counter data for the Moy River

Fish Species	Number
Spring salmon	1078
Grilse	3756
Late Summer Salmon	5761
Sea Trout	0

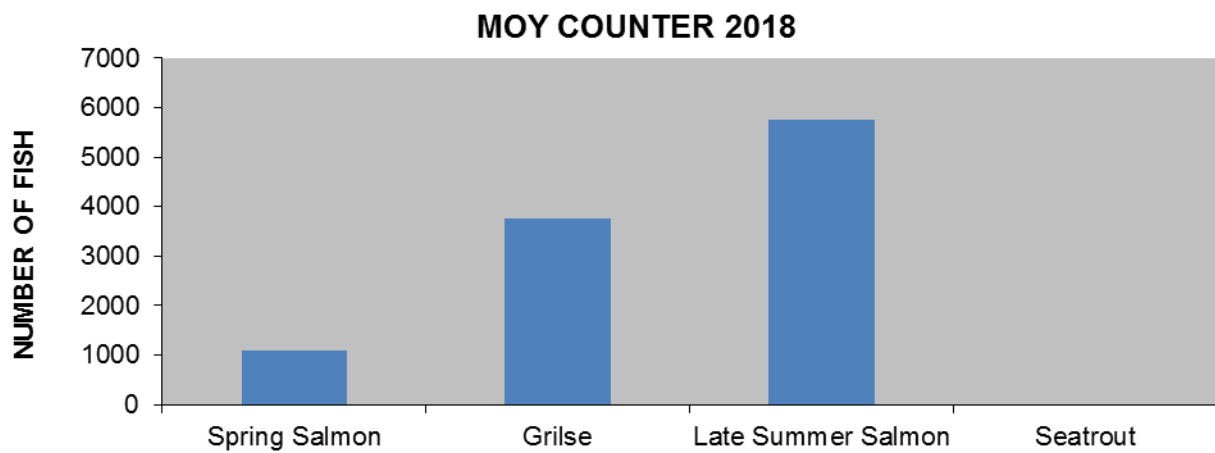
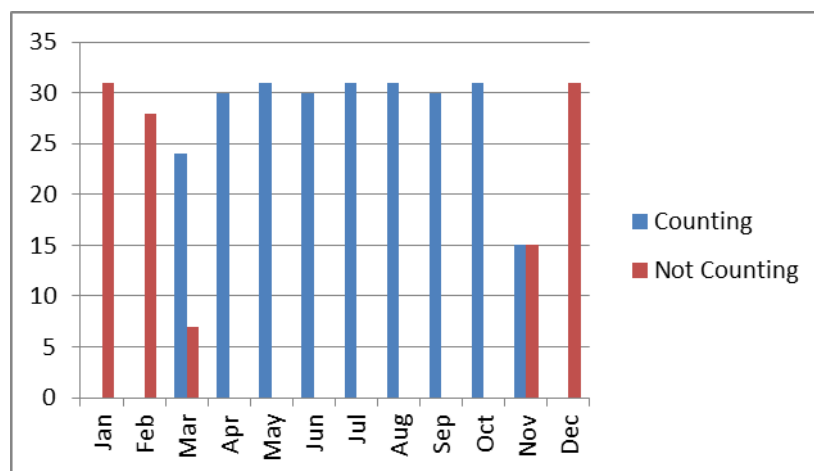


Table 50: Counter Operations

Counter Operational (Days)	Counter not operational (Days)
253	112



26 Eske River



Counter type: Logie

Operating: Jan- Dec 2018

Performance: V Good

Verified: Yes

26.1 River Site and Description

The Eske fishery consists of the 5km River Eske, the 900 acre Lough Eske and its tributaries. The fishery has a run of spring salmon, a good run of grilse and late salmon. The counter at this installation is a resistivity (Logie) counter.

26.2 Operation

The counter worked well all year and a full count for the year on all 3 channels was obtained. There were fewer power cuts this year and the U.P.S. coped with all of these since they were of short duration. The counter was downloaded and all data was verified on a weekly basis giving accurate counts for the river. Cameras, cables, connections and equipment were maintained and repaired when necessary during the year.



Table 51: Counter data for the Eske River

Fish Species	Number
Spring salmon	59
Grilse	287
Late Summer Salmon	83
Sea Trout	107

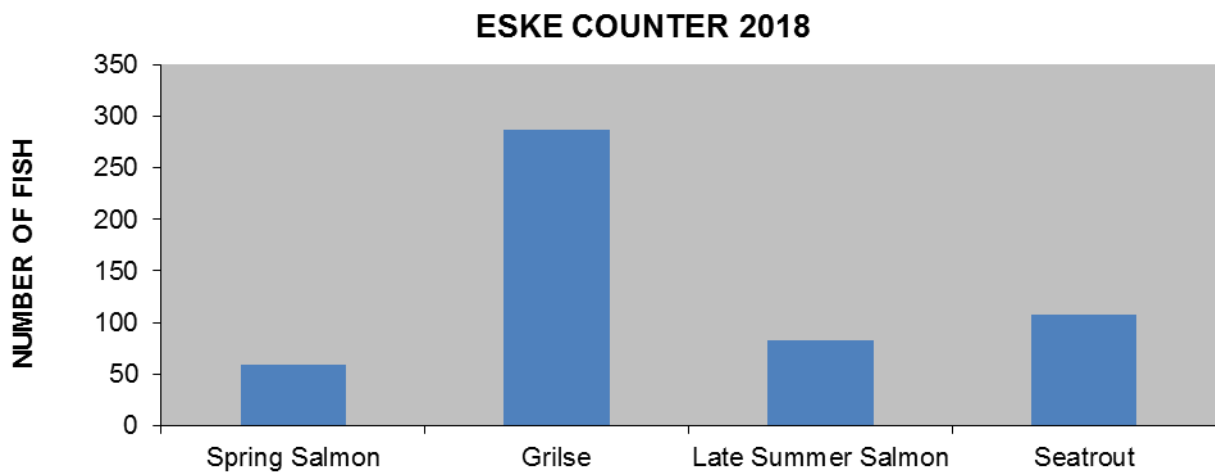
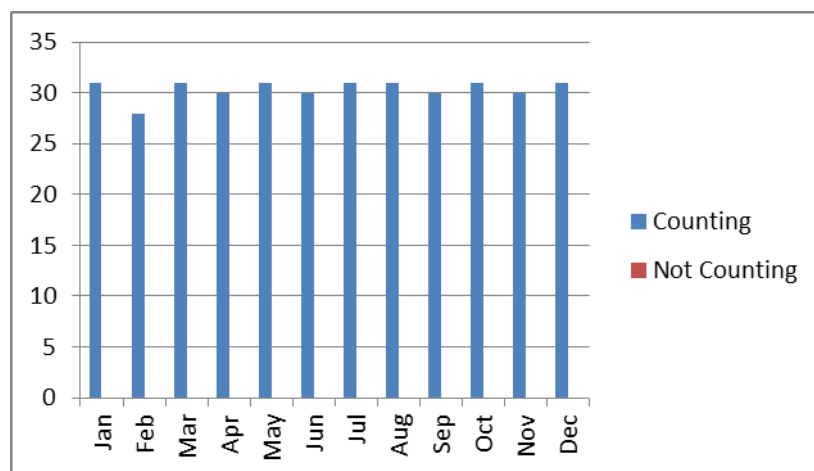


Table 52: Counter Operations

Counter Operational (Days)	Counter not operational (Days)
365	0



27 Eany River



Counter type: Logie

Operating: Jan- Dec 2018

Performance: V Good

Verified: Yes

27.1 River site and description

The Eany water fishery is a spate river and forms part of the 125sq km Eany catchment area comprising the Eany water, the lower reaches of the Eanymore and the lower reaches of the Eanybeg. The fish counter is located in the lower section of the river just above the tidal area. The fishery has a small run of spring fish but is noted for its midsummer runs of grilse, late runs of summer salmon and for sea-trout.

27.2 Operation

The Logie counter worked well resulting in a comprehensive count for the year for the river. A small number of maintenance issues were sorted out promptly and this ensured a continuous accurate count. All of the data collected by the counter has been verified by CCTV cameras.



Table 53: Counter data for the Eany River

Fish Species	Number
Spring salmon	156
Grilse	421
Late Summer Salmon	101
Sea Trout	01

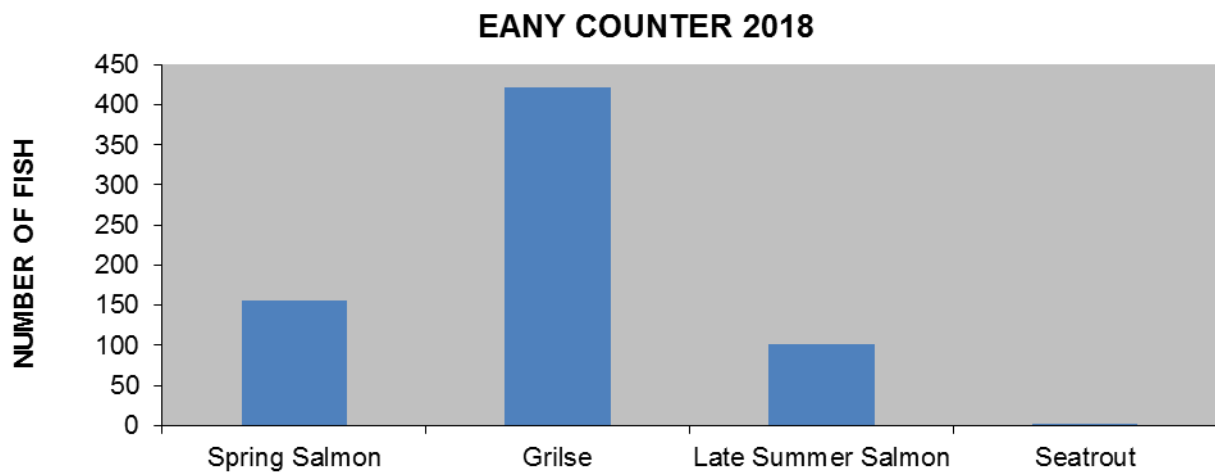
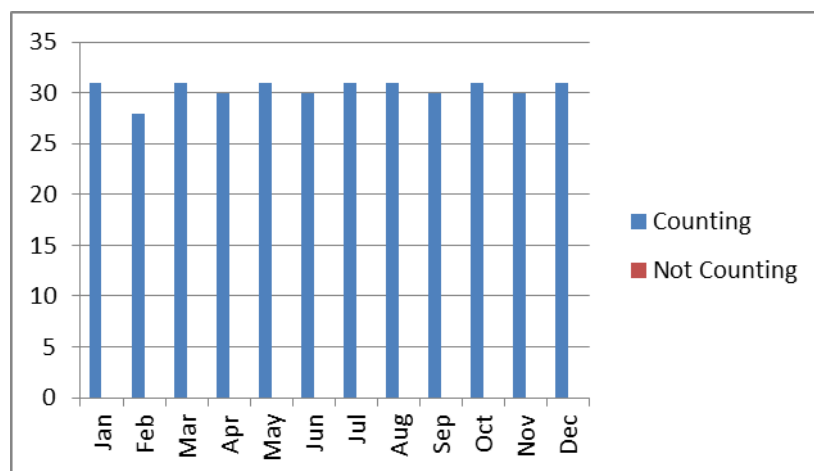


Table 54: Counter Operations

Counter Operational (Days)	Counter not operational (Days)
365	0



28 Lackagh River



Counter type: Logie

Operating: Jan–Dec 2018

Performance: Excellent

Verified: Yes

28.1 River site and description

The Lackagh fishery is situated partially within Glenveagh National Park and within an S.A.C. This fishery is one of the few recognised multi-winter sea winter salmon fisheries in the North West. This fishery is currently below its conservation limit. The new counter has been built and was commissioned early in 2017. The counter is a three channel resistivity counter with verification cameras on all three crumps. The counter has been engineered with a walkway to allow for easy access for maintenance and repairs.

28.2 Operation

The counter has been funded by the “Salmon Conservation Fund” and commissioned in April 2017 and has counted successfully since installation. A new computer has been installed to test new software and hardware for the fish counter programme. All fish movements were verified on the site. The counter has performed well on this site and has provided very accurate counts.



Table 55: Counter data for the Lackagh River

Fish Species	Number
Spring salmon	60
Grilse	335
Late Summer Salmon	27
Sea Trout	214

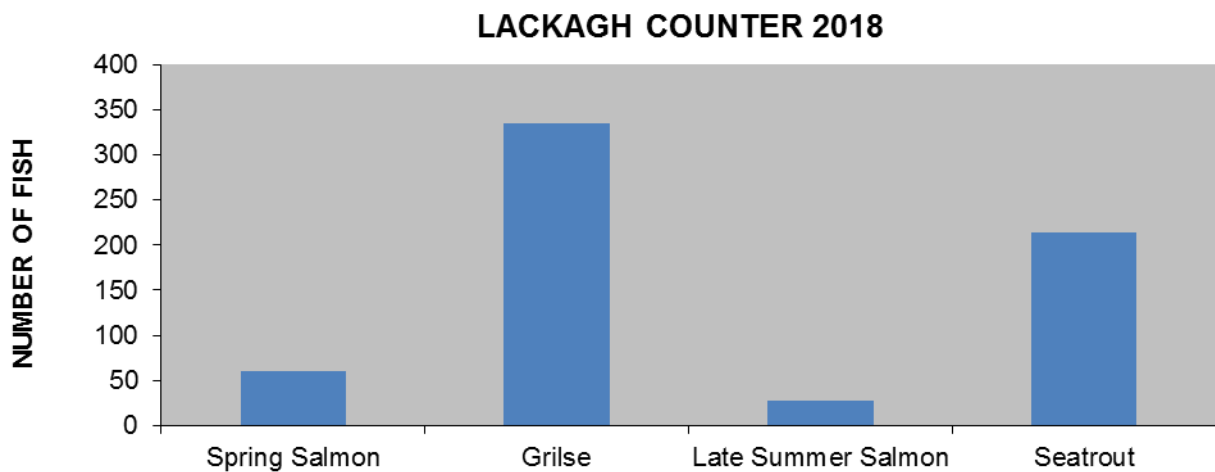
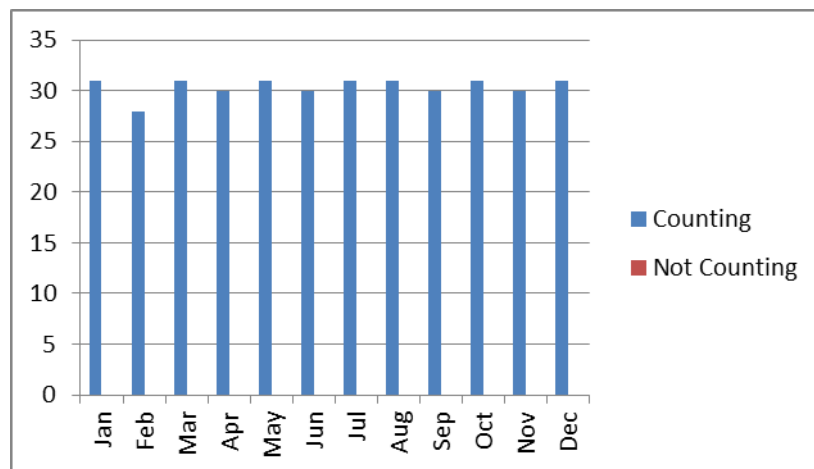


Table 56: Counter Operations

Counter Operational (Days)	Counter not operational (Days)
365	0





Conclusion

The fish counter programme has operated successfully with almost all the counters sites providing accurate verified data for the year. Investment in the fish counter programme continued with replacement and additional CPU's, cameras, cables and accessories. A risk based development plan for the fish counter programme to ensure a planned investment programme has been drafted. IFI have invested in significant spares for existing counters so that any counter that goes down can be back operational in as short a time as possible. There is a delay currently on new Logie counters but it is anticipated that this will be resolved in the coming year. Two new Vaki counting units will be installed to replace the old Vaki counters on the R Dee and the Moy in 2019 this will be completed as soon as water levels are suitable.

Plans for 2019 include the continued maintenance and upgrade of the existing sites to ensure that they all deliver complete data set. The programme continues to require investment in time and money to ensure it can deliver the verified information required.

Acknowledgements

The compilation of this report would not be possible without the expert work and efforts made by many staff attending to the counters and the relevant software. I am also indebted to the team of staff who put in the time working on the counters and verifying the results. The work by Kealan O'Higgins related to the development and completion of the web site contracts is much appreciated. The expertise of Padraic O'Malley has been paramount to getting this project so far but many others need to be thanked as well including, amongst others: John Kenny, Tommy Ginnelly, Myles Roban, Stephen Byrne, Jane Gilleran, Colm Walsh, Catherine Dwane, Ciaran Jennings, Kevin O Brian, Paddy Halpin, Declan Cooke, Lindsey Clarke, Ken O'Neill, Barry Kelly, Walter Butler, Grainne Dunne, Lorraine O'Donnell, Josie Mahon, Alan McDonnell. It is clear from the large number of staff involved that the counter programme remains a very significant annual achievement by fisheries field staff.

I am sure there are others whose assistance has been required and to them, and all the team I would like to acknowledge their efforts and commitment.