Salmon research report 2012

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www.gwct.org.uk/salmonreport

Game & Wildlife
CONSERVATION TRUST

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Front cover: The GWCT Salmon & Trout Research Centre's salmon counter with the river in flood. Below: Smolts waiting to be checked and measured; William Beaumont electro-fishing.

1. Abstract

Welcome to the 2012 report from the Game & Wildlife Conservation Trust's Salmon & Trout Research Centre. This gives a brief summary of the research carried out on the salmon populations of the River Frome, Dorset over the past year.

2012 was the 40th year of the East Stoke salmon counter's operation. It was also the worse year on record for problems in collecting salmon population data. A combination of drought, flood and a large (accidental) release of large carp into the river combined to reduce dramatically our recent accuracy in population estimation. Parr numbers in the river in September 2011 were extremely low at around 64,000. Due to the high flows, only limited data were collected on the number of autumn migrant parr that went past East Stoke in 2012, so no total figure is available.

The spring monitoring of smolts was interrupted by heavy rainfall at the end of April. Preliminary estimates put the run at about 7,000 smolts. Due to extremely high river flow, we are unable to give an estimate of the annual run of adult salmon from just the counter data. Information from PIT tag returns indicate that at least 525 salmon ascended the river.

The collaboration with the Poole Harbour netsman continues and we caught six sea trout and one salmon that were tagged and released. Research continues on the effect of using Rotary Screw Traps to assess salmon smolt numbers and work on assessing the medium and long-term effect of Archimedes screw turbines on salmon smolts and eels will start in 2013.

Further Passive Integrated Transponder (PIT) tag reading equipment will hopefully be installed at Ilsington, 20 kilometres upstream of East Stoke, which will help to add to our data.

Professor Nick Sotherton
Director of Research

Acknowledgements

We are grateful for the support of the following organisations and people: Freshwater Biological Association; Environment Agency; Centre for Environment, Fisheries & Aquaculture Science; the Atlantic Salmon Trust; the Salmon & Trout Association; the Frome, the Piddle and the West Dorset Fisheries Association; Mr Anthony Daniell; the Valentine Trust; The Iliffe Family Charitable Trust; the Alice Ellen Cooper-Dean Charitable Foundation; the Balmain Trust; the Frome Conservation Fund and Mr Rupert Harris.

Bindon Abbey: The help and funding from the Lulworth Estate and the Salmon & Trout Association for the PIT tag detectors are gratefully acknowledged.

Finally, and importantly, we are grateful to the many land and fishery owners on the River Frome who allow us access and enable us to carry out this research.

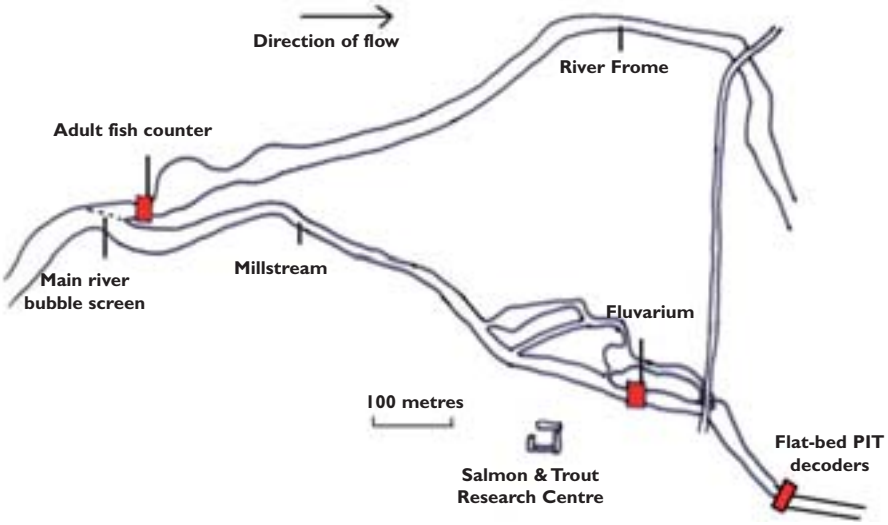
2. Introduction

This year marks the 40th consecutive year of operation of the East Stoke fish counter, recording the upstream movement of Atlantic salmon *(Salmo salar L.)* in the River Frome. As such, it is one of the most comprehensive, long-term records of salmon movement in England and Wales.

Since 2009 the counter has been managed by the Game & Wildlife Conservation Trust (GWCT). But as always, the help and support of the Freshwater Biological Association (who own the site) is gratefully acknowledged.

Over the 40 years of monitoring the salmon population we have also built up an unparalleled infrastructure in the river that enables us to monitor both the adult salmon migrating upstream and the juveniles going downstream. The site also allows the detection of small Passive Integrated Transponder tags (PIT tags) that we use to individually mark juvenile salmon. Figure 1 gives a schematic plan of the East Stoke site.

Figure 1
Site plan of the counting equipment at the Salmon & Trout Research Centre at East Stoke



The combined counting and tag detection facilities for both adult and juvenile stages at East Stoke offer a unique opportunity to answer questions and conduct research that would be difficult to repeat at other sites. In particular, the use of PIT tag technology means that we are able to get a greater understanding of:

- The critical mortality phases of salmon.
- The site-dependant factors that affect mortality and emigration in the river.
- The interactions between the freshwater production of smolts and the marine production of adults.

Data from this research will enable intelligent management and conservation of the stock.

River conditions for running our various counting systems in 2012 could, at best, be described as challenging. There was some disruption to our operations when

extreme floods interrupted both smolt and adult counting. In addition, the floods led to an escape of large carp into the river. This resulted in a large number of records on the adult counter which during flood periods could not be verified by video. Estimates of parr abundance and smolt counts are presented as usual, but estimates of autumn migrants were lost. This year, we can only provide a minimum estimate of adult salmon numbers.

In 40 years, this is only the third time that calculation of only minimum estimates were possible and the first time when it was caused by adverse weather conditions.

3. Salmon research report

The principle aim of our research on the River Frome is to estimate the population numbers of salmon at different stages in their life history (parr, smolts and adults). From this we can estimate the mortality between those stages and try to understand the causes.

All of the population estimates for juvenile salmon rely on the detection of PIT tags in individual fish swimming past our main river PIT tag detector. The high water levels throughout the year meant that in the main river, PIT tag detection vanes had to be raised to prevent damage. It was only possible to run this detector for about half the year (in 2011 it ran for 90% of the year). Nevertheless the floods still took their toll on the equipment and major repairs are now in progress. This has resulted in a delayed reporting of a precise estimate of the 2012 smolt run until the adults from this run return; although we still present a less precise estimate for the time being. No estimate was possible for the number of autumn migrants.

The flat-bed style detectors installed at Bindon Abbey in 2011 have not been affected by the high water conditions and provided data on tagged adult fish. Although they are not designed to detect the mid-water migrating juveniles, some juvenile tags were detected and this will fill in some gaps in the data.

The floods have damaged some of our equipment and large-scale repairs are now in progress.

Parr populations

Trying to estimate the total number of parr in the entire river is very difficult. If carried out by electro-fishing alone you would have to fish every metre of the river: an impossible undertaking. However, it is possible to estimate numbers by marking some of the population and then catching them later on to see what proportion are marked. We use a variation of this method to determine the number of parr in the river, using PIT tags as our method of marking.

For each of the past eight years, in September, we have electro-fished and tagged approximately 10,000 juvenile salmon (about 10-15% of the juvenile salmon population of the whole river) with PIT tags. These small tags (just 12mm long x 2mm wide) are inserted into parr and enable us to individually identify the fish when they swim past any of our readers.

In 2012 the conditions for electro-fishing were difficult, water levels were unusually high and the distribution of parr was different from previous years; with

previously abundant sites producing few fish. This meant we had to extend our searches (fishing an extra nine kilometres of river), but despite these problems we still managed to tag 8,600 parr.

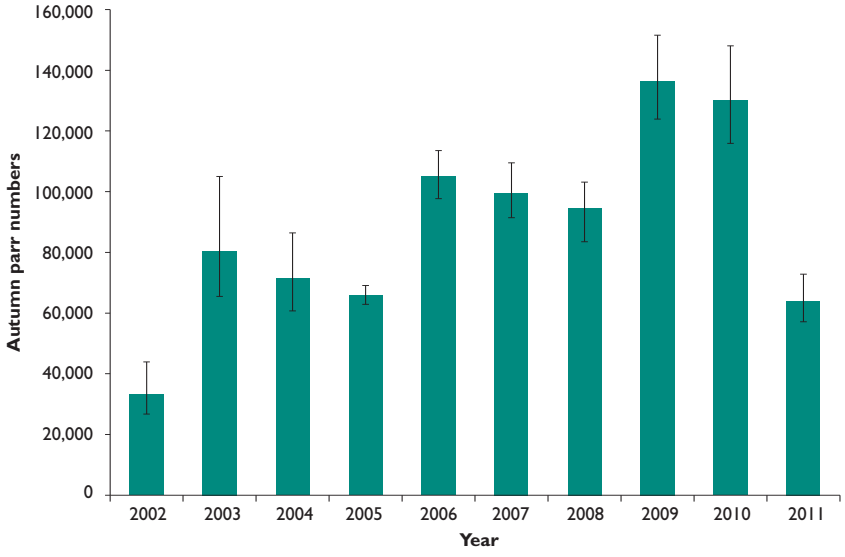
Salmon parr and PIT tag (circled). Individual ID of the tag is shown on the label.

The passage of the PIT tagged fish out to sea is recorded by equipment mounted on the East Stoke smolt counter and the main river weir. The main river reader also allows the detection of the returning PIT tagged adult fish. There are also detectors mounted on the Louds Mill fish pass at Dorchester, at Tadnoll Mill on the Tadnoll Brook and the weir, hydro-turbine system and fish-pass at Bindon Abbey. We are currently planning to improve the design of the Bindon readers to detect smolts more efficiently and also install a further set of readers at Ilsington (20 kilometres upstream of East Stoke). This will give further information on within-river variation in movement patterns and more information regarding juvenile and adult migration patterns.

This combination of autumn tagging and spring smolt counting with tag detection allows us to get an estimate of the total number of salmon parr in the river in the autumn. We need to know the number of tagged fish in the following year's smolt run to calculate this so only data to 2011 can be shown (see Figure 2). These records, together with the records from the other PIT readers, are giving us uniquely valuable information about freshwater survival rates. The information will enable us to determine survival from individual reaches of the river and link the growth rates of the juvenile fish with the time of migration. Data on freshwater survival, marine survival and life history strategy from different tributaries will also be available.

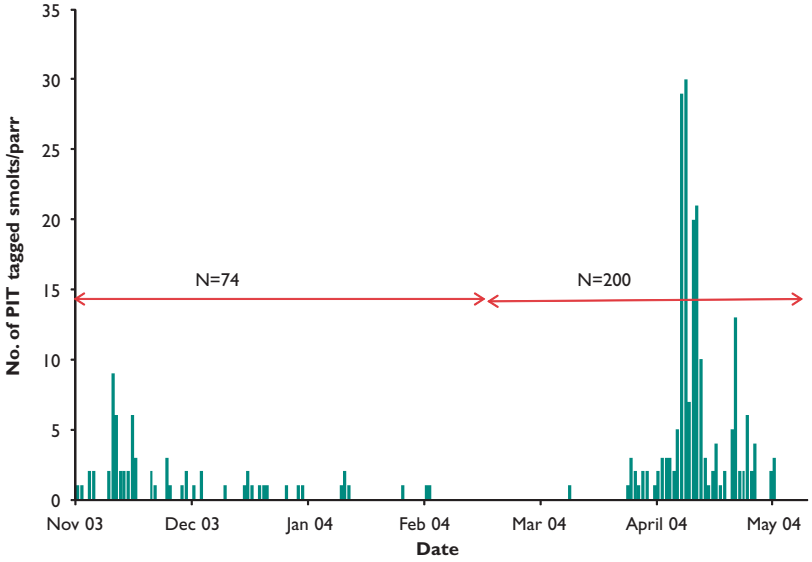
The calculated numbers of parr for 2011 are very low (the lowest number we have recorded for the past eight-years). These low numbers, together with our difficulty in catching parr this year, are likely to have a major influence on numbers of returning adults in subsequent years.

Figure 2
Estimated autumn parr numbers with confidence limits



Autumn migrants

The PIT tag detector vanes on the main weir also allow us to monitor the 'autumn' downstream run of parr in the river (see Figure 3).



Due to the high water discharge, we could not run the main river PIT tag reader at the critical time of the autumn migration.

Figure 3

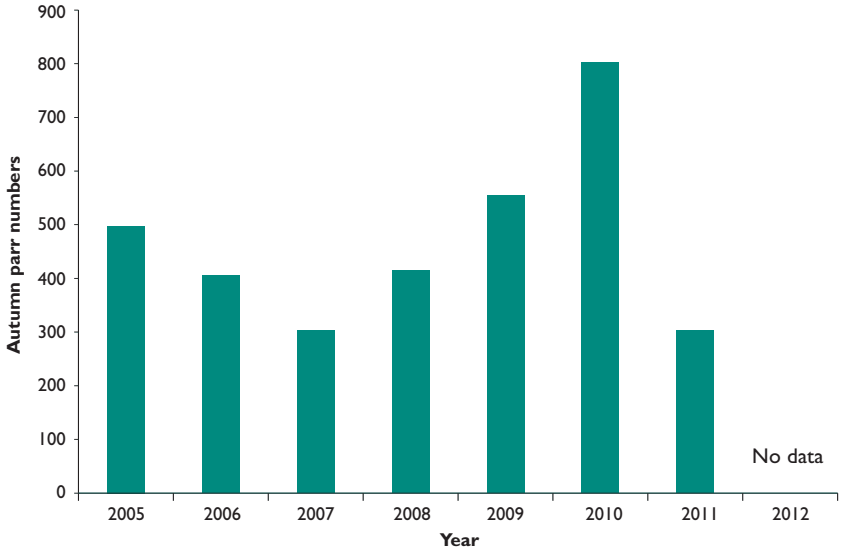
The autumn migrant run and the 'normal' spring smolt run 2003/2004

N= No of tags detected during period covered by red arrows

This phenomenon, although previously reported, is still not fully quantified or explained. Our studies show that this movement is an active downstream migration ie. the fish are not just passively drifting downstream, but are unable to tolerate salt water. We have found that many of these fish reside over winter in the lower river as far downstream as Wareham and we are working with Government scientists from Cefas to further study the biology and behaviour of these fish. We have recorded the first return of an adult fish that was an autumn migrant (Riley *et al.* 2009) and we will continue to examine returns from the adult fish to see if

the survival of these early moving fish is better than the fish that migrate in the spring, the 'usual' migration time for the smolts. We are also looking at the additional dangers these 'autumn migrants' face in the lower river. Due to the high water discharge in 2012, we could not run the East Stoke main river PIT tag reader at the critical time of the autumn migration. As a consequence, this year we will not be able to estimate the number of autumn migrants (see Figure 4). Some minimum estimates will be available from combining the East Stoke and the Bindon Abbey data.

Figure 4
Numbers of tags detected during the 'autumn' run of parr



Salmon smolts swim down the river and are diverted down the millstream by the acoustic bubble screen.

Smolt counting

Since 1995 we have been trying to count the number of smolts emigrating from the river. To do this we use a device called a Bio-Acoustic Fish Fence (BAFF) to divert the fish into the millstream at East Stoke. The BAFF is simply a curtain of bubbles that also has sound entrained within the bubbles, thereby using both the visual impression of a barrier (the bubbles) with the sound to divert the fish. Provision is made for adult fish to be able to negotiate the apparatus and additional studies have shown that the system does not affect upstream adult movement. We direct the smolts down the millstream so that the fish can pass through the fluvarium tanks where (being a smaller volume of water) we can count them electronically. The data

from the early years of the smolt counting were not good quality and in some years no estimate at all was possible. However, as equipment and methods have improved, better estimates have been possible.

Low flows in April and early May gave us some problems, but for the majority of the 2012 smolt run we achieved good estimates of smolt abundance. However, on 25 April smolt counting was affected by a high flood event and resulted in the system having to be completely closed down for 36 hours (see Figure 5). We believe that the majority of smolts had passed downstream of the counter by then but because of the uncertainty of this, we have produced an initial estimate of smolt abundance (see Figure 6) that will be adjusted to a more accurate estimate once the tagged adults from this run return.

The low numbers of smolts corresponds with the low numbers of parr we found in the river in September 2011 and gives cause for concern about future adult run numbers.

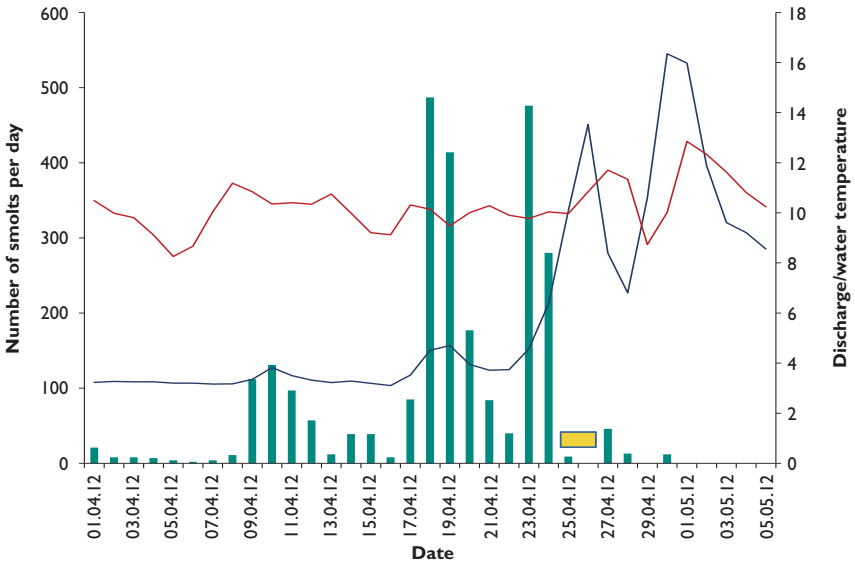


Figure 5
Daily count of smolts, mean discharge records and daily mean temperature

We believe that there is a serious gap in our knowledge of juvenile salmon over the winter period. Our spring smolt output appears to be low in comparison with the number of parr the river holds in the previous September, even after accounting for the autumn migration. We have therefore started a new study of the over-wintering ecology of salmon parr, concentrating on migration, habitat requirements and habitat shifts. We will report on this work in future years.

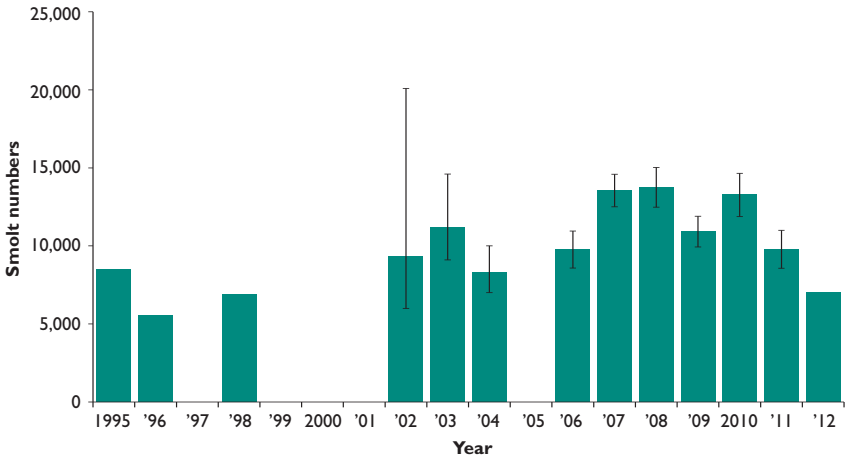


Figure 6
Annual smolt estimate and confidence limits (where available)

High flows at the counter showing the flooded side channels; and how near we were to losing the shed containing all our computers and cameras.

Adult numbers

Data are collected by a resistivity counter connected to three stainless steel electrodes, mounted on the Environment Agency gauging weir at East Stoke (NGR SY 867868). The counter works by constantly measuring the electrical resistance of the water. When a fish of sufficient size passes over the electrodes the resistance changes and is registered on the counter. A full description of the history of the counter and preliminary long-term results are given in Beaumont *et al*. (2007).

In conjunction with data on salmon movement, information on water temperature, air temperature, rainfall and light levels are also collected at 15 minute intervals from purpose-built instrumentation and an on-site weather station. Hydrological (discharge) summaries are derived from Environment Agency data (Copyright © Environment Agency). All data are collated into hourly records.

Salmon run data are presented for the period February to January inclusive. Past data and personal observations indicate that the majority of the upstream movement in January is caused by the continued migration of fish from the previous calendar year migrating to spawn, not fish migrating to spawn in 11 months time.

Data are presented either as total numbers ascending or descending or nett numbers ascending (ie. upstream minus downstream). Unless noted, all data are of verified counts.

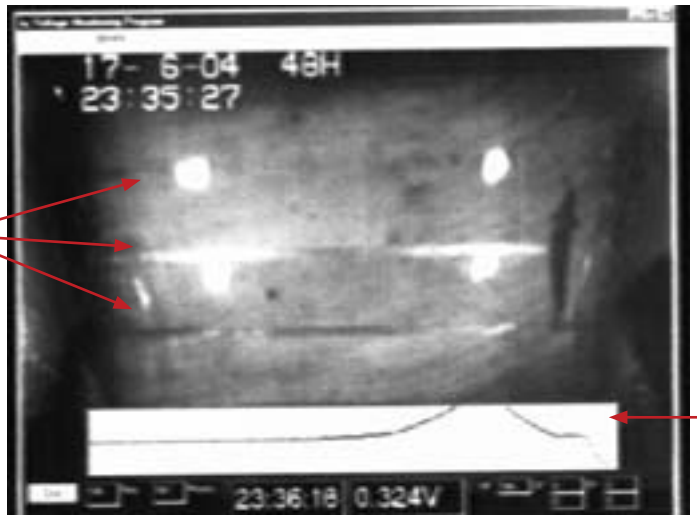
During January, February and March the downstream counts are not subtracted from the upstream counts, as a high percentage are caused by downstream moving kelts (post-spawning salmon). Some kelts, however, carry out repeated up and down movement over the weir and if down-counts are not subtracted this can lead to over counting these fish. Therefore, where it is clear that up-counts have been caused by kelts, these are subtracted from the totals.

Data verification

A large part of the effort in running the East Stoke counter is focused on verifying and matching the various 'counts' from the monitoring equipment. Data are verified by a combination of trace waveform analysis (see Beaumont *et al.* 1986), video frame-grab and videotape analysis where we look at each fish. Only rarely are raw, unverified data used. An example of the computer verification system's display is shown below. A salmon can be seen on the video picture and the electrical trace is shown on the bottom section of the screen. Text boxes along the bottom of the display record: number of records; number of frame grabs; input signal value; time of day; number of records registered by computer and counter.

When the computer and video system was operational, accuracy of waveform assessment was carried out by comparing identity assessed from computer waveform traces with identity observed from video records. For periods when the computer system was not operational, counts were assessed by direct examination of the video data. Raw data from the counter are rarely used in an unverified form and the data for the run are compiled from a combination of counter, computer and video records ie. all computer trace records and counter records

are checked on the video to identify the cause of the record. Raw fish counter data are only used when computer or video data are not available. Provided adequate water clarity, video records are 100% accurate and assessment of accuracy of interpretation of the computer records is made from comparing trace identity with

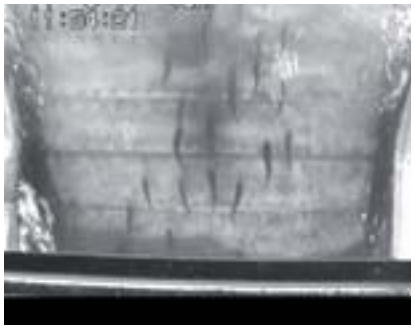


Screen display from the computerised counting and evaluation system. The image shows a 75cm salmon ascending the weir.

the video records. Where water clarity is poor, only computer trace records are used to verify data. Data are not corrected for verification error.

Despite the counter working every day last year, with only three days of waveform verification being lost, 2012 has been the worst year on record for assessing adult salmon numbers. With the river running above the 75 percentile (ie. the river is lower than this for 75% of the time) for nine continuous months and above the 95 percentile for six continuous months (see Figure 11), adult salmon were able to ascend the river by way of the side weirs. These weirs have no detection systems installed and so fish swimming up them are not counted. Under 'normal' flows the fish usually migrate up the centre (monitored) channel: the design of the side weirs being such that it is difficult for fish to migrate over them during normal flows.

We consider the threshold flow that above which salmon can migrate over the side weirs to be 10 cumecs. In 2012, at the times of year when adults were likely to be migrating up the river, this threshold was exceeded for 94 days. This is over four times the average number recorded for the past nine years.



(Far left) A large sea lamprey;
(Left) A shoal of mullet going over the weir.

In addition to the problems of detecting fish, in early July a large and rapid rise in water level (the discharge doubled in 24 hours) led to the inundation of a lake about 15 kilometres upstream of East Stoke. The lake contained big carp and large numbers of these escaped and drifted downstream. The magnitude of the escape was such that it even made the national press. These fish initially created a large number of down-counts over the weir and large shoals were seen milling in the weir-pool. As they became accustomed to flowing water, however, they soon began to ascend and descend the weir and create large numbers of up and downstream counts. Trace waveforms of these carp, when they were visible on video, were indistinguishable from adult salmon. With the cloudy water that accompanied further flooding in August (and for most of the rest of the year) we were not able to

An example of one of the large carp caught on the East Stoke beat. © D Hogg

discriminate accurately between the carp and salmon and therefore could not verify the electronic counts. The upstream counts in mid-August therefore could consist of a mixture of carp and salmon. In September the large numbers of electronic counts were not used based on the historically low run of salmon in this month. As with the August number the (relatively) large numbers of counts in October (a month when large numbers of salmon do migrate upstream) could consist of both salmon and carp.

After the initial flood events, water clarity was relatively good; however, the depth of water was such that video verification could only be carried out for 201 days with many of the missed days being in the core migration period. Likewise we have not been able to carry out any video analysis using the underwater side-viewing cameras.

Adult data 2012

Figure 7 shows daily upstream and downstream counts together with mean daily discharge data. The table shows monthly data from the counter and gives gross upstream and gross downstream counts as well as the nett upstream count and the number of ascending kelts not included in the upstream records.

No annual estimate of adult salmon is available for 2012
A minimum of 300 adults ascended the river

In view of the above, we have calculated a return number from the PIT tag records (East Stoke and Bindon Abbey combined) and that data indicates that **at least 526 fish ascended**.

Figure 8 shows the historic annual nett run data (with pre-1985 data being corrected for down-counts). For only the third time since we began running the counter, only a minimum estimate of upstream migration is possible.

Figure 9 shows the time of day of fish movement over the weir. The avoidance of daylight hours during the summer months and the preference for daylight in the October to December period can be clearly seen. As yet we are not sure of the reason for this variation in run pattern.

PIT tagged adult returns

The high flows experienced in 2012 resulted in the main river PIT tag reader having to be lifted for long periods. Over the year the system was only fully operational for 40% of the time; detecting 14 PIT tagged adult salmon. We also recorded seven tags on the Millstream PIT tag readers and an additional 25 tags were recorded on PIT tag readers installed at Bindon Mill.

We have just reached an agreement with the Environment Agency to take over the downloading of the PIT tag data from the Louds Mill PIT tag detector. This will add to our information regarding the number of adult returns and migration patterns.

Fish size and sea-age

We measured lengths of 114 upstream migrating fish in 2012 (see Figure 10) with the largest being a fish of 105cm. Length estimates includes data where only approximate length data are available. These are from periods where there was some turbidity in the water and only approximate (± 5cm) length data can be obtained. In past years these data were not used leading to a loss of data that still has some value in assigning sea-age to migrating fish. Data from fish below 50cm and fish that are obviously the same fish vacillating over the weir have been excluded from the data set. With so few data available, proportions of grilse have not been assessed this year.

Hourly database

Appendix I shows data from the hourly database for each month. As well as total upstream salmon numbers in an hour, hourly averages (4 x 15 minute readings) of water discharge ((East Stoke Millstream (ESMS) discharge is shown separately as dark blue on top of light blue main river (East Stoke flume) discharge – upper boundary of data therefore is total discharge) from Environment Agency data), air temperature and water temperature is shown.

The Archimedes screw turbine being installed at Bindon Abbey.

4. Other studies

Bindon Abbey

In July 2011 we installed flat-bed PIT tag readers on the various hatches and fish passageways at Bindon Abbey. These are now recording important information about the adult fish reactions to the new Archimedes screw hydro-electric turbine that has just been installed. It was also hoped that it would improve our detection and information about the numbers and identity of tagged fish returning from the sea. This year has proved that and with the high flows taking the East Stoke detectors out of action, the system at Bindon has provided a vital backup. A total of 36 tags were detected at the site; with 10 being descending kelts and 25 ascending salmon. Of the ascending salmon tags, eight were also registered at East Stoke, thus giving us useful information regarding migration rates.

The present system at Bindon is designed to detect adult fish. We are now going to install 'letter-box' design detectors on the various migration pathways to look at the medium and long-term effects of the Archimedes Screw turbine on downstream migrating juvenile fish. These new detectors will just be installed during the spring smolt run and, if conditions allow, the autumn run. Although modern Archimedes turbine designs are meant to be 'fish friendly', no medium or long-term data are available to verify this. By detecting fish migrating downstream through the turbine we can then see if there is a difference in survival to East Stoke (2.8 kilometres downstream) than those that use different migration routes. By detecting the subsequent return of adults we should be able, in time, to assess long-term effects of passing through the turbine.

Rotary Screw Trap experiment

We are continuing our joint study with Cefas on the effect of Rotary Screw Traps (RSTs) on subsequent smolt survival. RSTs are widely used to trap and count migrating salmon smolts on other rivers. However, there have been concerns

that the process may be detrimental to the fish. This project involves us using the information that we get from monitoring the PIT tagged fish to assess whether fish that have been trapped in the RST have higher marine mortalities.

We are investigating whether fish that have been caught in the Rotary Screw Trap have higher marine mortalities.

Poole Harbour netting

Under an agreement with the River Frome salmon net licence holder, the Environment Agency and the Frome, Piddle & West Dorset Fisheries Association we are monitoring the salmon and sea-trout net catch from Poole Harbour. All salmon and sea-trout caught are tagged using a visible Floy tag and/or a PIT tag implanted into the body cavity of the fish. The fish are then released and we see if they are caught by the rods or pass the East Stoke detecting equipment.

Our staff accompanied the netsman on all of the 20 netting occasions but only six sea trout and one salmon were caught. The salmon showed mild signs of 'Red vent' syndrome; symptomatic of a nematode worm infection. All fish were PIT tagged and the sea trout were floy tagged. Two of the sea trout were subsequently caught by an angler in the lower Frome (identified from the floy tags) and one was detected (on the PIT tag detector) at East Stoke on 22 October. On the last day of netting a 4.5kg carp was also caught.

TABLE 1

Salmon and sea trout caught in Poole Harbour netting, 2012

Date	Site	Species	Length (mm)	Weight (g)	PIT tag no	Comments	Age
1 June	Poole Harbour	Sea trout	620	3,500	DC00356CD4	Floy tag	2.3SM+
4 June	Poole Harbour	Sea trout	600	2,400	DC00354754	Floy tag	2.2SM+
18 June	Poole Harbour	Sea trout	490	2,270	DC0035604B	Floy tag	2.1+
18 June	Poole Harbour	Sea trout	580	3,515	DC0035681A	Floy tag	2.2SM+
19 June	Poole Harbour	Sea trout	570	3,400	DC003569AF	Floy tag	2.2SM+
27 June	Poole Harbour	Sea trout	580	2,800	DC00356FFC	Floy tag	2.1.2SM+
30 June	Poole Harbour	Salmon	570	2,350	DC00356D73	Red vent	1.1+
30 June	Poole Harbour	Mirror carp	-	4,500	-	-	-

Scale samples were taken from all fish and these data are giving us valuable information at a time where catch and release angling is limiting the data we get on fish ages etc. Full details of the net caught fish are shown in Table 1.

Sea trout caught and released from the Poole Harbour net. Note the Floy tag by the dorsal fin.

River flow

Figure 11 shows mean monthly discharge data (in cubic metres per second (cumecs)) for 2012 together with average (1966-2010) 5 percentile (%ile), 25%ile (Q1), 75%ile (Q3) and 95%ile discharge data. Values represent the percent time that discharge has historically been below the stated value (ie. for the 5%ile, values have only dropped below this level 5% of the time since 1966). These data are collated and calculated from Environment Agency records.

The river discharge started the year at very low levels (at or below the 5%ile). The heavy rain in late April brought discharge levels above the 75%ile where they stayed for the next two months. In July, very heavy and prolonged rain had a dramatic effect on the river and levels rose above the 95%ile and in fact were over twice the previous maximum July discharge recorded for the river. Discharge levels stayed above the 95%ile for the rest of the year and in November and December it again exceeded the previous maxima for these months.

Figure 12 shows that overall the mean annual discharge data for the Frome was the highest recorded; but was only just higher than 1966, 1994 and 2000. However, in those years high discharge was confined to the winter months.

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	MONTH												
Month	*Feb-12*	*Mar-12*	*Apr-12*	*May-12*	*Jun-12*	*Jul-12*	*Aug-12*	*Sep-12*	*Oct-12*	*Nov-12*	*Dec-12*	*Jan-13*	Total
Gross U/S	121	121	43	24	50	32	66	0	114	77	4	0	652
Gross D/S	175	168	44	8	9	7	7	0	28	17	10	3	476
U/S Kelts	112	109	37										258
Nett U/S	3	12	6	16	41	25	59	0	86	60	-6	0	302

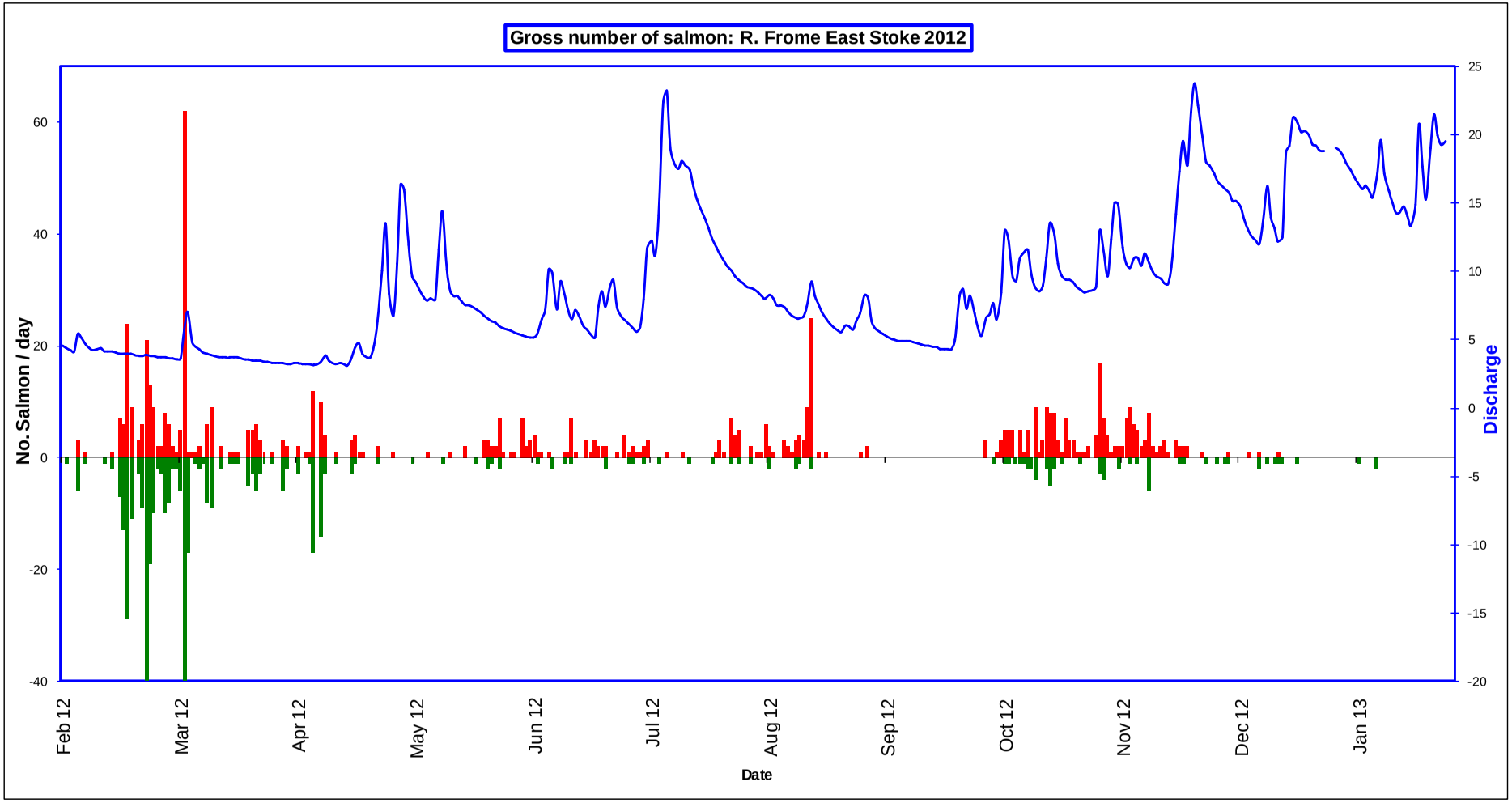


Figure 7 East Stoke Salmon Counter Data 2012

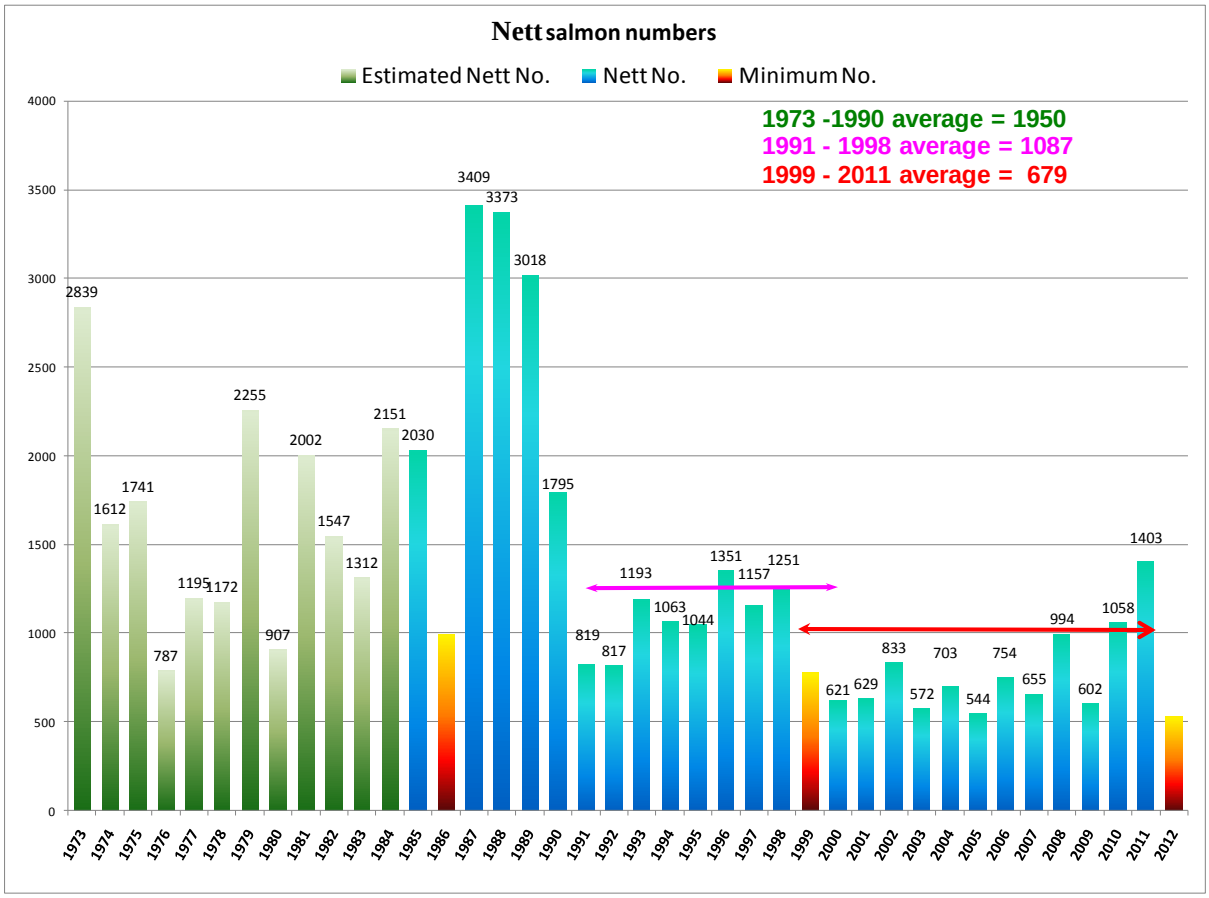


Figure 8 Annual numbers of salmon ascending the East Stoke weir

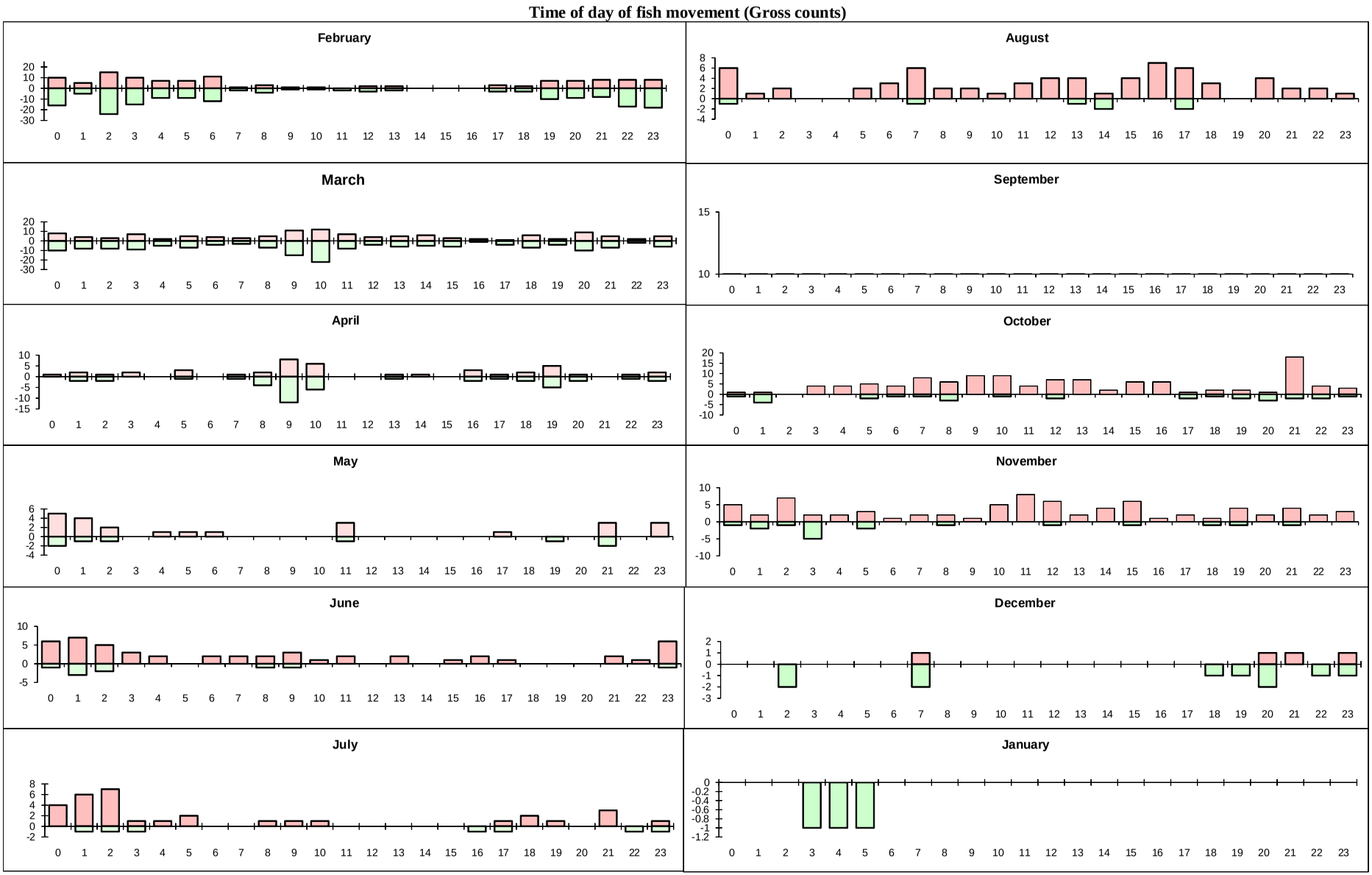


Figure 9 Time of day of movement (Gross upstream and downstream count data)

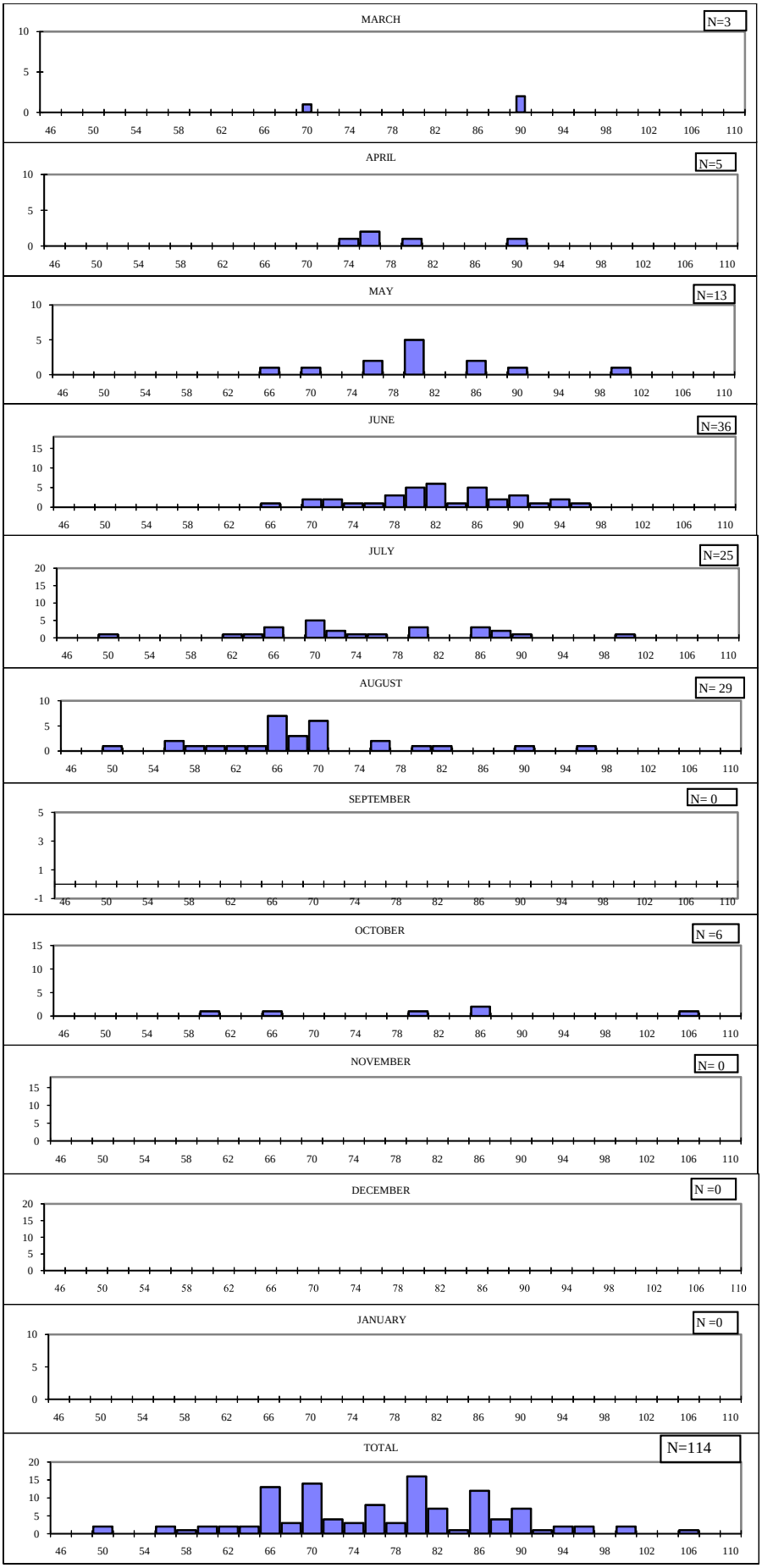


Figure 10 Length (cm) of upstream migrating fish each month

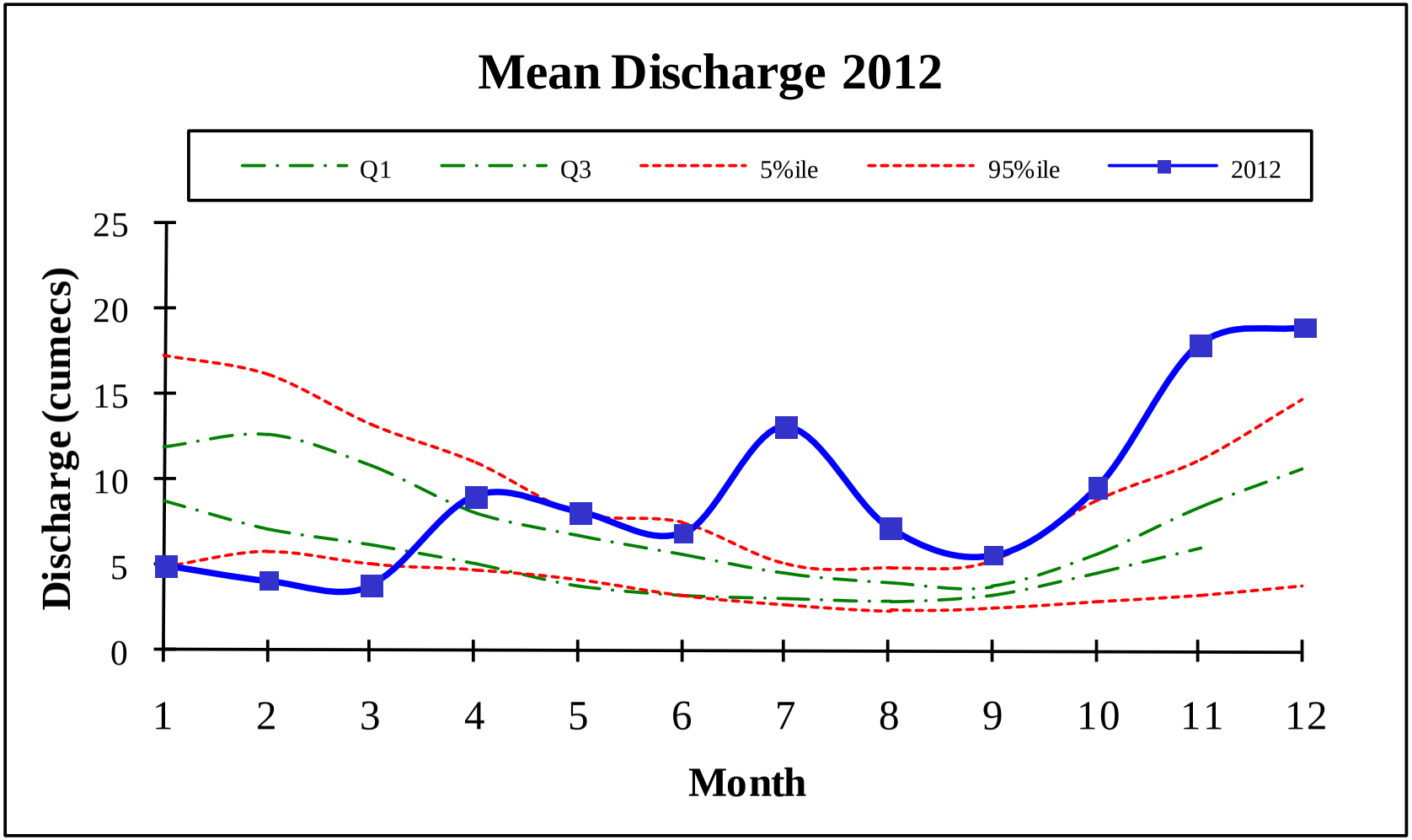


Figure 11 **Monthly mean discharge and long-term percentile data (Jan-Dec data)**

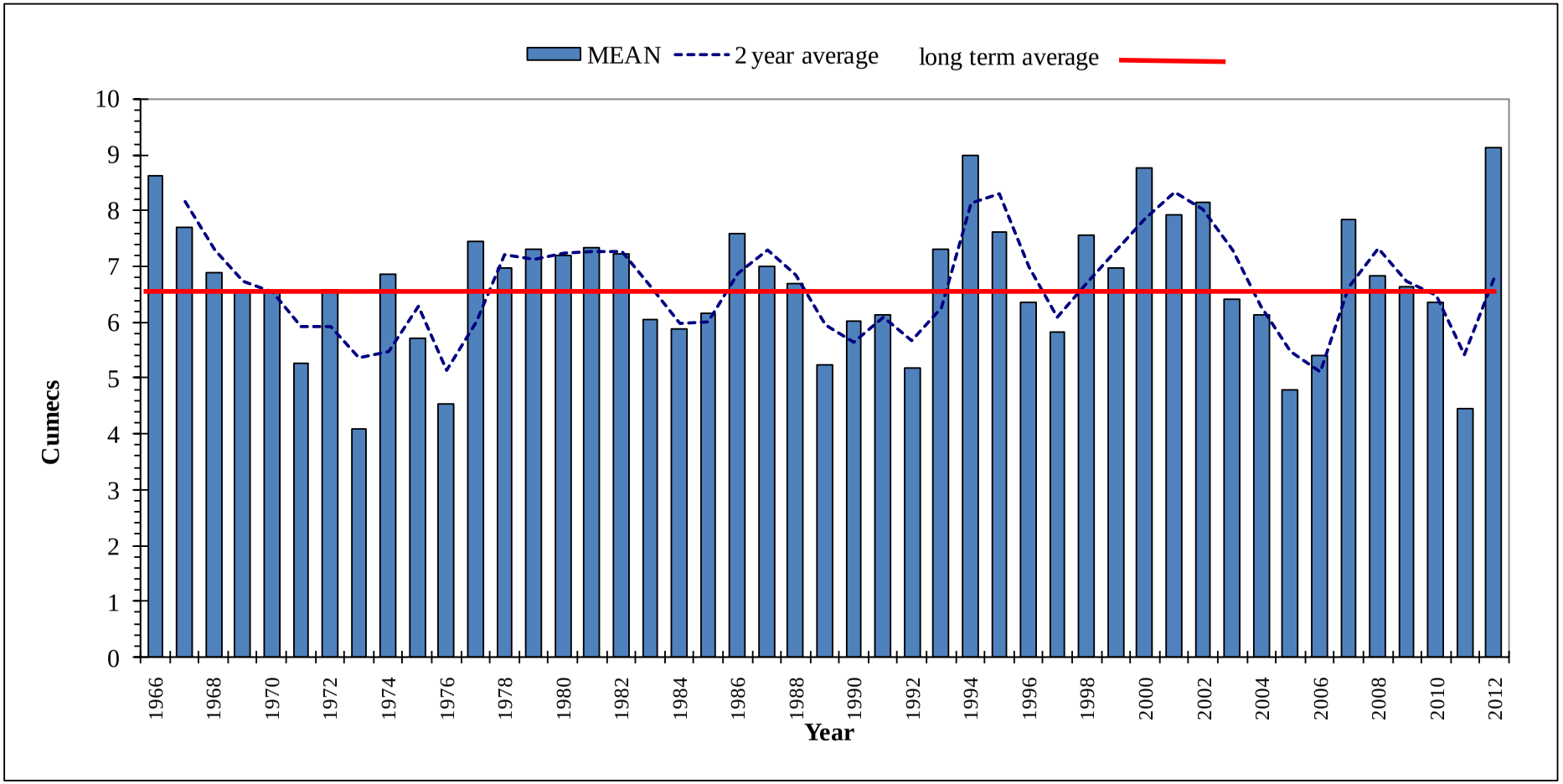
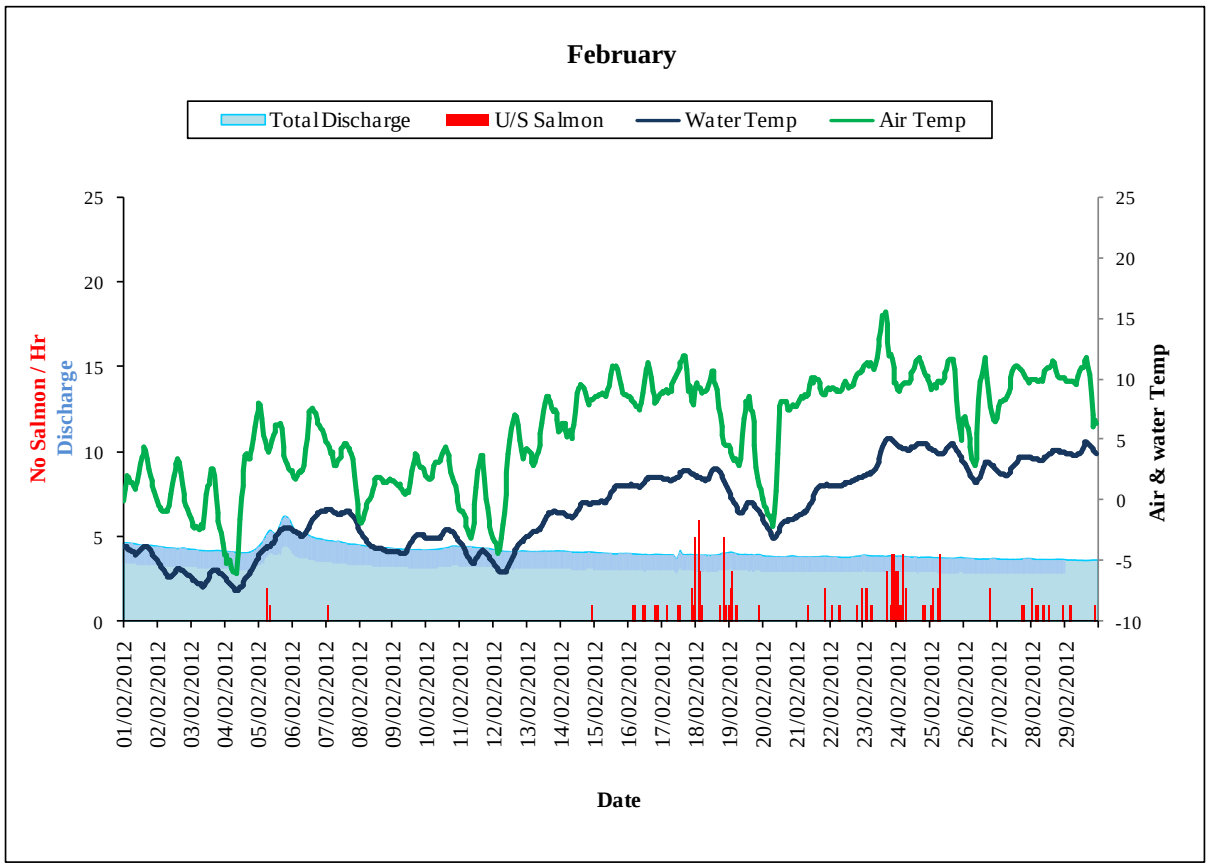
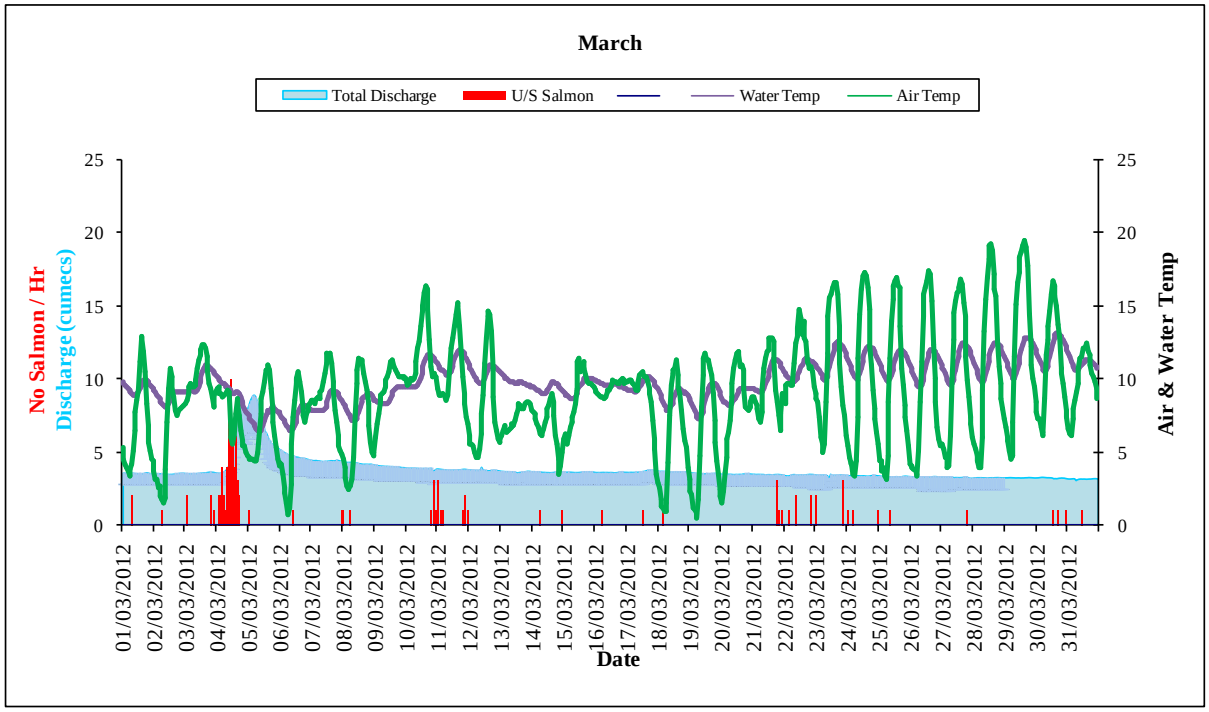
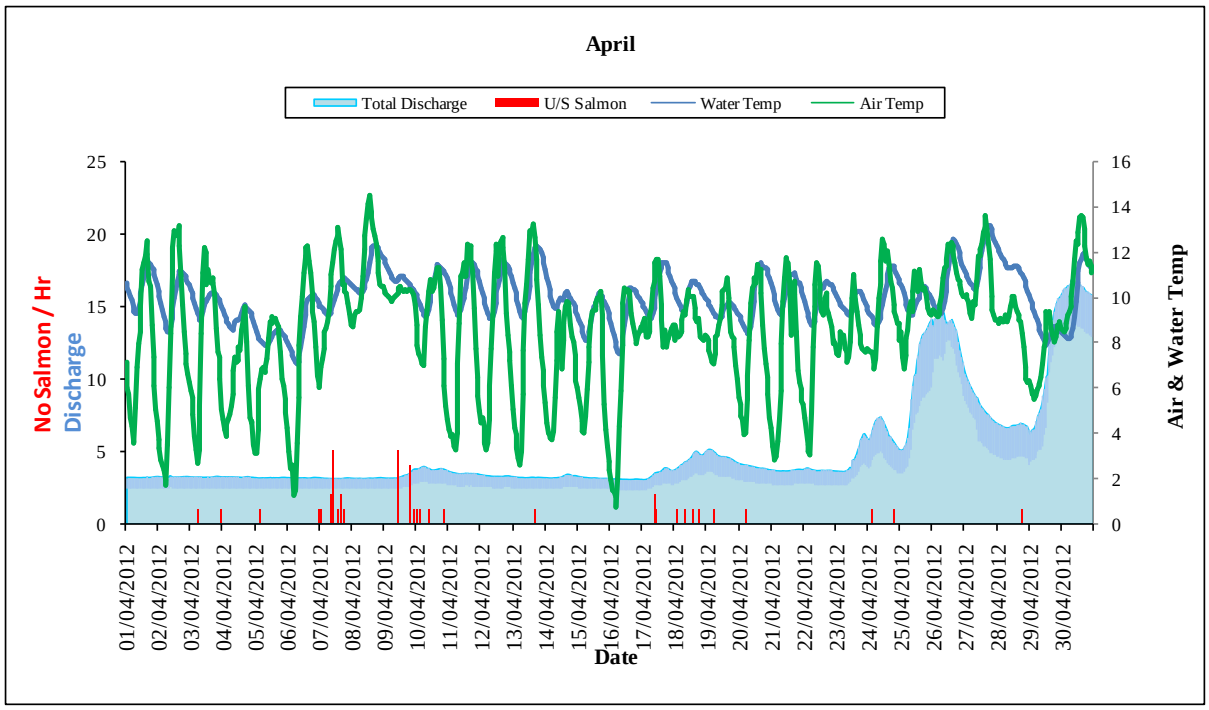


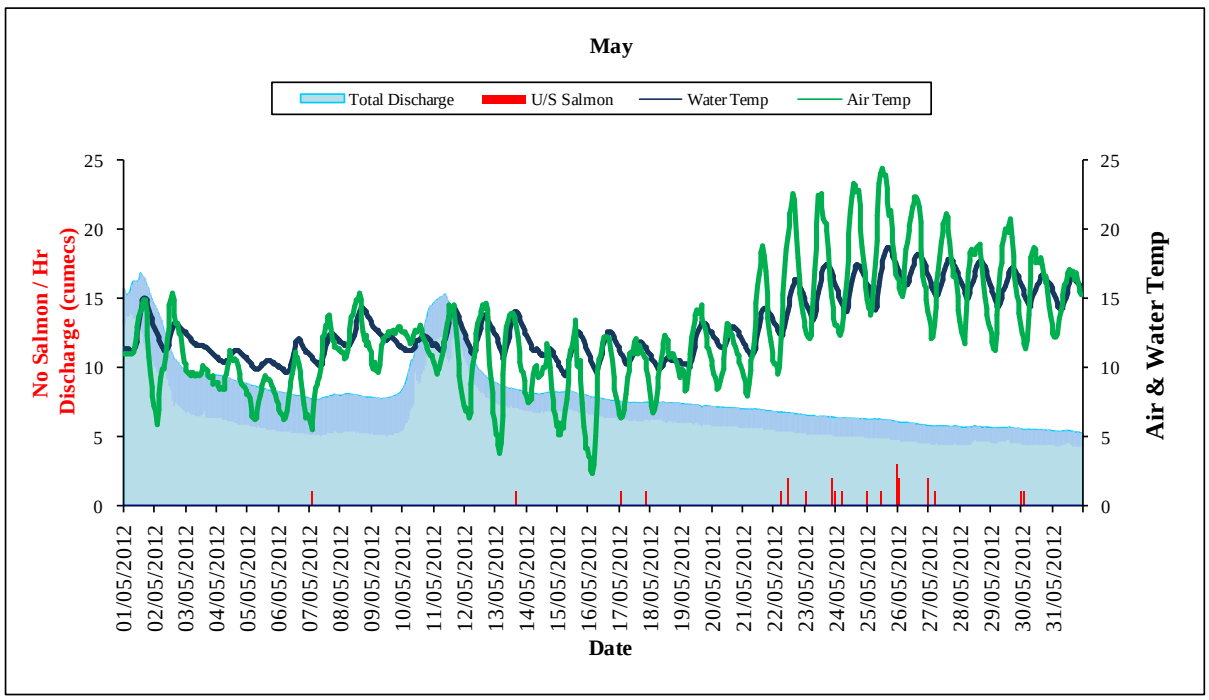
Figure 12 River Frome long-term annual discharge



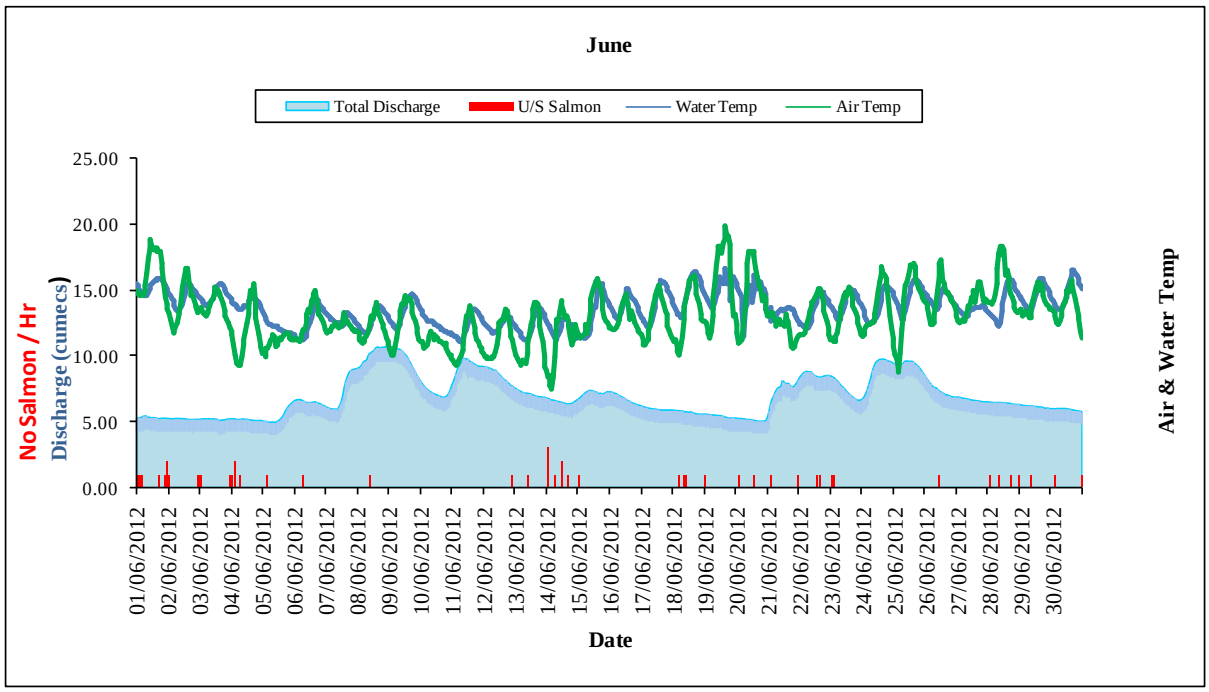


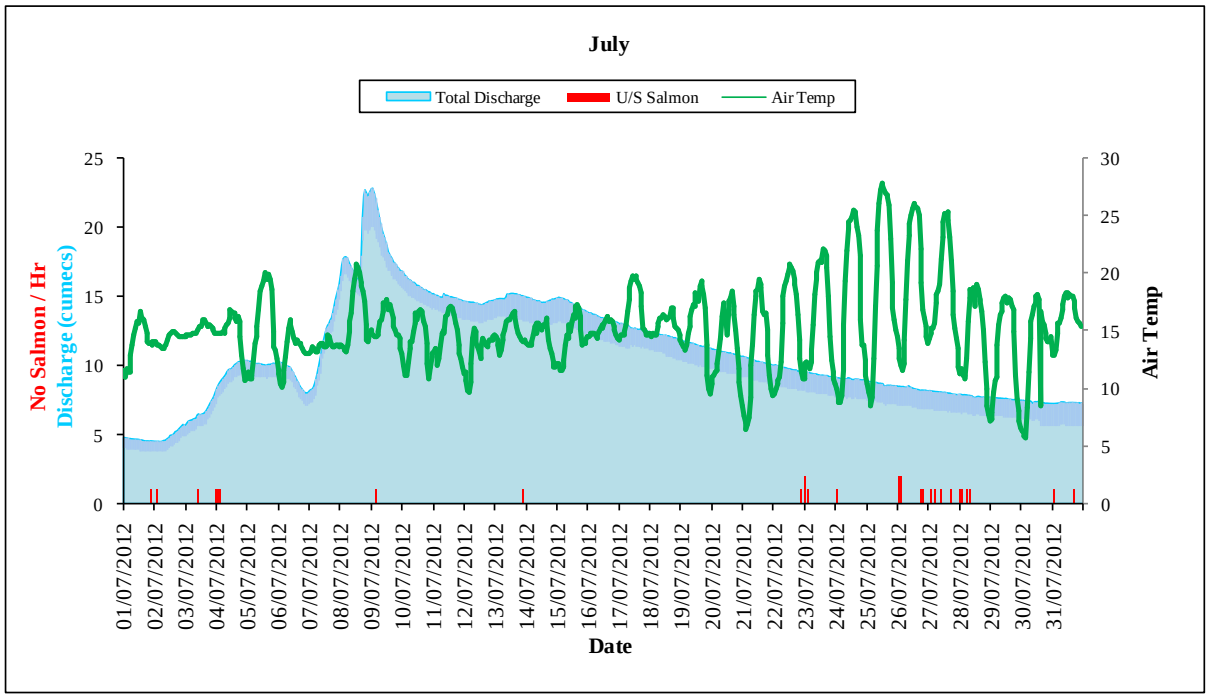
Appendix I Hourly data



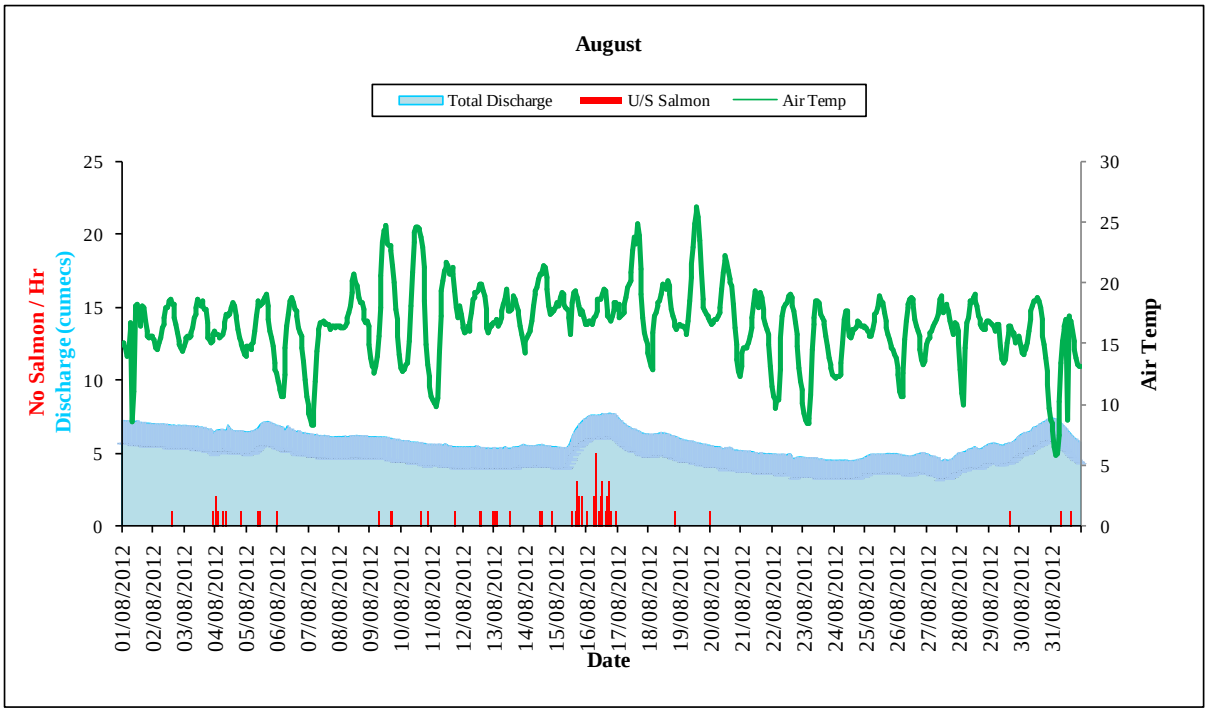


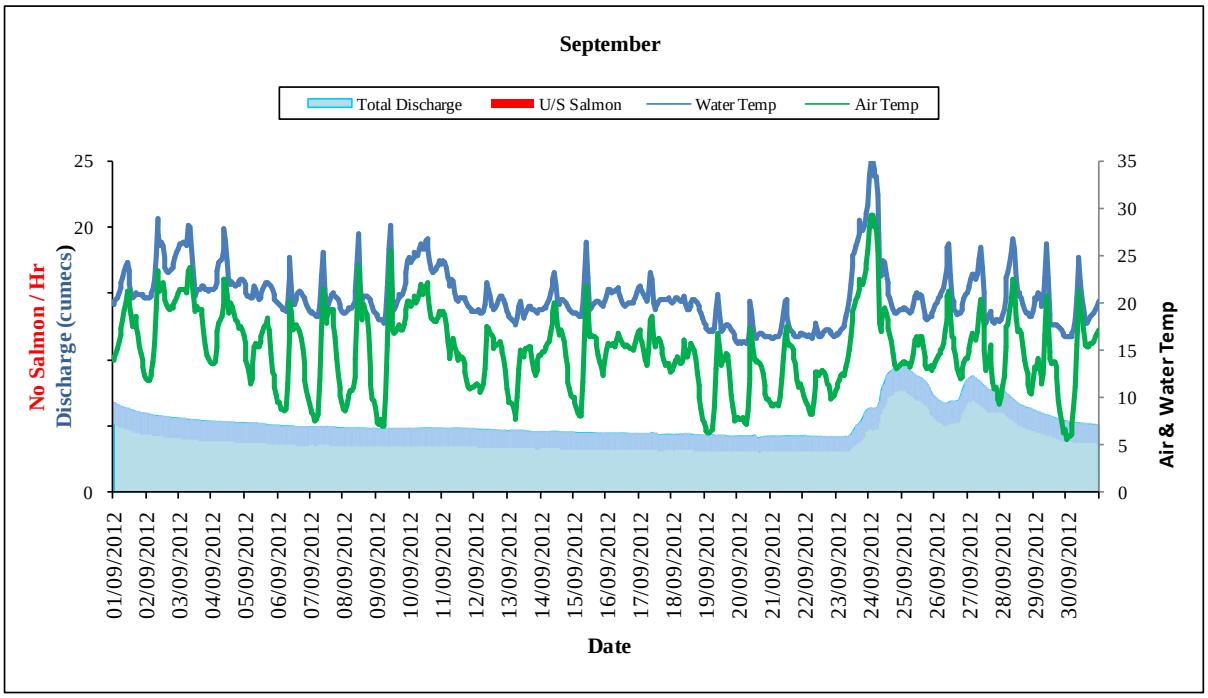
Appendix I Hourly data



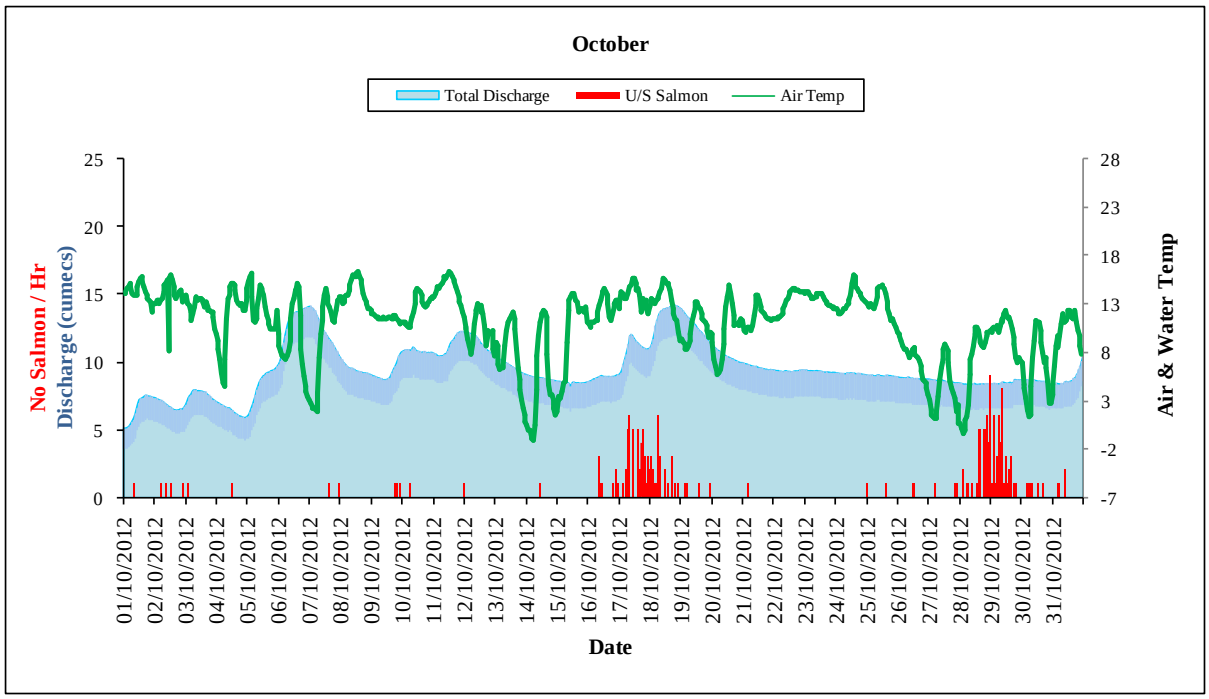


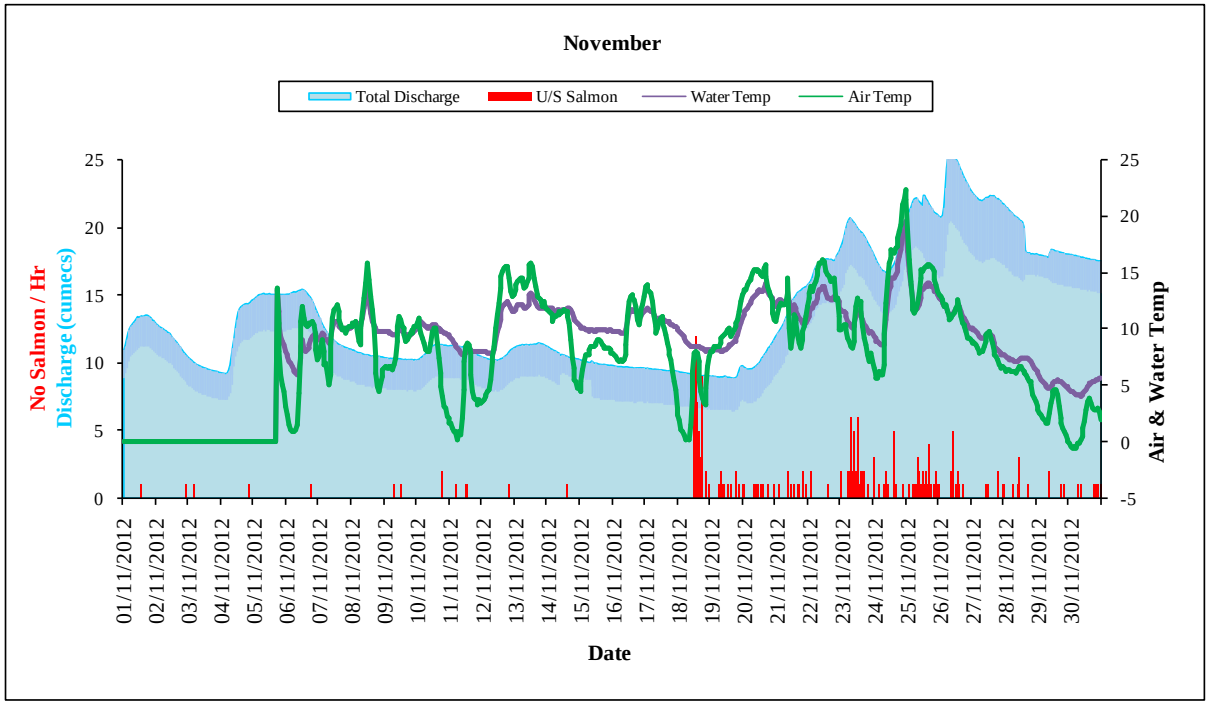
Appendix I Hourly data





Appendix I Hourly data





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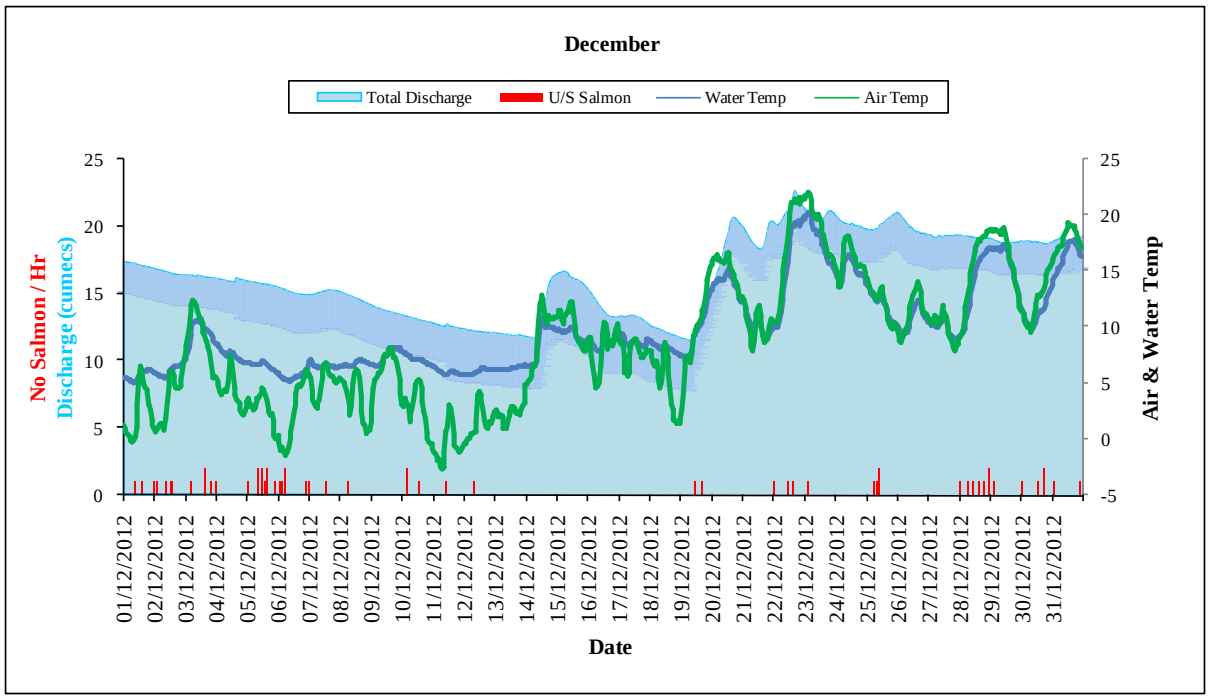

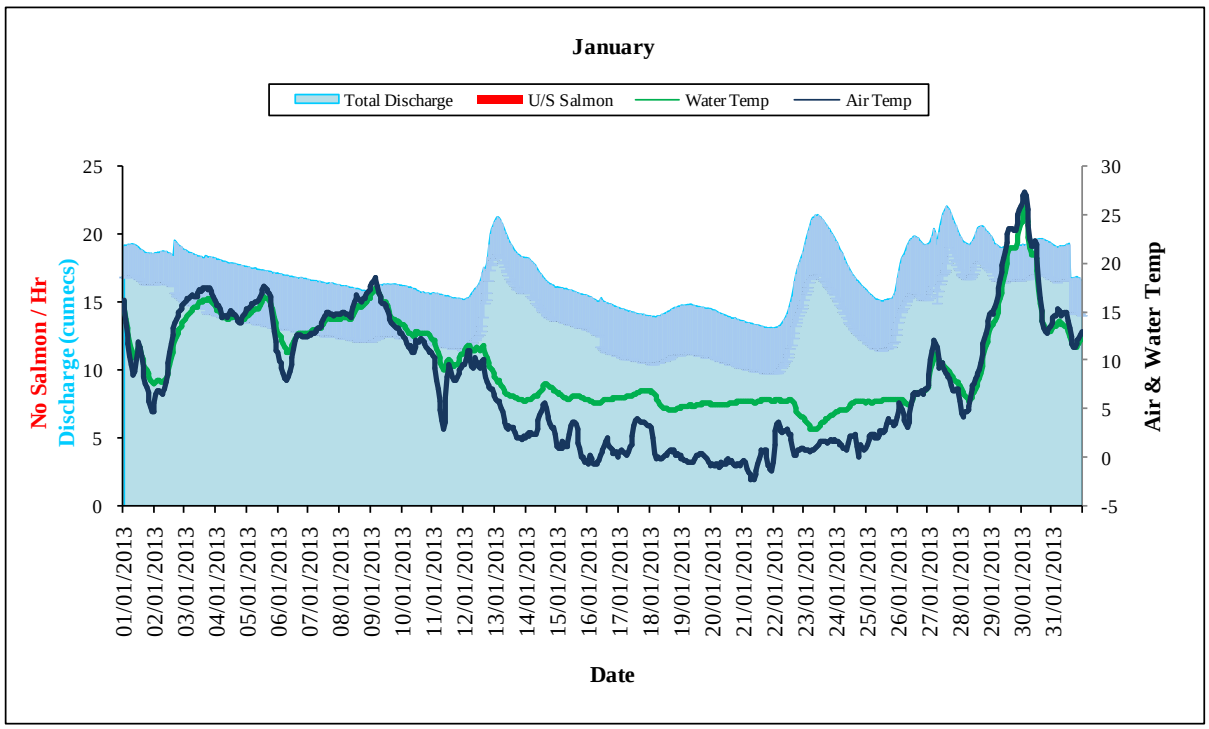

Appendix I Hourly data

The Game & Wildlife Conservation Trust

For over 75 years our scientists have been researching why species like the grey partridge, water vole, corn bunting and black grouse have declined. We are continually developing practical measures to reverse these declines.

Our aim is simple – a thriving countryside rich in game and other wildlife.

We are an independent charity reliant on voluntary donations and the support of people who care about the survival of our natural heritage.

Our science is funded by our members. Be the first to know about our new research and call 01425 651010 to join us today.

Game & Wildlife
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Editing, design and layout: Louise Shervington
Printed on FSC accredited, chlorine-free paper from sustainable forests