Tay District Salmon Fisheries Board



Annual Report
2018 / 19

ANNUAL REPORT 2018 / 19

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TAY DISTRICT SALMON FISHERIES BOARD

Chairman

Iain McLaren (Mandatory for Kinnaird)

Members Elected by Upper Proprietors

S. Furniss (Mandatory for Clayfield Investments)
C. Mercer Nairne
J. Perrett
A. Riddell

Members Elected by Lower Proprietors

D. Godfrey (Mandatory for Tay Salmon Fishing Company Ltd)
Councillor A. Parrott (Mandatory for Perth and Kinross Council)

Co-opted Members

Representatives of Salmon Anglers

D. Brown
C. O'Dea (Tay Ghillies Association)
S. Mannion
T. Monaghan
A. Stewart
A. Wallace

Observers

N. MacIntyre (Scottish Natural Heritage)
B. Roxburgh (Scottish Environment Protection Agency)

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CHAIRMAN'S REPORT 2019

For many beats 2019 was yet another challenging season, but it is heartening that some beats did better, especially in areas that benefit from higher water. It was an encouragement to see more grilse in some areas but the main autumn run and spring salmon run continue to be a cause of concern. Reiterating my introduction from last year, it is clear from the work reported here from the Tummel smolt tagging that survival after smolting is a major problem. Possibly the major problem. I look forward to seeing the Board work with others to find out how much of this is due to predation as our smolts leave the river or problems further out at sea.

Again, I reiterate what I said last year. If fewer adult fish make it back, our priority must be to ensure as many of the survivors as possible are allowed to spawn. Almost all anglers do their part and release what they catch. That is clear and I thank them. But claims persist that some anglers do not and this understandably puts off those who do. That is why I proposed we should apply to the Scottish Government to make catch and release mandatory for a few years. Most of the Board was very supportive and a majority of proprietors who responded felt the same. However, as many still felt mandatory was a step too far, we are asking instead that all fish should be released on a voluntary basis. This is the first time ever the Board has recommended this before the start of a new season and is not taken lightly. I would hope that proprietors will do all they can to ensure anglers comply.

Despite all that, some good progress was made in 2019. I was heartened to see results from the River Garry. Even only after two years from water being restored it produced over 7,000 smolts, all as a result of our kelt reconditioning programme. We can expect more in the coming years. I have seen preliminary results from UHI, which will prove natural spawning was also significant in 2017 and will add to the 2020 smolt run. But without the hatchery, the kelt reconditioning project, so much progress could not have been made.

A major challenge in 2019 was Marine Scotland's new stocking policy, which clamped down on broodstock collection where it was not strictly for restoration / mitigation stocking. This has come as more eggs than ever are being produced by kelt reconditioning. It didn't impact on Garry stocking, but has limited us elsewhere. We have had new parr rearing tanks made which might not now be required. Following changes in Marine Scotland staff, I am awaiting discussions to clarify what we can and cannot do in future.

As something of a *quid pro quo* Marine Scotland undertook to champion some other issues that have been in the drawer for a long time but not in the Board's gift to enact. I hope that Marine Scotland will push these. We need as much help as we can.

This reminds me that almost everything we need to do to help salmon relies on the cooperation of others. Not only the Scottish Government and its agencies but fishing proprietors and landowners. All anglers also need to work together. I found it very useful when the Board met the Tay Ghillies Association in the summer. I am determined to ensure there is good communication and cooperation

between us all. I am also encouraged to see progress being made by the Tay Rivers Trust. We will hear more of that in future.

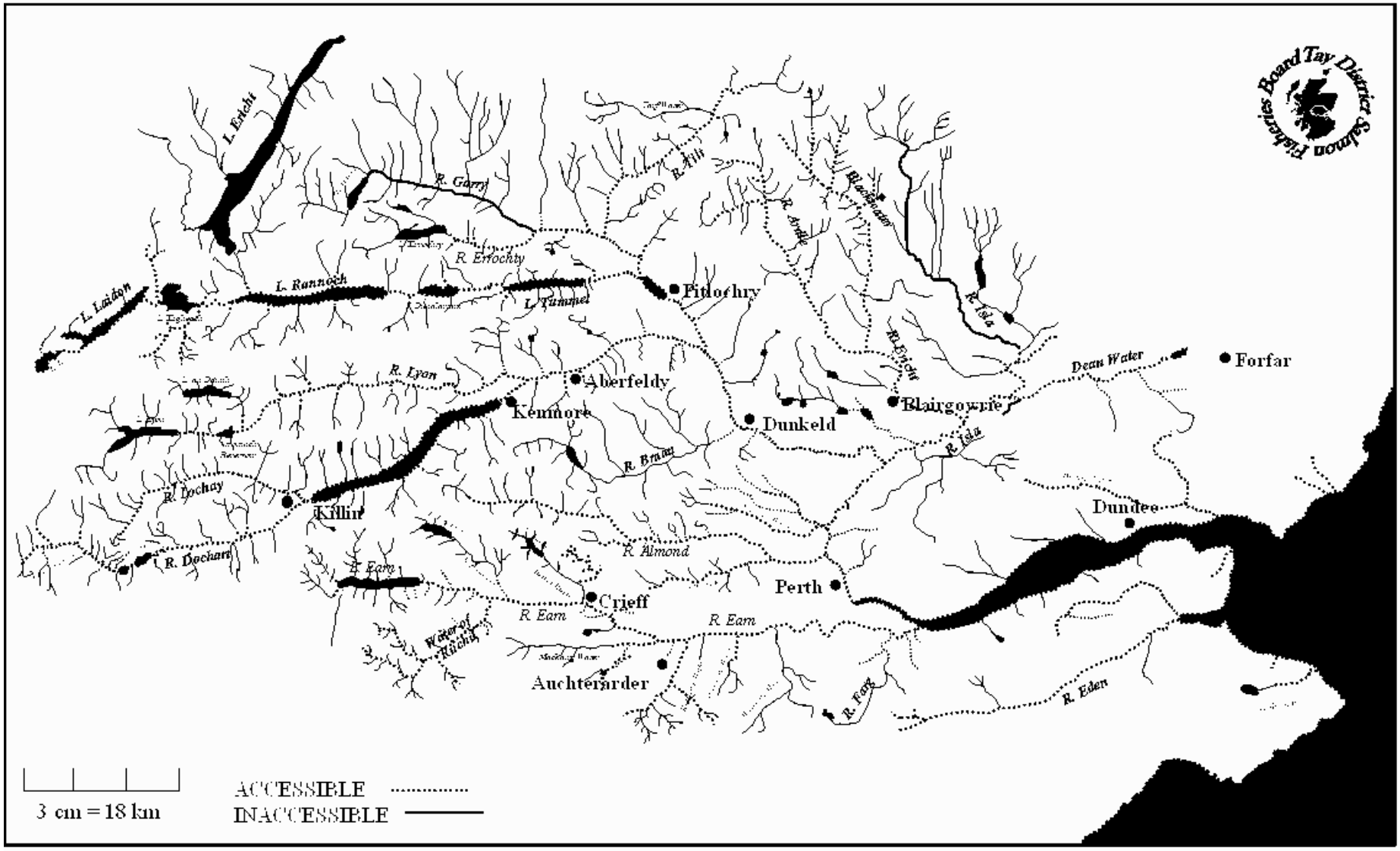
Finally, I wish to thank all the other Board members and Board staff for all their help during the course of the year. Board members put in a lot of effort, in their own time, to help. The Board is also fortunate to have dedicated staff which provides a diverse team who tackle the problems and issues we face on a day to day basis. I am very grateful to them all. And, of course, I must thank all anglers who stand by our great river and support it year after year.

Tight lines for 2020!

Yours sincerely

Iain McLaren

Salmon Distribution within the Tay District



2019 REPORT

Season 2019

Conditions looked promising when the 2019 season opened on 15 January. However, only three springers were caught on the day. Thereafter, January was mostly dry, as it had been for much of the winter, with a quick rise near the end. However, only another couple of fish were reported during this two week period.

The weather turned frosty in early February and the fishing continued disappointing. However, after a large spate, the level generally held from four to five feet until the last week of the month. Catches picked up, but remained disappointing on some of the "traditional" early spring beats lower down the Tay. Many fish seemed to make Islamouth their first stop, which usually does not happen until April. Catches were higher than usual on the Tummel for the time of year and some fish trickled through to Loch Tay. It is anticipated the overall catch will be around 70 fish, perhaps slightly ahead of last year.

Following a rise at the start of March, the Tay held a medium height until another large spate in mid month when it also got cooler. The rest of March was relatively dry and the river gradually fell away. The continued good running conditions meant that for some lower and middle beats, it was again something of a mixed bag. The Tummel continued to do better than normal and, with more water in the first week of March, there was a good run of fresh fish into Loch Tay. The overall March total seems fairly similar to last year, perhaps near 200, but spread out. Like the previous two years, many of the fish were larger 3SW fish, despite there having been a poorer 2SW run in 2018.

April started cold and unsettled but, thereafter, was mostly dry. Unseasonably mild weather returned mid-month. Catches looked more promising at the start, but rising temperatures and falling levels made it tougher later on. The overall catch for April may be somewhere in the region of 300 to 350, which is similar to 2018 but considerably down on the years before that. Catches would have been higher with better conditions.

May continued as April left off and was mostly dry. The first substantial rise was a four foot rise on the 27th. Consequently, the same comments apply as in April. It is anticipated the overall catch for May might hardly exceed 300 fish, which might even be behind last year.

The start of June was much wetter and cooler than most of May had been. This gave fish a chance to spread out, even up into tributaries like the Ericht. But the weather then become drier and levels gradually fell. The final tally for June may end up a little ahead of the drought month of June 2018, but was still less than hoped for. As a consequence of these lower catches, considerable concern developed over the strength of the 2SW salmon run.

July started dry, but there was a rise in the second week and the latter third of the month was unsettled, culminating in a very dirty spate on the 25th. But, despite some days being lost due to conditions, July was considerably better than July 2018. With grilse now appearing, some beats did quite well. Islamouth, for example, had its best July for over five years.

While August started off hot, thunderstorms generated several quick dirty rises in the first week or so. A change to bouts of more general rain led to a spate of about 10 feet mid month. Only in the last week or so did levels steady for any time, before another big rise on the 31st. With water, there was a marked improvement in catches for some beats. Better numbers of fresh grilse were caught at the very bottom of the river, including on the Stormont Angling Club water. Almondmouth had its best August for over five years, despite fish also being caught in the River Almond. As with the Almond, fish took advantage of the opportunity to run the Isla and Ericht. Some anglers reported the best fishing on the Blackwater in August and September for some time.

Early September saw another large spate, over 9 feet. Levels settled slowly thereafter until another big spate near the end of the month. Despite water levels, some of the better catches continued to be made low down the river. Some fresh run salmon continued to be caught low down the river right through September, not in numbers, but more than in some recent years. However, while August may have been the best for several years, September catches are likely to be down on 2018.

The last 15 days of the Tay season in October started with settling water, followed by spates at the start and end of the second week. Fortunately, the water cleared enough for the Tay season to finish on a more positive note. Again the best of the fishing was in the lower river. The Fishponds beat, for example, continued a run of good fortune, ending up with nearly twice its recent average. The overall catch is likely to be similar to October 2018.

Therefore, to summarise the 2019 season, early season catch continued to be dominated by 3SW fish, a recent trend. The spring 2SW run was, like last year, down on a few years ago. The summer run of grilse took advantage of plenty of water and was perceived to be stronger in some areas, although many were small. In the autumn, once again, fresh run grilse were lacking as has been the case since 2016, although some continued right to the end of the season, not a complete absence.

Catch and release

In 2019, the Board continued to recommend the policy of 100% catch-and-release of salmon up to the end of May. As in 2018, it initially recommended no more than the very occasional clean fish weighing, where possible, under 10 pounds over the entire June to October period. However, as the spring of 2019 progressed, it was clear, as in 2018, there was a relatively poor run of 2SW fish. It was particularly concerning that the Pitlochry Dam fish count was well behind anything seen before. Therefore, in May, the Board announced that it was now recommending that all salmon and grilse should be returned for the rest of the season.

Being aware the Board's policy is only a recommendation and given the unprecedented low numbers of returning salmon, a majority of Board members wished to see catch and release made mandatory throughout the district for a period of years. A particular concern was that, while most anglers released everything they caught, stories persisted of fish being killed on some beats.

In late June, the Board wrote to all proprietors for their views on submitting a request to Scottish Ministers for 100% catch and release to come into force in 2020 for a limited number of years. In the event, a small majority of respondents were in favour, but this was not considered enough and the proposal was not taken further.

However, at the October 2019 Board meeting, it was decided the Board would recommend 100% catch and release for the full season 2020.

As of November 2019, the latest catch returns available to assess compliance with this policy are only for the 2018 season. In 2018, spring return rates continued very high, though marginally less than 2017 (Figure 1). However, release rates from June on reached record levels. Perhaps the drought of 2018 and low catches particularly encouraged anglers to release fish.

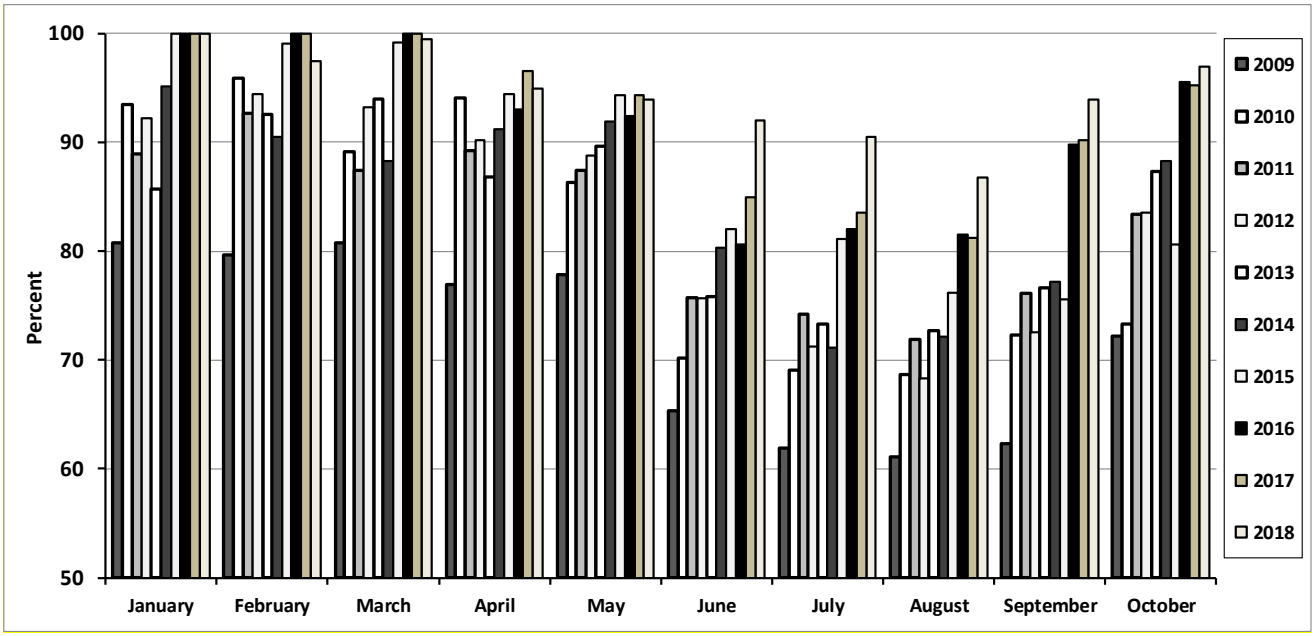


Figure 1. *Percentage of the Tay district salmon and grilse catch released by month in each year from 2009 to 2018. The data used in this graph are Crown copyright, used with the permission of Marine Scotland Science. Marine Scotland is not responsible for interpretation of these data by third parties.*

In 2018, for the sixth year in succession, more spring salmon were caught in the Tay district than in any other Scottish district (Figure 2). While very few spring salmon were killed anywhere, more were still killed in the Tay district than elsewhere.

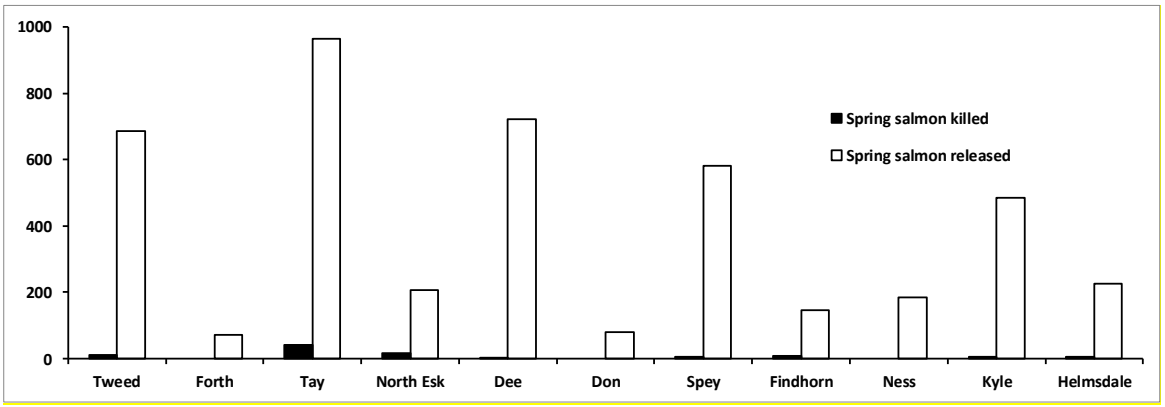


Figure 2. *Numbers of salmon killed and released by anglers to 31 May 2018 on Scotland's major spring salmon rivers. Data from Marine Scotland Science.*

Catch and release rates in different parts of the district in 2018

From Figure 3 it can be seen that, in 2018, there was a very low percentage of retained fish in most parts of the catchment, all season. However, there were still slightly higher rates of retention in the spring in some tributaries, notably the Dochart.

However, although the percentage killed may have been high, the Dochart did not see the highest numbers of spring fish killed, as the overall catch was low (Figure 4). Over the season as a whole, the great majority of fish reported killed were from the lower Tay (Figure 5).

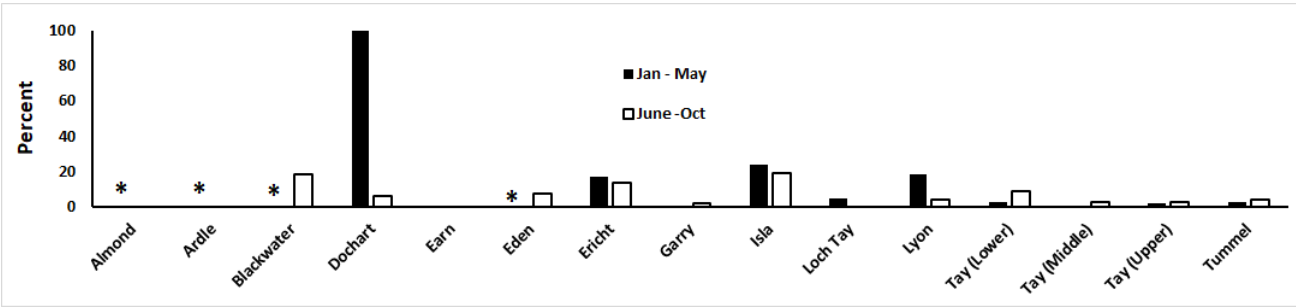


Figure 3. *Percentages of salmon released in different parts of the Tay district during the periods January – May 2018 and June – October 2018. Tributaries which did not produce any spring fish are marked with *.*

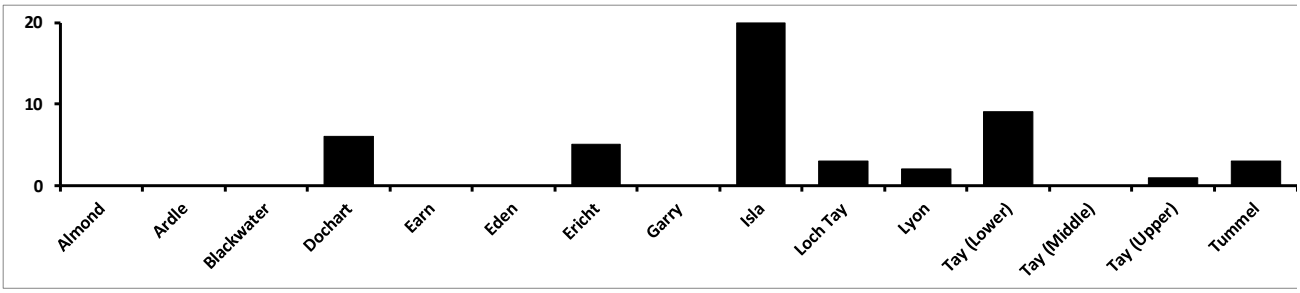


Figure 4. *Numbers of reported retained salmon from different parts of the Tay district, Jan – May 2018.*

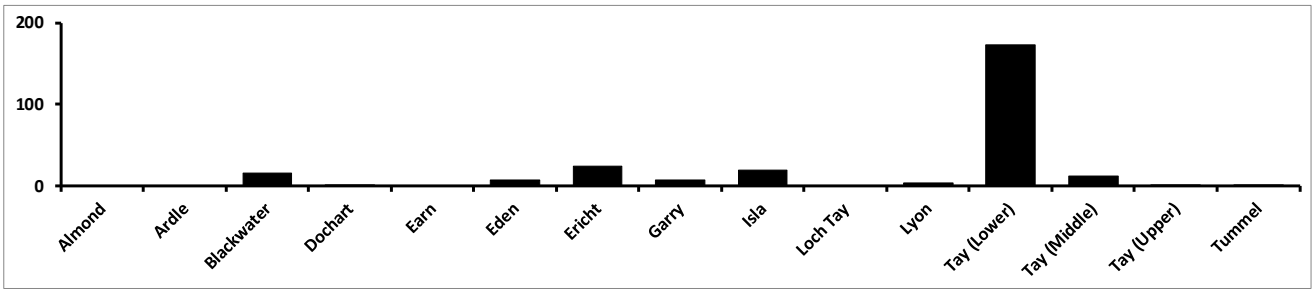


Figure 5. *Numbers of reported retained salmon from different parts of the Tay district, June – October 2018.*

Sea trout conservation

In 2009, the Board first recommended that, following a long decline in their numbers, all sea trout should be released without exception. This policy has been maintained thereafter. Since the introduction of the policy, the great majority of the catch has continued to be released (Figure 6). In 2018, sea trout catches were down, no doubt affected by the summer drought. Anglers responded by achieving the highest release rate yet.

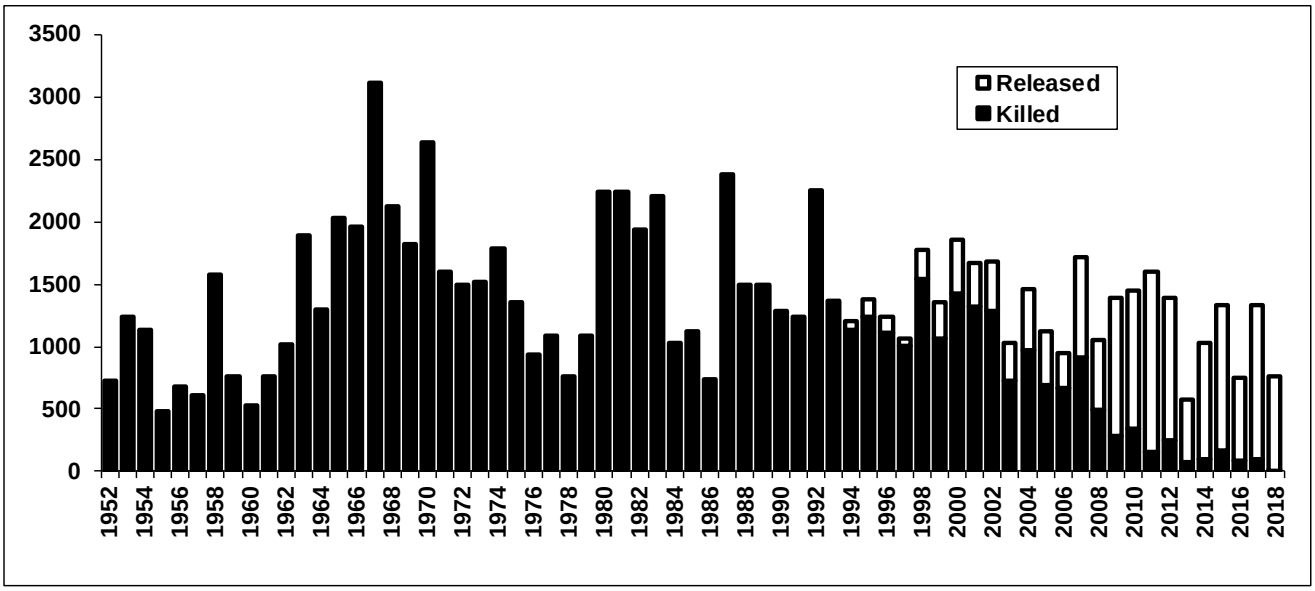


Figure 6. *Tay District rod & line catch of sea trout, 1952 – 2018. (Data obtained from Marine Scotland's Statistical Bulletins of Scottish Salmon and Sea Trout Catches)*

Mandatory Spring Catch and Release Regulations

2019 was the fifth year of regulations introduced by Scottish Ministers requiring the mandatory release of all salmon caught up to the end of March. As shown in Figure 1, the measures continue to have a significant impact on the overall spring release rate since 2015. The measures were introduced for a period of five years. It is presumed they will be renewed in 2020.

Enforcement

During the 2019 season various enforcement issues arose. These included boundary issues on Loch Tay and the removal of illegal fishing items, particularly from the River Ericht. These including sniggers, a gill net, sacks, a balaclava and ropes. Sniggers were still being found at Blairgowrie up to end of October.

Fisheries officers attended call outs from all round the district. All required following up and included anglers fishing without written permission and members of the public approaching fisheries looking to purchase wild salmon. However, no reports were submitted to the Procurator Fiscal.

The Fisheries Management Scotland Enforcement Committee organised a training day at the Board's hatchery for Procurator Fiscals and Police wildlife liaison officers. The meeting was well attended, with representatives of several DSFBs present also.

On Monday 21st October, fisheries officer Ron Whytock, Brian Davidson from FMS and the wildlife crime police sergeant held a training day for local police officers at the hatchery. Officers from Blairgowrie, Montrose, Pitlochry and Perthshire attended. The day allowed fisheries officers to talk to officers regarding poaching methods and laws. More events are planned for the future and joint working practices encouraged.

However, while undertaking these duties, staff received assistance from time to time from Police Scotland and once again, the Board wishes to express its thanks to Police Scotland, particularly local offices, who are always extremely helpful.

Health and Safety at Work

Health and safety at work is a major consideration for the Board. The Board's staff are frequently required to work in situations where potential hazards are present. Therefore the Board is insistent that health and safety provision is of the highest standard. As described in the last *Annual Report*, the Board concluded a major health and safety review in 2017, therefore no major changes were required in 2019. However, in 2019, where necessary, staff received relevant health and safety training, which included a first aid course for one staff member.

At the time of writing (November 2019), no incidents have been reported to the HSE under RIDDOR.

TDSFB Annual Public Meeting 2019

The Board held its 2019 Annual Public Meeting on 20 March. The meeting was held in the Birnam Institute and attracted both proprietors and anglers. Presentations on the work of the Board were given by the Chairman, Clerk, Fisheries Director and Operations Manager with questions and answers following. The minutes of the meeting can be found at www.tdsfb.org/reports.html.

Fisheries Management Scotland

Fisheries Management Scotland is the representative body of Scotland's DSFBs and fisheries trusts. The Board's Fisheries Director, David Summers, holds one of the six positions for elected representatives of DSFBs on the FMS Board. Detailed information on the work of Fisheries Management Scotland can be found on its website www.fms.scot. The minutes of its regular meetings can be found at http://fms.scot/board/ and presentations from its annual conference can be found at http://fms.scot/events/annual-conference/.

Hatchery report 2018/19

As described in recent *Annual Reports*, the Board's stocking activities are now centered around the Kelt Reconditioning Project. This entails the keeping and feeding of captive salmon kelts following stripping. Such fish can live in captivity for several years on average, producing eggs each year with the great advantage of not impacting on the source population. The Board has run the kelt reconditioning project since 2011 when it took over the former Marine Scotland Science hatchery at Almondbank.

After taking on the Almondbank facility in 2011, the Board expanded its capacity. There has been a major effort since 2017 to fill it. The number of eggs from reconditioned fish counted in early 2019 was the largest yet (Table 1).

	2011/12	**2012/13**	**2013/14**	**2014/15**	**2015/16**	**2016/17**	**2017/18**	**2018/19**
Eggs from new broodstock			300,211	189,021	312,421	436,787	622,458	449,065
Eggs from reconditioned broodstock			354,722	421,379	316,204	222,810	425,936	668,899
Total	779,000	582,000	654,933	610,400	629,225	659,597	1,048,394	1,117,964

Table 1. *Numbers of eyed ova produced annually by the kelt reconditioning facility since 2011. Note, no split between "new" and "reconditioned" eggs is available for the first two years.*

Most of the produce of the hatchery in 2019 was stocked out as eyed ova and most of the remainder as unfed fry. A relatively small number of fry were kept on as fed parr and stocked out in October.

The numbers stocked out at various life stages are given in Table 2 according to tributary.

Tributary stocked	Eyed ova / unfed fry	Parr
River Tilt	82,602	
River Garry (restored section)	222,184	
River Garry (below Struan)	117,467	
Allt Glas Choire (above SSE intake)	86,620	
Allt Glas Choire (below SSE intake)	89,068	
Errochty Water	175,078	
Fillan tributaries	62,516	
Cononish	32,000	
Lochay	16,816	8,184
Ruchill Water (upper reaches)	142,415	9,960
Lyon tributaries	58,120	
River Lyon (Fortingall)		7,552
Totals	**1,084,886**	**25,696**

Table 2. *Numbers of eggs or juvenile salmon stocked in spring 2019 according to tributary.*

Marine Scotland Salmon Stocking Policy

In order for the Board to catch broodstock in the autumn, it is necessary to obtain a licence from Marine Scotland. An application is made each year. Previously, the criteria by which these applications were judged was not published.

In May 2019, Marine Scotland published a formal policy document on how they intended to consider applications thereafter. Of particular note, the policy had a presumption against "enhancement" stocking and would only look favourably at "mitigation" stocking (e.g. stocking that was agreed say above an impassable man made barrier that could not be removed) or "restoration" stocking, but only for four years in the first instance. There was also a presumption against stocking with fed-on fry or parr.

While there is considerable similarity between this policy and the Board's own stocking policy, there were areas of contention and several meetings were held with a representative of Marine Scotland to help clarify matters. In the end, when the application was made to collect broodstock in autumn 2019, licence was granted to take fish from tributaries in the Tummel system for the River Garry Restoration project, and from the Earn and Eden but not from the River Fillan for stocking the Cononish and Lochay. More stringent criteria were applied in the case of the Fillan and Tummel as they are within the River Tay Special Area of Conservation while the Earn and Eden are not.

An appeal was made to allow broodstock capture for stocking the River Lochay as the Board believes that to be mitigation stocking. However, this was turned down.

This change in policy by Marine Scotland has significant ramifications for the Board's hatchery programme and for where stocking can take place in future within the Tay district. For example, it would not be possible to stock the main stem of the Tay.

Proposed increase in parr rearing capacity

As reported in the last *Annual Report*, the decision was taken in late 2018 to install an additional ten parr rearing-tanks in the hatchery. That would have more than doubled the parr rearing capacity. The ten new tanks were duly ordered along with three more holding tanks for adult handling prior to stripping.

In order to make room for the new tanks, in the early weeks of 2019, Board staff dismantled the old "flume" which was no longer required and was in a state of deterioration anyway. This opened up a large area of additional floor space.

It was then planned to plumb in the tanks during the winter of 2019/20. However, because Marine Scotland's new stocking policy specifically targeted parr-rearing, the installation of these tanks has been put on hold until greater clarity is available.







Removal of the "flume" which ran along the length of the building and filled the far end, opened up a lot of space which could be occupied by new fish rearing tanks.

Marine Scotland Request for Alternative Projects

As Marine Scotland's stocking policy could reduce the Board's hatchery activity, it was put to the Board by Marine Scotland to suggest alternative projects that Marine Scotland could press for on the Board's behalf. Therefore, the Board:

- Presented Marine Scotland with details of abstraction issues on the River Lochay.
- Presented a report on how salmon production could be obtained from the River Braan by trapping and trucking adults.
- Presented information on why nutrient restoration would be valuable on the River Lyon
- Presented information on the potential value of transporting smolts around dams on the Tummel system.

It is hoped Marine Scotland will give these issues serious consideration.

Salmon in the Classroom

Salmon in the classroom is a joint project coordinated by the Tay Rivers Trust, but delivered by several partners including Perth and Kinross Council Ranger Services, Loch Lomond and Trossachs National Park Ranger Services and the Tay District Salmon Fisheries Board. In 2019, salmon eggs were provided from the Board's hatchery at Almondbank to five local classes, Arngask (two classes), Crianlarich, Dunbarney and the Robert Douglas Primary School in Scone. Three of the schools visited the Board's hatchery and had tours and presentations on our work.

Pacific Pink Salmon

Pacific pink salmon follow a rigid 2 year life cycle. Where they occur, they are characterized by having alternate good and bad years. Following the unprecedented numbers of pink salmon caught around the NE Atlantic area in 2017, a similar episode was anticipated in 2019. In the event, pink salmon were caught over a wide area but, while more than usual, there was not the numbers of 2017. One was caught on the Meikleour House beat in August. It was already running eggs and must have been on the point of spawning.

Board survey of upper Earn knotweed

The SISI Project, described on page 29, is a major initiative to control invasive species. However, the southern boundary of SISI cuts through the Tay district, meaning some areas with significant invasives problems are outwith that project. Nowhere is this more true than on the River Earn where the Japanese knotweed problem is the worst in the whole district. Aware of this, the Board is keen to work with the River Earn Improvement Association to help bring knotweed under control there. Accordingly, in the early summer of 2019, Board staff surveyed and mapped the extent of knotweed between St Fillans and Crieff. This revealed that knotweed covers approximately 50,000 square metres in that stretch, predominantly between Comrie and Crieff. It is hoped that some funding can be found from 2020 to start bringing this plant under control, from top downstream.

Proposed Conservation Regulations 2020

In August 2019, Marine Scotland published the proposed conservation categories for 2020. The Tay SAC (that is the Tay and all its tributaries above the mouth of the Earn) remains CAT 1. The River Eden is to remain CAT 3, but the Earn is to drop from CAT 2 to CAT 3.

A main reason for the drop on the Earn is that a year with a higher catch, 2013, dropped off the five year average and a poor year, 2018, came on. This meant the Earn just dropped below the CAT 3 threshold. In response, it was pointed out that remaining systematic errors in the methodology regarding lowland rivers like the Earn (some of the errors have been resolved by Marine Scotland but there has been a pause to allow progress on other work), probably meant the Earn should not be a proposed CAT 3 at this stage. However, in reply Marine Scotland indicated there would be no immediate review of the model.

Continued lower catches in 2019 mean that what will feed into the model next year will drive the Earn further into CAT 3.

If the Statutory Instrument enacting these proposals are voted through by the appropriate committee of the Scottish Parliament in early 2020, the Earn and Eden will have compulsory catch and release for the full season 2020.

River Garry Flow Restoration Monitoring

As described in previous Annual Reports, flow was restored to the formerly dry part of the River Garry and Allt Glas Choire tributary in 2017. A plan has been agreed between SEPA, SSE and the Board for monitoring the recovery of the salmon population to inform any “adaptive management” that might be required at a later date. There are a number of elements to the monitoring, including observations of ascending adult salmon, redd counts and electrofishing.

In 2019 more encouraging numbers of adult salmon were seen than in 2018. For example, 23 adults were observed on one occasion upstream of the various falls at Struan in October and approximately 20 redds were observed in the Dalnamein area in November. Only one pair of adult salmon was observed spawning in 2018, a much drier year.

In the autumn of 2019, Board staff again electrofished a number of set standard sections for the third year in a row. Electrofishing results are complicated, of course, because the Board has continued to stock the river with eyed ova from reconditioned kelts. This is being done to ensure there is a run of returning adults to jump at the various falls to see whether they might be any sort of barrier or not under the new flow regime.

In order to be able to tell stocked juveniles from wild spawned juveniles, stocking is restricted to the upper half of the river, above where natural redds have been observed. Also, all the broodstock used in the stocking programme are being genetically typed by the University of the Highlands and Islands in Inverness. Then, by sampling juveniles it is possible, using genetic methods, to determine the ratio

of stocked to wild spawned juveniles in the river. Approximately 700 juveniles are being sampled each year for this purpose.

Adult salmon in the River Garry above Struan Falls (top) and below (lower), autumn 2019.





The densities of salmon fry (age 0) and parr (mainly age 1 in the Garry) found at the various sites in 2017, 2018 and 2019 are shown in Figures 6 & 7. All the sites from School House upstream (right on graphs) are stocked with the exception of the Anndeir tributary at the A9 bridge. The lowest three Garry sites were not stocked, although Dalnamein is relatively close to the lower limit of stocking.

In 2018, the first year of the new flow regime proper, there were generally good densities of fry across the board, except in the Garry at Dalnamein. That was curious because most redds were seen in that area in November 2017. The genetic analyses for 2018 are almost complete and will be reported soon. However, initial results indicate that most fry from Schoolhouse upstream were from the hatchery, but at Clunes, above all the falls, they were wild spawned.

However, in 2019, while good densities of fry continued to be found in the stocked areas, numbers declined considerably at Clunes and Struan suggesting poorer wild spawning in November 2018, which is suspected. This will be confirmed or otherwise in due course by the genetic work. Interestingly, fry densities also reduced on the Glas Choire in 2019, but that might have been an effect of there being competing parr present in 2019. The Glas Choire was only stocked for the first time in 2018.

In the stocked areas and close to stocked areas (Dalnamein and Anndeir) parr densities were the highest yet in 2019. There were particularly large increases in the Garry immediately downstream of Garry Intake which was not really stocked before 2018 because it was the driest area. In the spring of 2017, an issue resulted in a failure of the flow (which should not happen in future) in that section. There were concerns at the time that the stocked eggs / alevins might have died as a result. Evidently not.

As detailed on page 33 the number of smolts that were estimated to have left the re-watered part of the Garry in 2019 was 7,187. They were of course derived from the 2018 parr, which were derived from 270,000 eggs stocked in 2017, a survival of nearly 2.7%. Based on the electrofishing data, more smolts can be expected in 2020.

Therefore, what can be concluded so far is that the restored Garry is clearly a good habitat for juvenile salmon and adult salmon can clearly get up at least in a wet summer / autumn. With more significant numbers of returning adults expected from now on, colonization by natural spawners should speed up in the coming few years.

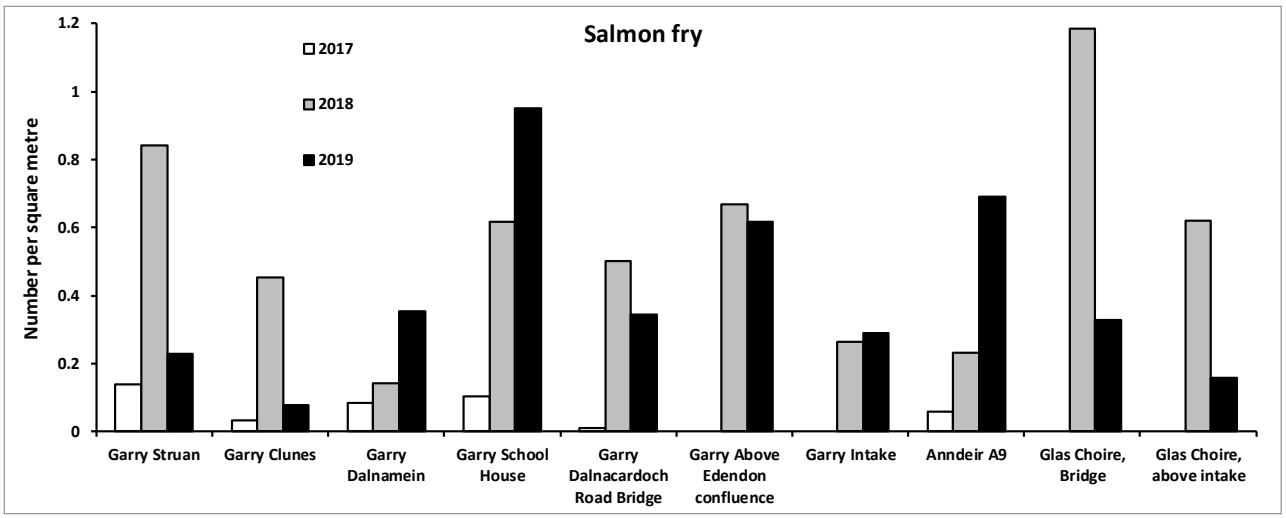


Figure 6. *Densities of age 0+ salmon fry found by quantitative electrofishing at standard sites in the River Garry, 2017 – 2019.*

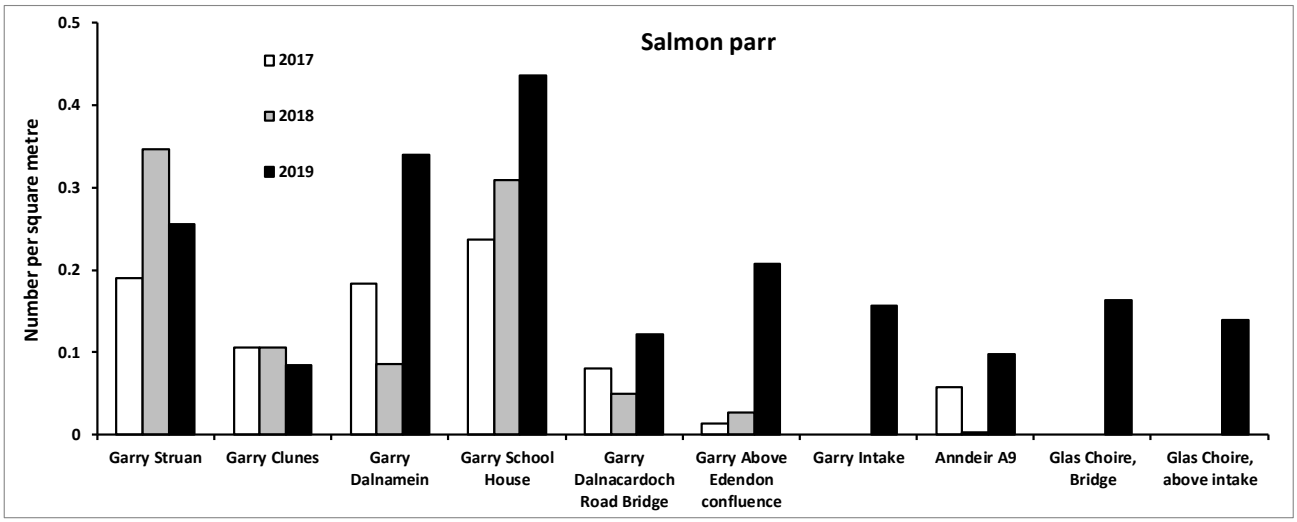


Figure 7. *Densities of age 1+ salmon parr found by quantitative electrofishing at standard sites in the River Garry, 2017 – 2019.*

Diseased fish

In the late spring and early summer of 2019, there were widespread reports, particularly from northern Scotland, of adult salmon presenting haemorrhaging on the belly. Some of these fish developed fungus and died, seemingly in significant numbers on some rivers. Fungal infections are not unusual in some parts of the Tay catchment at that time of year, and notably high mortality was not reported here. However, there was a period when fish with red marks were caught on the Tay and anglers reported some moribund or dead specimens to Marine Scotland. Two fish analysed from the River Garry were not suitable for testing for bacteria or viruses, but had infestations of the *Anisakis simplex* worm. Fish with those symptoms reduced as the summer went on. As yet, the precise cause of this condition does not appear to have been identified.

Clunie Power Station Compensation Turbine Proposal

In late 2018, SSE applied for planning permission for a new compensation flow turbine to be located at Clunie Power Station. This smaller turbine would run all the time and use water that otherwise would have been used by the existing larger machines on an on-and-off basis.

The Board objected to the planning application. As this was a smaller turbine than the existing ones (which are now unscreened and are thought perhaps to kill around 30% of smolts), it might be even more damaging. SSE accepted that the turbine would have to be shut off during the smolt run. However, as there is no information from this site, the potential period of shut down might need to be quite large, including a period in the autumn for pre-smolts. Given the length of period the turbine might need to be switched off, SSE decided to withdraw the application.

SSE proposed a similar arrangement to deliver the compensation flow at Lubreoch Dam at the head of the River Lyon. As Lubreoch Dam is the end of the road for salmon, the Board did not object there.

National Electrofishing Programme for Scotland (NEPS)

In 2018, Marine Scotland initiated the National Electrofishing Programme for Scotland (NEPS). The purpose was to produce a juvenile electrofishing protocol to complement catch data in future river categorization. The Board, along with other boards and fisheries trusts, was contracted to electrofish juvenile salmon and other fish at 30 sites across the Tay district. These sites were selected by Marine Scotland Science using a randomised protocol designed to remove site selection biases.

Following a workshop in the spring of 2019, where potential refinements to the methodology were discussed, a report detailing the 2018 results was published by Marine Scotland. This suggested that entire Tay district, including the Earn and Eden, might be Category 2, on the criteria developed. The report and further information can be found at https://www2.gov.scot/Topics/marine/Salmon-Trout-Coarse/Freshwater/Monitoring/ElectrofishingProgramme.

The exercise was repeated again in 2019. Board staff commenced the work in July and completed the work by the end of August, the first river to do so.

Low flows and smolt migration

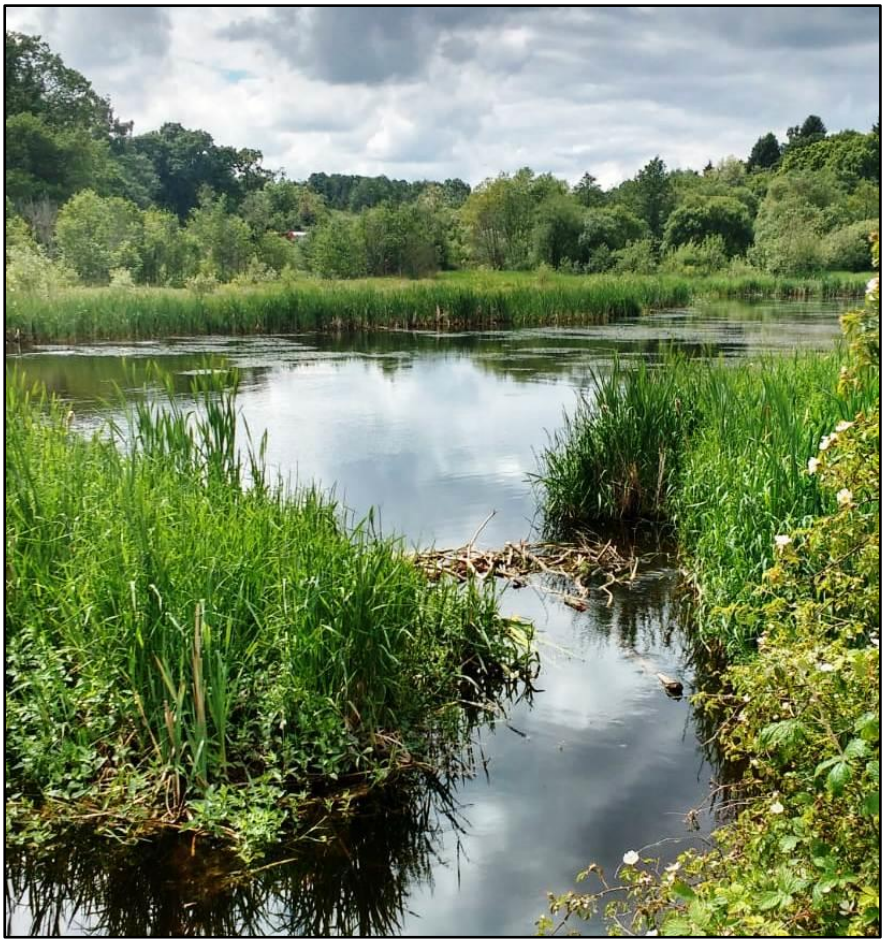
While much of the 2019 season was characterized by high water, the critical smolt migration period in late April / early May was relatively dry and low flows prevailed for the most part. This led to potential issues for smolt migration past obstructions in some locations. Issues on the River Ericht are described on page 21.

While, Pitlochry Dam is not normally considered an issue for smolt passage, Board staff observed some shoals of smolts milling immediately above the dam in early May. However, over time, the shoals did not disappear but grew in size. SSE were alerted to the issue and changes were made to generation practice and loch level management which appeared to result in the smolts moving on.

On Stormontfield Lade, Board staff were alerted to maintenance works which resulted in the lade being blocked at the time smolts were migrating. Board staff alerted SEPA. The blockage was removed and works postponed until after smolt time.

On the lower Shochie Burn, there is a dam and fish pass which has become a focus for beaver activity. During the dry period in May, Board staff had to remove an incipient dam from the mouth of the fish pass on an almost weekly basis otherwise smolts may never have been able to get to sea.

During dry weather in April / May, beavers repeatedly started blocking the exit to Battleby Loch on the Shochie Burn, requiring clearing every few days. Under low flows in a burn of this size, even a very modest beaver dam could trap smolts, delaying their migration and making them vulnerable to predation.



River Ericht abstraction

Issues resulting from a fish farm abstraction from the River Ericht have been noted during drought periods over many years. A review of this abstraction had long been on SEPA's to-do-list. However, the protracted drought of summer 2019 brought this issue to a head and a commitment was made to perform a review.

Accordingly, in early 2019, SEPA suggested changes to the abstraction licences and sought views through formal consultation and meetings with interested parties. Previously, the abstractor was licensed to take up to 2 cumecs from the River Ericht into the lade at any time. Under the proposals, the flow that could be abstracted would start ramping down once the total flow in the river reached 4.13 cumecs. The licensed volume would effectively half (1.01 cumecs) when the total flow in the river reached 2.24 cumecs, reducing further to 0.63 cumecs when the total flow reached 1.56 cumecs. These changes would mean the fish farm would have to significantly reduce abstraction once flows in the Ericht were quite low. The fish farm would manage this by partial recirculation of the water in the fish farm.

The Board welcomed the fact change was proposed but felt it did not go far enough. For example:

- There would still be a band of flow between about 2.5 and 3 cumecs, where the majority of the flow could still be abstracted. In certain circumstances, adult salmon may still migrate into the Ericht under such flows.
- The proposals were aimed at achieving compliance with "moderate" status under Water Framework Directive criteria. The Board was under the impression the point of WFD was to achieve "good" status.
- An initiative that was meant to reduce abstraction from the river, resulted in a proposal to increase the maximum amount of water that could be abstracted from the lade into the fish farm from 0.9 cumecs to 1.4 cumecs. Future increases in production that might result would increase risks to the River Ericht.
- Ensuring that any smolts entering the lade from the Ericht should be able to easily pass the fish farm entrance. The proposed changes in flow meant that under certain conditions the bypass flow might be too low to be attractive to smolts.
- The Board was concerned that there was a provision to allow a temporary increase in abstraction to take place in an emergency such as pump failure.

In the event, the changes proposed by SEPA went ahead and the new licence conditions came into force on 10 July, although there has been a period in which flow monitoring arrangements etc are worked out.

However, SEPA further stated that this variation was part of a "staged approach" and that these flow improvements would be "interim". SEPA intends to conduct a further review "once the site has been operating under the new abstraction limits for a few months with the aim of working with the operator to further improve river flows over the next 2 years."

In view of the commitment to a further review, the Board used opportunity to obtain better information to inform the process. For example, how do smolts use the lade? During late April and early May 2019, Board staff deployed GoPro cameras in the lade over several nights and smolts were filmed, with lights, at the fish farm intake screen. Notable observations were that a) smolts were not drawn onto the screen, they avoided it, but b), at least under lights, they were not keen to enter the current bypass pipe. C) The screen area made smolts vulnerable to otter predation. Good footage was obtained of otters attacking smolts at the screens.

Recommendations were made to SEPA regarding improved by-wash provision.



Large group of salmon smolts swinging across water intake screens, Westmill Fish Farm, River Ericht.



Otter attacking a salmon smolt on the water intake screens, Westmill Fish Farm, River Ericht. Note the smolt darting away, left bottom corner.



Drone surveying

In 2019 the Board purchased a drone and two of the Board's staff has been trained and issued with Civil Aviation Authority permission to operate it. The drone will be used to monitor salmon spawning in areas to wide to be visible from the bank (e.g. in the Tay) and other types of survey as required.

Problems with Access Road to the Hatchery

The Board leases both the current hatchery site and the previous hatchery site from Scottish Ministers who own the wider site and access road. The Board had been sub-letting the old hatchery building to a third party. The Board's lease from Scottish Ministers also made the Board responsible for the upkeep of the access road.

However, a short section of the access road showed signs of subsidence. A survey recommended that there should be minimal heavy vehicle usage and that repairs would be required. The subtenant, which required heavy lorry access, found other premises and quotations are still being sought for repair work. As a result of discussions held with representatives of Scottish Ministers, at the time of writing, Scottish Minsters have agreed to sell the entire site and access road to the Tay Rivers Trust, which will then become the Board's landlord. The process is ongoing.

Beavers

On 1 May 2019, beavers received European Protected Species status. While now protected, certain works may still be permitted to mitigate negative impacts. Potential mitigations are described in the Scottish Beaver Management Framework, which is informed in part by the Scottish Beaver Forum on which both Fisheries Management Scotland and the Board's Director sit.

Some mitigation activities can be performed without a licence, for example, discouraging beavers from an area or removing a dam which is less than two weeks old. However, removal of older dams or lodges and trapping or shooting problem beavers requires a licence from Scottish Natural Heritage. SNH will advise.

Various actions are being tried locally to mitigate beaver impacts. The most significant of these is to try to exclude beavers from the catchment of the Meigle Burn. This will involve fencing and crucially a bar screen or heck near the bottom of the burn to prevent beavers swimming upstream. The Meigle Burn is degraded and not considered prime salmon habitat but, in the Board's view, some fish may use it. Therefore, the bar spacing on the screen must be wide enough to allow salmon through but not beavers.

Proposed Offshore Wind Farms

Following several years of stasis because of a judicial review, processes are now underway again for the installation of three large windfarms in the sea off the mouth of the Firth of Tay. Part of the conditions of consent are that there should be monitoring of migratory fish. This process is still at an early stage but will be informed by the Forth and Tay Regional Advisory Group which has been revived. Both the Board and Fisheries Management Scotland are members.

Meeting with Tay Ghillies Association

In August Board members and senior staff met with members of the Tay Ghillies Association, at the TGA's request. TGA members were worried about the general state of salmon catches and were concerned to ensure the Board was doing all it can in its power to address this. All concerned considered the meeting to have been worthwhile and agreed to ensure there was always good communication between the two organisations.

Tay Rivers Trust

For many years the Board has worked closely with the Tay Foundation, a charitable company limited by guarantee. In 2019 the Tay Foundation changed its name to Tay Rivers Trust and is looking to significantly increase its profile and activity in the district. The Tay Rivers Trust approached the Board exploring a better alignment of the work of the two organisations, in order to create a whole that was more effective than the sum of the two parts. The proposals have yet to be formalized.

Publicity and Promotion

In 2019, the content on the Board's website (www.tdsfb.org) was given a major overhaul and updated. For some years, the Board has paid for a weekly summary of catches to be written for the Fishtay website. This year, this task was taken over by Samantha and Sandy Datta of Salmon Fishing Holidays Scotland. In addition to posting the weekly report on Fishtay, it is also posted on the Board's website. An archive of the 2019 reports can be found at http://www.tdsfb.org/weeklyreports.html.

In 2018, Board staff spent a considerable time assisting a film crew produce a documentary for the BBC. *The River: A Year in the Life of the Tay* was broadcast in July on BBC 4. The film was well received and included elements of the work of the hatchery and smolt trapping and tagging in the Tummel catchment.

Some of the Board's work received coverage in the local press, most notably in a series in the Courier about the River Tay (https://www.thecourier.co.uk/shaped-by-a-river-the-tays-protectors/).

The Board and Tay Rivers Trust shared a fish conservation stand at the Scone Game Fair with the Game and Wildlife Conservation Trust and Marine Scotland Science.

Mapping Atlantic Salmon Pressures

Marine Scotland and the Scottish Fisheries Coordination Centre (now part of Fisheries Management Scotland) is developing a map-based tool to aid the identification and quantification of the pressures that salmon face across Scotland. This will facilitate the collation of local management priorities which may ultimately enable coordinated national management action. The Board was one of six rivers which piloted the use of the tool in 2019. It is anticipated the final version will be rolled out in the near future and funding will be provided by Marine Scotland to complete the process.

Scottish Enterprise Investigation

Scottish Enterprise commissioned investigations into a) the present state of commercial salmon angling and b) to identify potential marketing solutions etc. The value of the former would be to help highlight the challenges salmon fishing faces at this time of declining catches to policymakers etc. This initiative was instigated on the Tweed, but came to encompass the Dee, Spey and Tay also. As part of this process, meetings were held with board directors, focus groups of industry stakeholders and a web-based survey. Both reports can be found at http://fms.scot/wp-content/uploads/2019/11/Dunco-Opportunities-for-Scotlands-Rivers-Aug19-1.pdf and http://fms.scot/wp-content/uploads/2019/11/Fraser-Associates-Impact-of-Decline-in-Salmon-Numbers-on-Rural-Businesses-Final-Draft-11-09-19-1.pdf.

Meetings attended

During the course of 2019, Board staff attended numerous meetings in addition to any previously mentioned.

The Board's Fisheries Director attended:

- Two meetings of the River Garry Technical Working Group with SEPA and SSE.
- A meeting convened by Fisheries Management Scotland and SEPA to discuss potential ways of improving adult salmon and smolt passage around large hydro dams.
- The annual Scottish Fisheries Coordination Centre biologists' meeting.
- Two meetings of SEPA's Fish and Fisheries Advisory Group and a workshop on the passage of smolts round hydro dams.
- Marine Scotland National Electrofishing Programme for Scotland, two 2 day workshop.
- Talk to Abertay Probus Club, Broughty Ferry.
- Talk on hydro issues at Fisheries Management Scotland's Annual Conference and chaired a session on high seas pressures.
- Joint talk with SEPA on the River Garry Restoration to the Scottish Freshwater Group.

Craig Duncan attended several meetings of the Wildlife and Rural Crime Steering Group and Fisheries Management Scotland's Enforcement Committee.

Opening Day 2019 celebrations at Meikleour

In 2019 the Board once again supported the opening day ceremony at Meikleour. The event, organized by Board member, Claire Mercer Nairne, and supported by Perthshire Chamber of Commerce, grows in strength each year.

The traditional blessing of the boat ceremony was performed by Willie Wilson, Depute Provost of Perth and Kinross and Polly Murray, the first Scottish woman to scale Mount Everest. Polly went on to make the first cast of the new season.

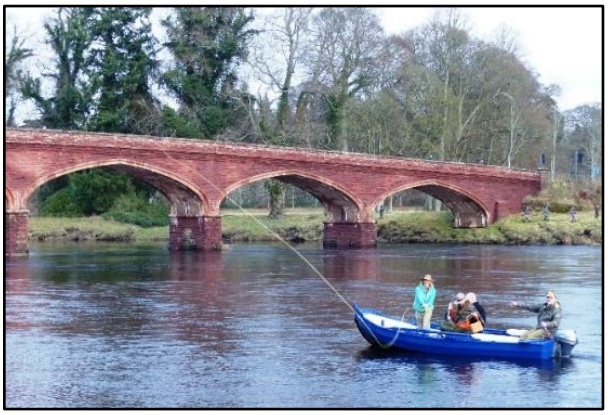
The Malloch Challenge Trophy was also awarded to the 2018 winner, local angler Philip Black, for a 28 pound springer he caught on the River Teith.













FISH COUNTER RESULTS 2019

Unfortunately, at the time of writing (end November), finalised count data from SSE's four fish counters in the district are not yet available. The only provisional data that can be shown are from the public display of SSE's fish counter at Pitlochry Dam on the River Tummel. These counts are uncorrected for "droppers" and may be an overestimate.

However, even though they may be an overestimate, at 1660, the 2019 Pitlochry count was, by far, the lowest count ever recorded (Figure 8).

Salmon were initially quick to start ascending the Pitlochry counter because of mild temperatures and the April count was relatively high (Figure 8). However, the counts really stalled in May and June. At the time, this generated major concerns about the lack of fish.

However, between September and October, despite only approximately 170 fish being counted, 14 PIT tagged adults were detected (page 34). Such a proportion of PIT tagged fish seems higher than should be expected and has led to concerns that there may be an issue with counter accuracy following the installation of a new counter in 2018. This will be the subject of further investigation.

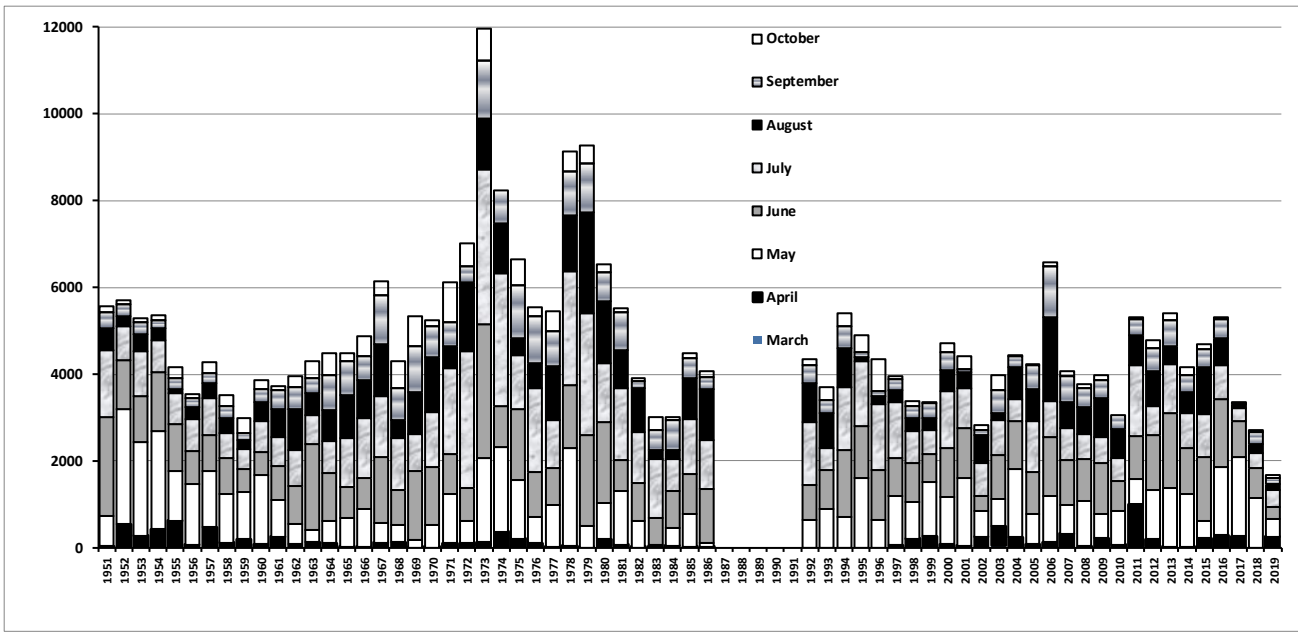


Figure 8. *Monthly net upstream counts, Pitlochry Dam, 1951 to 2019. (Data courtesy of the late Michael Gardner, David Stewart, Ross Gardiner and SSE)*

2019 IN REVIEW: SISI IN THE TAY CATCHMENT

Mark Purrmann-Charles

Esks / Tay Scottish Invasives Species Initiative Project Officer

I am pleased to report that we have made good progress on the Tay in 2019, both with invasive plant control (INNS) and mink.

For mink we have seen a very impressive uptake. The figures up to September 2019 are as stands (2018 number in brackets for comparison):

Number of mink rafts: 28 (0), Number of mink traps: 49 (17), Number of volunteers involved: 39 (9), Volunteer hours: 2124 (462), Mink dispatched: 31 (9).

We would like to see the number of mink caught be higher, as we know there are more around, but this figure represents a significant increase on the previous year. If you would like to get involved with the trapping programme, or are already trapping and have caught mink this year, please get in touch with me as I would very much like to record these captures and/or get you officially involved in the project.

For invasive plants we have also made significant strides this year. We undertook INNS control along 30km of river this year, working with landowners, fishing beats, national organisations, clubs and local communities. The figures up to September 2019 are as stands:

Number of plant volunteers: 97 (3), Plant volunteer hours 684 (38), Volunteers trained: 14 (9), School groups 2 (0).

I would like to congratulate everyone who took part this year for their hard work and commitment. We have great momentum that we can build on this coming season and I look forward to working with everyone again. If you are not involved in the project and would like to access training, equipment, chemical and support in dealing with INNS, please get in touch. I am looking to expand where we are working this coming season, so if you are based in between Loch Tay to the Tay/Tummel confluence, or from Blair Atholl to the Tay/Tummel confluence, I would be very keen to hear from you. It is also very likely you will be hearing from me either way.

Thank you to everyone who has been involved with the project so far. It has been a pleasure to work with you all, and I look forward to welcoming more on board for 2020.

Mark Purrmann-Charles

markeskrivers@gmail.com 07741639556



Volunteers performing invasive plant control in the Tay catchment.

PRIORITY PROJECTS 2019

In 2019 the Board agreed to prioritise 10 specific projects / issues.

Bird Predation
To a) get a better handle on the extent of predation on juvenile salmon by sawbill ducks and cormorants by, for example, more extensive and regular counting and b) to be more effective at scaring these birds including through the use of the shoot to scare licences issued by SNH.

Water abstraction on the River Ericht
To continue to work with SEPA and others to ensure a satisfactory solution to the fish farm water abstraction issue on the River Ericht at Blairgowrie.

Water abstraction on the River Lochay
To continue to make representation to Scottish Government and SEPA to ensure that reductions in hydro water abstractions are made on the River Lochay, in line with the Scotland RBMP.

Shochie Weirs
To work with landowners and SEPA to come to long term solutions to weirs, ideally removal, on the Shochie Burn. Though currently passable with ongoing maintenance, pose threats for the future.

Beavers
In autumn prior to spawning and in spring prior to the smolt run, key spawning tributaries will be monitored for beaver dams which will be removed where risks to fish migration are identified.

Hatchery
Ten new tanks will be installed in the hatchery for 2020 allowing us to triple fed parr production.

Lunan Water Riparian Project
Densely shading alder trees will be removed from a section of the Lunan Water to let in light and encourage the growth of water weed etc to provide cover and food for salmon parr which grow slower here than in other low Isla tributaries.

Monitoring the River Garry Flow Restoration
Work, mainly electrofishing, will be conducted to assess to recover of the River Garry salmon population following the restoration of flow in 2017.

Crayfish
The present distribution of signal crayfish in the district needs to be assessed, particularly in the Blackwater/Ericht.

Invasive plants
In the eastern/north eastern half of the district invasive plants are being dealt with under the SISI project in which the Board is a partner. But SISI does not cover the River Earn which has the worst problem with Japanese knotweed. Board staff will assist REIA to do work independent of SISI.

ROYAL VISIT

On 30 October 2019, the Board's hatchery received a visit from His Royal Highness The Duke of Kent. His Royal Highness was given a brief tour of the facility with a description of the unique nature of the work undertaken. Most fortunately, the first adult broodstock were ready to spawn and he was shown a live demonstration of salmon egg stripping and fertilization.











Photos by Crieff Photography.

RIVER TUMMEL SMOLT TAGGING PROJECT

The River Tummel smolt project hopes to provide a) annual estimates of the survival rate of salmon between migrating as smolts and returning as adults to the River Tummel and b) to determine whether Pitlochry Dam poses a problem for smolts. 2019 was the fourth year of the project, but the second to provide meaningful return data.

Smolts were captured upstream of Pitlochry Dam in two rotary screw traps. In 2018 and 2019, one was placed in the Errochty Water and the other on the recently re-watered Garry at Struan. The smolts were tagged with Passive Inductive Transformer (PIT) tags, tiny "chips" inserted into the body cavity through very small incisions. Each PIT tag is coded with a unique number which can be read by a detector located in the fish pass at Pitlochry Dam, if and when the fish returns as an adult salmon.

In both the Errochty and Garry, a proportion of tagged smolts were released some distance upstream of the traps to allow trapping efficiency to be estimated through recapture rates. Others were released immediately upstream and downstream of Pitlochry Dam to test for any difference in adult return of smolts that had to pass through the turbines.

Smolts tagged in 2019

The numbers of smolts caught in 2019 and numbers released at different locations are shown in Table 3. It is notable that the newly re-watered section of the Garry produced twice as many smolts during the period of trapping (early March to early May) as the Errochty, through stocking of course. The Garry is the longer and wider river, however.

	No. caught	No. tagged	Released above Pitlochry Dam	Released below Pitlochry Dam	Released near trap	% Recaptured	Overall river smolt estimate
Errochty Trap	1,511	1,256	473	347	544	42%	3,565
Garry Trap	1,790	1,552	450	536	722	24.8%	7,187

Table 3. *Numbers of smolts caught in the Errochty and Garry smolt traps, and numbers released at different locations, spring 2019. Note, some smolts released at Pitlochry were previously recaptured in the trap having been released above. Therefore, some are included twice.*

Adult return rates

The numbers of adults detected from each tagging year since the project started are summarized in Table 4. While this project has only been running long enough to cover one full cohort to 3SW (2016 smolts), a reasonable extrapolation would also see the full 2017 cohort returning less than 2% and perhaps the 2018 cohort a little over 2%. These percentages are considered low, as a return rate of

perhaps 5% or more was initially hoped for. Return rates from the batches released at different sites did vary but show no consistent effects so far, and therefore are not presented here.

Smolt year	**2016**	**2017**		**2018**	
Trap site	Errochty	Errochty	Garry	Errochty	Garry
No. smolts tagged	388	1647	293	1491	729
Number (and %) detected as 1SW	3 (0.77%)	13 (0.79)	1 (0.34%)	15 (1.01%)	9 (1.24%)
Number (and %) detected as 2SW	3 (0.77%)	8 (0.49%)	4 (1.37%)	-	-
Number (and %) detected as 3SW	1 (0.26%)	-	-	-	-
Overall % return	1.8%	1.28%	1.71%	1.01%	1.24%

Table 5. *Numbers of adults detected at Pitlochry Dam from each year's smolt tagging, by sea-age.*

Timing at Pitlochry Dam

Table 6 breaks down the 2019 adult returns by the month in which they were detected in the fish pass at Pitlochry Dam. A significant proportion of the detections were made relatively late in the year when counts registered on the fish counter were low (page 28). For example, 5 PIT tagged adults were detected in October but only *ca*. 50 on the fish counter. Interestingly, the one 2SW fish detected in March was detected again some time later, presumably having descended the pass but was not detected again ascending.

Sea-age	1SW		2SW		3SW
Tagging site.	Errochty	Garry	Errochty	Garry	Errochty
March				1	
April					1
May			4	1	
June			1	1	
July	6	1		1	
August	1	5			
September	5	3	1		
October	3		2		

Table 6. *Numbers of PIT tagged adult salmon, by sea-age, detected in each month at Pitlochry, 2019.*

In conclusion, this project continues to show that smolt to adult survival is currently at a very low level and this is the major driver behind the recent decline in salmon numbers. So low are the returns that the numbers of smolts that can be practicably caught and tagged may be insufficient for a meaningful transportation experiment above and below Pitlochry Dam.

AQUACULTURE AND FISHERIES (SCOTLAND) ACT 2013

The Aquaculture and Fisheries (Scotland) Act 2013, placed a number of new duties on DSFBs relating to openness and accountability. It requires that the Annual Report should include:

1) A summary of what the board has done in carrying out its statutory functions during the year to which the report relates.
2) A summary of what the board propose to do in carrying out those functions in the following year.
3) Information about complaints made to the Board during the year, including: the number of complaints; and a statement of the nature of each complaint and how it was disposed of.
4) A statement as to how the Board have complied during the year with the good governance requirements and propose to comply with those requirements in the following year.

Point 1) has been covered by the main body of this report. 2) has partly been summarised by the main body of the report but might be further summarised by saying that the Board intends to continue to work on the same issues covered in 2019. It will continue to pursue the projects listed on page 31 but will review them over the winter 2019/20, potentially adding more in 2010.

Regarding point 3), as of the time of writing (November 2019), no complaints were received in 2019.

New governance requirements

The Act placed a number of governance requirements on DSFBs, as indicated in point 4) above.

Meetings

All meetings of the Board, including Board meetings and the annual meeting of qualified proprietors, were open to the public as observers, and will continue to be so, although some items of business at Board meetings may be taken in private.

There was an annual public meeting on 20 March 2019, which was separate from the annual meeting of proprietors. Members of the public participated fully and minutes of the meeting can be found at www.tdsfb.org/reports.html. There will be another such meeting in 2020.

The dates and details of forthcoming meetings can also be found at www.tdsfb.org/reports.html.

Once approved at the next meeting, the minutes of Board meetings are published at www.tdsfb.org/reports.html where they will continue to be published. Hard copies can also be obtained from the Clerk on request.

Annual Report and Accounts

The Annual Report with accounts for 2017/18 was published at www.tdsfb.org/reports.html and hard copies were sent to all qualified proprietors in the district and a copy sent to Scottish Ministers. This report and subsequent Annual Reports will also be published on the same basis and a copy will be sent to Scottish Ministers.

Complaints procedure

The Board has set up and maintains a complaints procedure which can be viewed at www.tdsfb.org/governance.html.

Board members' interests

The Board has set up a register of members interests. This can be viewed on request at the Board's office. We have included a standing item at each Board meeting inviting Board members to declare new/amend existing interests and all such instances are recorded in the minutes of these meetings.

TAY DISTRICT SALMON FISHERIES BOARD

Minutes of Annual Meeting of the Proprietors within the Tay District held in terms of Section 44(1) of the Salmon & Freshwater Fisheries (Consolidation) (Scotland) Act 2003 held at Birnam Institute, Birnam, Dunkeld at 11am on Wednesday, 12th December 2018.

Present: Iain McLaren (Convener)
David Barwick
Geoff Coates
Alan Dunnet
Edward Eadie
Ken Freshwater
Alastair Gillespie
David Godfrey
John Lessels
Alan Malone
Claire Mercer Nairne
Jim Perrett
Mike Smith
Duncan Twigg
Simon Wright

In Attendance: Dr. David Summers, Fisheries Director
Inga MacGillivray, Clerk to the Board
Mike Brown
Simon Furniss
Peter Greig
Gary Harkin
Rona Harkin
Mike Hay
Stephen Mannion
Colin McFadyen
John McDougall
Sandy McIntosh
Cohn O'Dea
Davie Seaton
Alex Stewart
Geordie Stewart
Steven Watt
Bob White

Apologies: Grant Tigwell
Ross Gardner

The Convener opened the meeting with a brief description of the fishing year, and reminded the audience about the 2019 Opening Day details.

Minutes of Annual Meeting of Proprietors held on 12th December 2017:

The Minutes of the 2017 Annual Meeting of Proprietors were previously circulated in the Annual Report and taken as read. There were no matters arising, and on a proposal by Bobby White, and seconded by David Godfrey, were approved.

Accounts for the Year Ended 31st December, 2017

The Accounts for the year ended 31st December 2017, which were incorporated into the Annual Report, had been circulated and were taken as read.

The Clerk gave a brief overview of the accounts and the main variances year on year. 2017 saw a surplus of £32,943.

There were no questions, and on a proposal from Simon Furniss, and seconded by David Godfrey, the Accounts were approved.

Annual Report 2017/8

The Annual Report 2017/8 had been previously circulated and was taken as read.

Board Activities in 2018 and beyond

Dr. David Summers gave an overview of the events of 2018, highlighting low water levels, abstraction issues, and downward growth rate of grilse as particular problems. He also highlighted some of the main Board activities throughout the year.

Poor Runs

Dr. Summers stated that the returns from our 2016 tagging project indicated a return of 0.77%, and that there was a similar picture for 2017/8 figures. He noted that a similar project on the Conon had a 9% return rate some years ago.

Claire Mercer Nairne asked if the smolts were dying in the river, to which Dr. Summers replied that some could be but that the majority of the problems occurred at sea and this had hit all areas on the East Coast from the Tweed to the Spey.

Duncan Twigg asked if this phenomenon was world wide, to which Dr. Summers replied that England and Wales had been hard hit also.

Marine issues

Dr. Summers went on to explain some of the issues at sea, particularly increasing temperatures in the NE Atlantic. An indicator, mackerel are now migrating much further north and west and this is overlapping with areas where salmon post-smolts may be found. The growth rates of mackerel in these areas is reducing, as with grilse.

He suggested that either the general overall productivity of the Norwegian Sea has declined, or mackerel are now competition for smolts. There was still uncertainty as to whether mackerel are a symptom of marine issues or are the problem for returning salmon.

Board Activities during the year

Hatchery/Kelt Reconditioning Project

Dr. Summers explained that egg production from the hatchery was now its highest since the new facility was taken over in 2011, due largely to TGA and other volunteer help with broodstock collection last year and this year. It was planned to expand the hatchery in 2019. The flume is being removed and will be replaced with further tanks in the spring.

Rewatering of the Garry

Dr. Summers stated that the Garry now had water and that SSE had continued with work to some tributaries. A number of fish have now been spotted spawning in the Garry. He went on to explain that electrofishing studies had been carried out whereby fin clips had been taken and UHI would now analyse these and genetically type them to ascertain the origins of the fish, whether stocked or wild.

Pitcastle Hydro

Dr. Summers explained the Board's input and directed the audience to the annual report should they wish to know more.

NE England Drift net and Fixed net Fisheries

Dr. Summers explained there had been a consultation to ban all netting in NE England. The consultation had finished too soon for the verdict to affect 2018 but was hoped to be effective in 2019.

Salmon Conservation Regulations

Dr. Summers stated that the methodology behind the categorisation process was flawed, and that the Government had acceded this and committed to make changes.

Spring Catch & Release Regulations

The Convener and Dr. Summers had met with Scottish Government and similar regulations would be in place for 2019.

Scottish Invasives Species Initiative (SISI)

Dr. Summers explained that the project was now well under way and that the target for 2019 was to control knotweed and hogweed on the main stem of the river.

Beavers

Dr. Summers explained that Scottish Government was looking into the protection of this species.

Offshore Windfarms

Dr. Summers stated that 3 big windfarms were in development off the mouth of the Tay and that the Board would likely be involved with monitoring of migratory fish.

Future Developments

Dr. Summers explained that the Board's future priorities were many but the main focus would be on reviewing the Board plan, drone surveys, Government electrofishing surveys and removal of Shochie weir.

Smolt Tagging Project

Mike Brown, Operations Manager, then gave a presentation on the smolt tagging survey so far.

Any Other Business

Hatchery/Stocking Out:

Steven Watt asked whether parr were fin clipped when stocked out, to which Dr. Summers replied they were and that anglers could look out for them and report to the Board.

The Convener informed the audience that the hatchery would be increasing production due to a very generous grant from John Apthorp to knock down the existing flume and replace with more tanks.

Steven Watt asked how many new tanks would be installed, to which Dr. Summers replied ten.

Steven Watt then asked what this did for stocking out capacity, to which the Convener replied the new tanks would add roughly 30,000 to the numbers to be stocked out. He went on to add that areas were only stocked where they would do most good.

Steven Watt asked that the Board publicise for anglers to look out for fin clipped fish, to which the Convener agreed.

Fishponds

Mike Smith stated that the TGA had brought up the idea of reopening Fishponds but the Convener seemed against the idea.

The Convener agreed that he was personally not in favour of Fishponds and as a Board member had to ensure Board funds were used sensibly. Furthermore, the opening of Fishponds would only benefit the lower Tay and not the whole system.

Steven Watt interjected that the hatchery facility at Almondbank was the "Fishponds" and that the Board did a fantastic job with it.

Bobby White asked if the Board could release more parr, to which Dr. Summers replied this would be done once the new tanks were in place.

Juvenile Surveys

Bobby White asked what the results from the juvenile surveys had been, to which Dr. Summers replied that the survey statistics were to go to Scottish Government for collation and a report would be generated.

Catch & Release Policy

Ted Eadie asked if the C & R policy would be similar to 2018 for 2019, to which the convener replied that the C & R policy would be in line with 2018, but that adjustments would be made should conditions change.

Stocking

Steven Watt asked if there was any possibility of stocking the Braan and main stem of the Tay, to which the convener replied that the Board were not allowed to stock the Braan due to SNH constraints. Cohn O'Dea asked if Catholes could be stocked. Dr. Summers replied that Catholes was good for stocking parr but that the main stem had better spawning grounds so we may not want to stock there, as it already has a healthy juvenile population.

Simon Wright asked if there were future plan to stock the earn, to which Dr. Summers replied that the Ruchil and Beith would continue to be stocked. Furthermore, the Board has been granted permission to catch fish on the Earn by hook and line to check fecundity levels.

Steven Watt proposed a vote of thanks to the Board for their presentation.

There was no other business and the Convener closed the meeting.

INDEPENDENT AUDITOR'S REPORT TO THE PROPRIETORS OF SALMON FISHERIES IN THE TAY DISTRICT

In accordance with the Salmon and Freshwater Fisheries (Consolidation)(Scotland) Act 2003, section 44, we have audited the financial statements of Tay District Salmon Fisheries Board (the 'Board') for the year ended 31 December 2018 which comprise the Income and Expenditure Account, the Balance Sheet and the related notes. The financial reporting framework that has been applied in their preparation is United Kingdom Accounting Standards including Financial Reporting Standard 102, the Financial Reporting Standard applicable in the UK and Republic of Ireland (United Kingdom Generally Accepted Accounting Practice).

This report is made solely to the proprietors of Salmon Fisheries in the Tay District as a body. Our audit work has been undertaken so that we might state to the Board's proprietors those matters we are required to state to them in an auditor's report and for no other purpose. To the fullest extent permitted by law, we do not accept or assume responsibility to anyone other than the proprietors, for our audit work, for this report, or for the opinions we have formed.

Respective responsibilities of duly elected and duly co-opted board members

Section 44 of the Salmon and Freshwater Fisheries (Consolidation)(Scotland) Act 2003 require the Board to prepare financial statements for each financial year which give a true and fair view of the state of affairs of the Board and of the income and expenditure of the Board for that period. In preparing these financial statements, the Board's proprietors are required to:

i select suitable accounting policies and then apply them consistently;
ii make judgements and estimates that are reasonable and prudent;
iii prepare the financial statements on the going concern basis unless it is inappropriate to presume that the Board will continue in business.

The Board's proprietors are responsible for keeping proper accounting records which disclose with reasonable accuracy at any time the financial position of the Board and to enable it to ensure that the financial statements comply with the Salmon and Freshwater Fisheries (Consolidation)(Scotland) Act 2003. It has general responsibility for taking reasonable steps to safeguard the assets of the Board and to prevent and detect fraud and other irregularities.

Scope of the audit of the financial statements

An audit involves obtaining evidence about the amounts and disclosures in the financial statements sufficient to give reasonable assurance that the financial statements are free from material misstatement, whether caused by fraud or error. This includes an assessment of: whether the accounting policies are appropriate to the Board's circumstances and have been consistently applied and adequately disclosed; the reasonableness of significant accounting estimates made by the Board members; and the overall presentation of the financial statements. In addition, we read all the financial and non-financial information in the annual report to identify material inconsistencies with the audited financial statements and to identify any information that is apparently materially incorrect based on, or materially inconsistent with, the knowledge acquired by us in the course of performing the audit. If we become aware of any apparent material misstatements or inconsistencies, we consider the implications for our report.

Opinion on financial statements

In our opinion the financial statements:

- give a true and fair view of the state of the Board's affairs as at 31 December 2018 and of its income and expenditure for the year then ended; and

- have been properly prepared in accordance with United Kingdom Generally Accepted Accounting Practice.

Alan Taylor (Senior Statutory Auditor)
For and on behalf of Campbell Dallas Audit Services
Statutory Auditors
5 Whitefriars Crescent
Perth
Perthshire
PH2 0PA

TAY DISTRICT SALMON FISHERIES BOARD
INCOME AND EXPENDITURE ACCOUNT
FOR THE YEAR ENDED 31 DECEMBER 2018

	NOTES	£	2018 £	2017 £
INCOME				
Fishery Assessments	2		505,489	506,596
Revaluation Appeals			10,255	(40,808)
Bad Debts, Changes to Provision for Doubtful Debts etc			(2,681)	-
			513,063	465,788
Compensation Received (SSE)			6,000	7,158
Rent			10,602	10,873
Consultancy			10,677	3,060
SISI Project			371	-
			540,713	486,879
EXPENDITURE				
Salaries & National Insurance		239,880		209,485
Pension & Death in Service- Board's Contribution		28,365		28,020
Recruitment & Training		3,388		139
Employee Expenses		-		948
Road Maintenance		4,813		-
Bank Charges		224		244
Motor Cars & Boats Running Costs, incl Insurance		30,232		20,946
Rent, Rates & General Insurance		52,997		32,240
Heat & Light		15,157		21,395
Repairs & Maintenance - General		13,503		5,878
Telephone & Communications		9,226		9,069
Printing, Stationery, Postage & Advertising		3,271		2,873
Annual Report Costs		581		677
Meetings & Other Statutory Costs		2,997		3,587
Ghillies Lunch & Meeting		1,062		594
Legal Fees		-		713
Audit & Accounts Fees		4,016		1,730
Depreciation		26,325		18,223
Subscriptions & Levies		19,094		19,116
IT Costs		702		30
Health & Safety Implementation incl Clothing		10,350		8,154
Hatchery Running Costs		65,857		56,449
Project Work		2,968		1,362
Websites		10,625		10,024
Opening Day		780		554
Gifts & Presentations		-		1,784
			546,413	454,234
			(5,700)	32,645
Gain on Sale of Fixed Assets			4,900	-
			(800)	32,645
Interest Received	3		181	298
			(619)	32,943
Surplus (Loss) for the year			(619)	32,943

The notes on pages 45 and 46 form part of these accounts.

TAY DISTRICT SALMON FISHERIES BOARD

BALANCE SHEET
AS AT 31 DECEMBER 2018

	NOTES	£	2018 £	2017 £
FIXED ASSETS				
Tangible Assets	4		101,316	92,798
			101,316	92,798
CURRENT ASSETS				
Debtors & Prepayments		155,068		134,237
Cash at Bank & In Hand		414,563		429,908
		569,631		564,145
CURRENT LIABILITIES				
Other Creditors & Accruals		192,093		177,470
Net Current Assets			377,538	386,675
NET ASSETS			478,854	479,473
Representing:				
Reserves	5		83,434	83,434
General Fund	6		395,420	396,039
			478,854	479,473

These accounts were approved on 10th December 2019

IAIN McLAREN
..... BOARD MEMBER

JIM PERRETT
..... BOARD MEMBER

The notes on pages 45 and 46 form part of these accounts.

NOTES TO THE ACCOUNTS
AS AT 31 DECEMBER 2018

1 ACCOUNTING POLICIES

The accounts have been prepared under the historical cost convention and are in accordance with the United Kingdom Generally Accepted Accounting Practice. The following accounting policies have been applied:

Fixed assets and depreciation

The cost of fixed assets is stated at the net amount after deducting grants available. Donations relating to expenditure on fixed assets are credited to the Profit and Loss Account in the year of receipt, where there are no conditions attaching to the donation.
Depreciation is provided on all fixed assets, at rates calculated to write off the cost over the expected useful lives of the assets concerned as follows:

Hatchery	Over term of the lease
Motor Vehicles	25% per annum straight line
Boats	25% per annum reducing balance
Plant and Equipment	25% per annum reducing balance
Computer Equipment	33.3 % straight line

Taxation

No taxation is provided due to the fact that HM Revenue and Customs has agreed that the Board is not liable for corporation tax.

Death in service scheme

Contributions to the Board's scheme are charged to the Income and Expenditure account in the year in which they become payable.

2 FISHERY ASSESSMENTS

	2018		2017
	Rateable Value	Assessment	Rateable Value	Assessment
	£	£	£	£
Upper Proprietors	1,096,030	504,174	1,096,030	504,174
Lower Proprietors	15,450	7,107	15,450	7,107
	1,111,480	511,281	1,111,480	511,281
Less River Shee		115		115
Estuarial Netting Stations		4,106		4,106
		507,060		507,060

The Assessments are based on 46% of Rateable Value (2017 – 46%)

3 INTEREST RECEIVED	2018	2017
	£	£
Bank Interest	181	298
	181	298

NOTES TO THE ACCOUNTS (cont'd)
AS AT 31 DECEMBER 2018

4 FIXED ASSETS

	Leasehold Property	Motor Vehicles	Boats	Plant & Equipment	Office and Computer Equipment	Total
	£	£	£	£	£	£
Cost:						
At 1 January 2018	191,468	93,418	42,671	186,517	20,028	534,102
Additions	-	12,750	-	16,665	5,427	34,338
Disposals	-	(9,708)	-	-	-	(9,708)
At 31 December 2018	191,468	96,460	42,671	203,182	24,951	558,732
Depreciation:						
At 1 January 2018	112,595	81,735	42,571	184,374	20,028	441,303
Charge for Year	7,889	11,896	26	4,705	1,809	26,325
Eliminated on Disposals	-	(9,708)	-	-	-	(9,708)
At 31 December 2018	120,484	83,923	42,597	189,079	21,837	457,751
Net Book Amounts:						
At 31 December 2018	70,984	12,537	74	14,103	3,618	101,316
At 31 December 2017	78,873	11,683	100	2,143	-	92,799

5 RESERVES

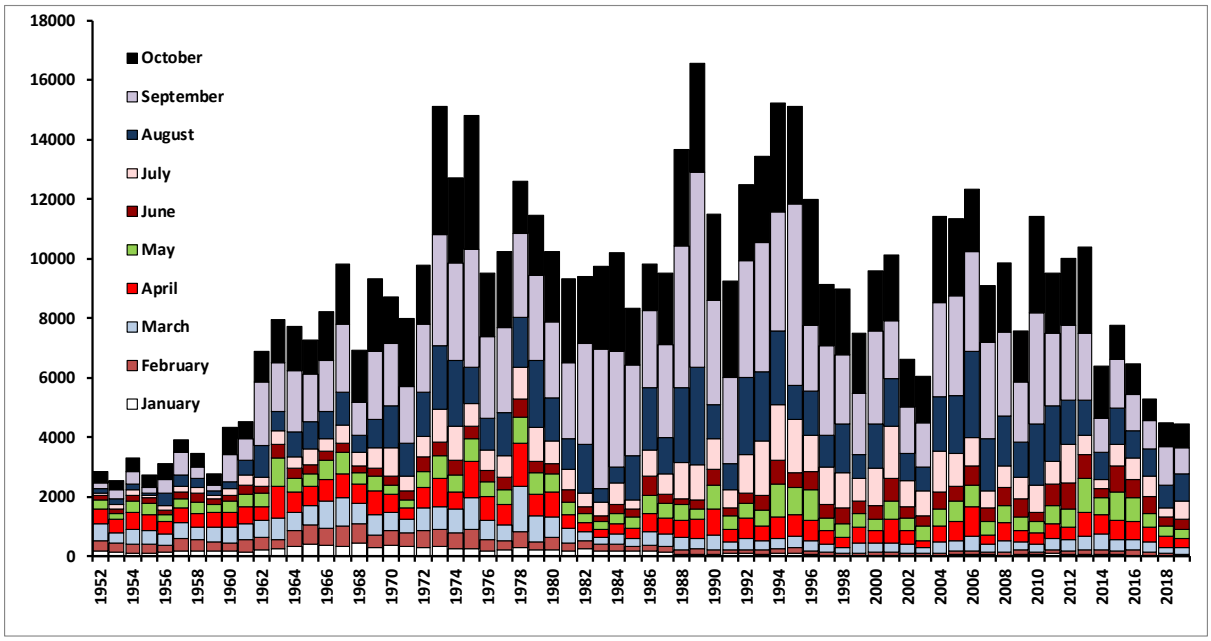
	GENERAL	NASF(UK)	TOTAL
	£	£	£
At 1 January 2018	83,434	-	83,434
Provision in Year	-	-	-
	83,434	-	83,434
Expenditure in Year	-	-	-
At 31 December 2018	83,434	-	83,434

6 GENERAL FUND

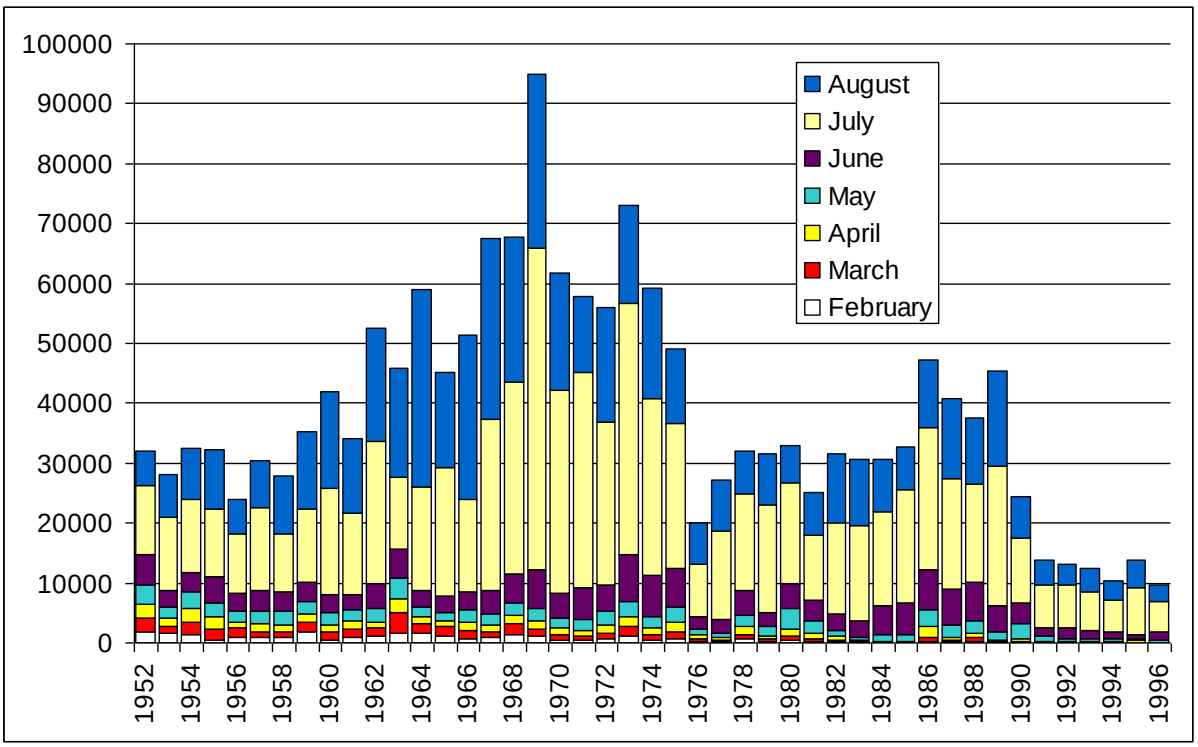
	2018	2017
	£	£
At 1 January 2018	396,039	363,097
Deficit for year	(619)	32,942
At 31 December 2018	395,420	396,039

7 CAPITAL COMMITMENT

There were no capital commitments as at 31st December 2018.



Monthly angling catch for the Tay District 1952 – 2019 (including released fish). The 1952 – 2010 data used in this graph are Crown copyright, used with the permission of Marine Scotland Science, Aberdeen. Marine Scotland is not responsible for interpretation of these data by third parties. 2011 to 2018 data were collected by the Board and 2019 is based on a preliminary analysis of www.fishtay.co.uk catches.



Monthly net and coble catch, Tay District 1952 – 1996 (netting largely ceased in 1996). The data used in this graph are Crown copyright, used with the permission of Marine Scotland Science, Aberdeen. Marine Scotland is not responsible for interpretation of these data by third parties.

BOARD MEMBERS ATTENDANCE FOR 2018

	5 Feb.	17 April	12 June	7 Aug.	30 Oct.	20 Nov.	12 Dec.
I. McLaren	✓	✓	✓	✓	✓	✓	✓
Lord Mansfield	✓	-	✓	-	-		
A. Stewart	✓	-	✓	✓	✓	✓	✓
D. Godfrey	✓	✓	✓	✓	✓	✓	✓
M. Smith	✓	✓	✓	✓	✓	✓	✓
C. Mercer Nairne	✓	✓	✓	-	✓	✓	✓
S. Mannion	-	✓	✓	✓	✓	✓	✓
D. Brown	✓	-	-	-	-	✓	-
J. Perrett	✓	✓	✓	✓	✓	✓	✓
I. Young	✓	✓					
T. Monaghan	✓	-	✓	✓	✓	✓	-
R. Band	✓	✓	✓	-	✓	✓	-
C. O'Dea / J. Ross	✓	✓	✓	✓	-	✓	✓
A. Wallace				✓	✓	✓	-
S. Furniss						✓	✓

✓ Present - Apologised for non-attendance

ACKNOWLEDGEMENTS

The Tay District Salmon Fisheries Board wishes to acknowledge the following people, organisations and companies for their very kind assistance and support in 2018 and 2019.

All Proprietors within the Tay District
John Apthorp CBE
Andrew Graham-Stewart
All Honorary Bailiffs
All Ghillies and Boatmen
All Tay Board staff
The Tay Ghillies Association
The Tay Rivers Trust
The River Earn Improvement Association
Scottish Environment Protection Agency
The staff of Marine Scotland at:
Victoria Quay, Edinburgh
Freshwater Fisheries Laboratory, Pitlochry
Montrose Research Station
Fisheries Management Scotland
Rivers and Lochs Institute, UHI
Fishlegal
Scottish Natural Heritage
SSE plc
Police Scotland