Salmon Runs 2020/21 (M Webb)

Regional sea run salmon spawning and angler surveys were completed in June and provided to 15 July 2020 meeting of Council in reports by Hamish Stevens and Jayde Couper, respectively.

This report combines spawning population and angler harvest to provide an estimate of the returning salmon run size for each fishery and provides an historical context. The extreme May/June floods prevented spawning surveys being undertaken in all waters except the upper Rangitata, lower Waitaki and a few streams in the Ashburton Catchment surveyed before the floods.

This report serves two main functions. First, it maintains the database of information that contains all the relevant historical and current spawning and harvest records for the CSIFG sea run salmon fishery. This information is often requested by organisations with which we have close associations such as ECan, NIWA, Cawthron, Meridian Energy and other F&G Regions. Second, it documents release numbers, returns and survival of McKinnons hatchery-origin releases and their contribution to angler catch. This information addresses queries received from anglers and others on the value of hatchery supplementation.

**Ashburton**

Spawning: 1 redd in Bowyers Stream, 2 redds in Maori Lakes Outlet. Flood impacted - Butterick's Spring Creek, Taylor's Stream, Ashburton River mainstem.

Harvest: No salmon identified as taken during end-of-season email and telephone surveys. Fifty-five anglers were identified as fishing this river for salmon. River mouth was open apart from 25 days from 27 January to 20 February. Typically, the Ashburton mouth is blocked for 20 to 65 days per season.

Total run: Estimated to be 20 fish and typical of last 5 years. Between 2000 and 2015, average run size was about 150 salmon and between 1990 and 2000, about 250 salmon.

**Rangitata**

Spawning: Live fish counts – 369 fish total for Deep Stream and Deep Creek equated to approx. 397 catchment-wide (minimum). The last 3 years spawning counts have been the lowest since live spawners counts began in 1993. Eleven redds were counted in Black Mountain Stream.

Harvest: Approximately 108 fish were caught by CSI and NC licence holders compared to 119 in 2019/20 and 328 in 2018/19. An estimated 15 fish or 14% of angler caught salmon were of hatchery origin. In the last three seasons catch of fin-clipped fish has averaged 13% of total catch. Average catch per salmon angler was 0.27 fish for the season compared to the 20-year average of 0.60 fish per salmon angler.

Total Run: About 527 fish. Runs have ranged in size from 527 to 5,080 (2007/08) and averaged 1,930 fish over the last 20 years

Hatchery: An estimated 26 McKinnons hatchery-origin fish returned to the Rangitata of which 15 were caught by anglers and 11 returned to the hatchery. No fin-clipped fish were found on the Deep Stream and Deep Creek spawning grounds during examination of 50 fish for the Winnemem Wintu project. The total run to McKinnons was 22 fish of which half were wild strays.

**Orari**

Spawning: No spawning counts were completed in the Opihi Catchment prior to flood interference. Based on angler catch of salmon at the Orari mouth and spawning activity in past years, it is estimated that approximately 30 salmon spawned in 2020/21.

Harvest: Five fish were caught at the river mouth, and none were identified as being fin clipped. In the last 20 seasons there have been extremes in angler success with 640 caught in 2013/14, 5 years that have returned no fish to the Orari angler and a further 5 years where the catch has been less than 20 fish.

Total Run: Unlikely to have been more than 50 fish.

**Opihi**

Spawning: The Waihi -Temuka was the only spawning survey undertaken prior to the May/June flood. Only 1 live salmon was observed. Based solely on angler harvest rate and fin clips recorded; it is assumed there was a spawning run of about 100 fish with 28% of hatchery origin.

Harvest: Eighteen salmon recorded for the season of which 5 (28%) were hatchery origin.

Run: About 100 fish

**Waitaki**

Spawning: Estimated 244 redds in the Catchment based on aerial survey of 35 side streams, four main-stem reaches and the Hakataramea River. Twenty redds were estimated to have been present in the Hakataramea River based on Waitaki Riparian Enhancement Society (WRES) trapping as part of the Winnemem Wintu project and washback of dead salmon from upstream that had not gone through the trap on their way upstream. Three females were taken for hatchery purposes. This year's catchment count was higher than the previous two year's counts and about half the average of 470 redds for the previous nine years.

Harvest: End-of-season surveys estimated 171 salmon caught by anglers compared to 85 in 19/20. No angler caught fin-clipped salmon were reported. Angler catch has averaged 430 fish over the last 20 seasons (range 85 to 1,110), with 9 counts being less than 300.

Run: The total run is estimated at about 820 fish. Run size records since 2000, would indicate a total run of around 3,000 salmon of which 500 to 800 are caught by anglers should be a goal for the Waitaki salmon fishery. Prior to 2000, an average run was 7,500 to 10,000 fish with angler catch of 2,000 to 3,500 fish.

**Regional Perspective**

CSIFG has been consistently recording angler catch from end-of-season surveys and spawning population sizes from live fish counts since 1993 for the Rangitata River. The size of the lower Waitaki River Catchment and variability of flows in the Hakataramea River has determined that spawning population estimates for this catchment rely on redds counts. Waitaki redd counts have been converted to a live fish equivalent using the ratio of fish to redds established in other salmon rivers, however it is unknown whether this ratio is correct for the Waitaki River. In addition, for the Waitaki it is only since 2011/12 that consistent annual redd counts have been completed to enable spawning fish numbers to be added to angler catch to produce a run size estimate.

The appearance of hatchery-origin adult salmon in the anglers bag first occurred in 2008/09 for Rangitata, Orari and Opihi anglers and from 2013/14 for Waitaki anglers. The marking of hatchery-origin juveniles by clipping the adipose fin enables anglers to identify these fish when they are caught as returning adults. On end-of-season harvest surveys anglers are asked how many fin-clipped fish they caught to enable a whole-season estimate of hatchery-origin returns to be calculated.

**Table 1. A**ngler catch of sea-run wild salmon in CSI Region rivers and total for the Region for fishing seasons from 1993/94 to 2020/21 and estimated catch of hatchery-origin salmon from 2008/09 in the Rangitata, Orari and Opihi rivers and from 2013/14 for the Waitaki River.

| | Wild salmon | | | | | | Hatchery Origin |
|---|---|---|---|---|---|---|---|
| Season | Ashburton | Rangitata | Orari | Opihi | Waitaki | Total | Rangi + Orari + Opihi Hatchery fish (Waitaki) |
| 93/94 | 216 | 2,628 | 54 | 810 | 3,420 | 7,128 | |
| 94/95 | 28 | 2,497 | 97 | 662 | 2,261 | 5,545 | |
| 95/96 | 271 | 4,483 | 57 | 760 | 2,217 | 7,788 | |
| 96/97 | 105 | 4,890 | 5 | 178 | 3,135 | 8,313 | |
| 97/98 | 0 | 1,430 | 22 | 120 | 2,306 | 3,878 | |
| 98/99 | 62 | 2,706 | 25 | 481 | 1,903 | 5,177 | |
| 99/00 | 60 | 1,228 | 141 | 390 | 1,143 | 2,962 | |
| 00/01 | 21 | 247 | 0 | 87 | 500 | 855 | |
| 01/02 | 9 | 152 | 165 | 171 | 623 | 1,120 | |
| 02/03 | 0 | 449 | 49 | 28 | 807 | 1,333 | |
| 03/04 | 0 | 367 | 0 | 230 | 1,108 | 1,705 | |
| 04/05 | 11 | 533 | 70 | 1,600 | 611 | 2,825 | |
| 05/06 | 11 | 216 | 0 | 55 | 240 | 522 | |
| 06/07 | 23 | 1,163 | 0 | 248 | 576 | 2,010 | |
| 07/08 | 60 | 1,389 | 0 | 425 | 686 | 2,560 | |
| 08/09 | 24 | 994 | 27 | 277 | 327 | 1,649 | 490 |
| 09/10 | 25 | 512 | 32 | 197 | 353 | 1,119 | 232 |
| 10/11 | 19 | 483 | 23 | 225 | 314 | 1,064 | 374 |
| 11/12 | 21 | 740 | 177 | 252 | 715 | 1,905 | 419 |
| 12/13 | 37 | 1,229 | 94 | 665 | 811 | 2,836 | 178 |
| 13/14 | 41 | 812 | 371 | 408 | 280 | 1,912 | 706 (5) |
| 14/15 | 6 | 914 | 86 | 28 | 222 | 1,256 | 180 (2) |
| 15/16 | 30 | 338 | 15 | 25 | 232 | 640 | 84 (3) |
| 16/17 | 6 | 293 | 22 | 15 | 115 | 451 | 46 (6) |
| 17/18 | 6 | 136 | 16 | 33 | 127 | 318 | 23 (6) |
| 18/19 | 6 | 267 | 5 | 35 | 183 | 496 | 62 (3) |
| 19/20 | 2 | 58 | 0 | 20 | 77 | 157 | 83 (8) |
| 20/21 | 0 | 93 | 5 | 13 | 171 | 287 | 20 (0) |

To date, the peak returns of McKinnons-origin salmon to Rangitata, Orari and Opihi anglers were from 2008/09 to 2014/15 when on average 370 hatchery-origin salmon were caught each season by anglers. In 2013/14 when 706 McKinnons-origin salmon were caught by anglers, hatchery fish made up 27% of all salmon caught in the Rangitata, 42% of salmon caught in the Orari and 26% of all salmon caught in the Opihi.

**Hatchery Supplementation**

Since 2007, McKinnons Hatchery on the lower Rangitata has been releasing between 50,000 and 95,000, one-year-old fin-clipped juvenile salmon to the Rangitata. The 2020/21 season was the thirteenth season when hatchery-origin returning adult fish supplemented angler catch.

In the 2020/21 season, 20 McKinnons-origin salmon were caught by anglers in the Rangitata (15), Orari (0) and Opihi (5). A further 28 were estimated to have spawned in the wild in the Opihi Catchment based on the proportion of fin-clipped fish in the angler catch and the total spawning population size for that river. A further 11 McKinnons-origin salmon returned to McKinnons Hatchery (Table 2). Overall, McKinnons-origin salmon totalled 59 fish or 8.7% of the 680 returning salmon to the Rangitata, Opihi and Orari rivers in the 2020/21 season.

**Table 2**. Number of wild and hatchery-origin salmon returning to the Rangitata, Orari and Opihi rivers that were caught by anglers, or spawned in those rivers, or returned to McKinnons Hatchery for the 2008/09 to 2020/21 seasons.

| | | Hatchery Origin | | | | | Wild Origin | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| River | Season | Angler caught | Spawned in wild | Hatchery return | Total | | Angler caught | Spawned in wild | Hatchery return | Total |
| **Rangitata** | 08/09 | 240 | 39 | 650 | 929 | | 994 | 2,714 | 0 | 3,708 |
| | 09/10 | 68 | 2 | 314 | 384 | | 512 | 901 | 0 | 1,413 |
| | 10/11 | 240 | 33 | 774 | 1,047 | | 483 | 905 | 31 | 1,419 |
| | 11/12 | 237 | 42 | 731 | 1,010 | | 740 | 1,610 | 79 | 2,429 |
| | 12/13 | 68 | 61 | 408 | 537 | | 1,229 | 3,042 | 42 | 4,313 |
| | 13/14 | 294 | 18 | 344 | 656 | | 812 | 1,283 | 621 | 2,716 |
| | 14/15 | 161 | 24 | 64 | 249 | | 914 | 1,666 | 346 | 2,926 |
| | 15/16 | 76 | 15 | 37 | 128 | | 338 | 1,055 | 146 | 1,539 |
| | 16/17 | 30 | 7 | 28 | 65 | | 293 | 498 | 42 | 833 |
| | 17/18 | 23 | 0 | 0 | 23 | | 136 | 573 | 0 | 709 |
| | 18/19 | 60 | 0 | 18 | 78 | | 267 | 403 | 0 | 670 |
| | 19/20 | 62 | 0 | 25 | 86 | | 58 | 437 | 105 | 600 |
| | 20/21 | 15 | 0 | 11 | 26 | | 93 | 397 | 11 | 501 |
| | | | | | | | | | | |
| **Orari** | 08/09 | 28 | 72 | | 100 | | 27 | 48 | | 75 |
| | 09/10 | 28 | 90 | | 118 | | 32 | 60 | | 92 |
| | 10/11 | 70 | 62 | | 132 | | 23 | 41 | | 64 |
| | 11/12 | 29 | 49 | | 78 | | 177 | 51 | | 228 |
| | 12/13 | 13 | 24 | | 37 | | 94 | 176 | | 270 |
| | 13/14 | 270 | 350 | | 620 | | 371 | 150 | | 521 |
| | 14/15 | 20 | 4 | | 24 | | 86 | 12 | | 98 |
| | 15/16 | 0 | 0 | | 0 | | 15 | 15 | | 30 |
| | 16/17 | 4 | 7 | | 11 | | 22 | 40 | | 62 |
| | 17/18 | 0 | 0 | | 0 | | 16 | 50 | | 66 |
| | 18/19 | 0 | 0 | | 0 | | 5 | 35 | | 40 |
| | 19/20 | 13 | 35 | | 48 | | 0 | 0 | | 0 |
| | 20/21 | 0 | 0 | | 0 | | 5 | 30 | | 35 |
| | | | | | | | | | | |
| **Opihi** | 08/09 | 221 | 25 | | 246 | | 277 | 525 | | 802 |
| | 09/10 | 137 | 30 | | 167 | | 197 | 670 | | 867 |
| | 10/11 | 63 | 32 | | 95 | | 225 | 668 | | 893 |
| | 11/12 | 104 | 27 | | 131 | | 252 | 573 | | 825 |
| | 12/13 | 13 | 9 | | 22 | | 665 | 591 | | 1,256 |
| | 13/14 | 142 | 23 | | 165 | | 408 | 477 | | 885 |
| | 14/15 | 10 | 30 | | 40 | | 28 | 70 | | 98 |
| | 15/16 | 8 | 24 | | 32 | | 25 | 76 | | 101 |
| | 16/17 | 12 | 2 | | 14 | | 15 | 148 | | 163 |
| | 17/18 | 0 | 0 | | 0 | | 33 | 100 | | 133 |
| | 18/19 | 2 | 4 | | 6 | | 35 | 71 | | 106 |
| | 19/20 | 8 | 57 | | 65 | | 20 | 143 | | 163 |
| | 20/21 | 5 | 28 | | 33 | | 13 | 72 | | 85 |
| | | | | | | | | | | |
| **All rivers** | 08/09 | 489 | 136 | 650 | **1,275** | | 1,298 | 3,287 | 0 | **4,585** |
| | 09/10 | 233 | 122 | 389 | **669** | | 741 | 1,631 | 0 | **2,372** |
| | 10/11 | 373 | 127 | 774 | **1,274** | | 731 | 1,614 | 31 | **2,376** |
| | 11/12 | 419 | 118 | 731 | **1,268** | | 1,169 | 2,234 | 79 | **3,482** |
| | 12/13 | 94 | 94 | 408 | **596** | | 1,974 | 3,809 | 42 | **5,825** |
| | 13/14 | 706 | 391 | 344 | **1,441** | | 1,593 | 1,910 | 621 | **4,124** |
| | 14/15 | 191 | 58 | 64 | **313** | | 1,092 | 1,748 | 346 | **3,186** |
| | 15/16 | 84 | 39 | 37 | **160** | | 377 | 1,146 | 146 | **1,669** |
| | 16/17 | 46 | 16 | 28 | **90** | | 330 | 686 | 42 | **1,058** |
| | 17/18 | 23 | 0 | 0 | **23** | | 185 | 723 | 0 | **908** |
| | 18/19 | 62 | 4 | 18 | **84** | | 308 | 509 | 0 | **817** |
| | 19/20 | 82 | 92 | 25 | **199** | | 78 | 580 | 105 | **763** |
| | 20/21 | 20 | 28 | 11 | **59** | | 111 | 499 | 11 | **621** |

The age composition of returning hatchery-origin salmon has been determined from length-frequency analysis of angler-caught and hatchery-trapped salmon. The frequency with which certain sized (length) salmon occur in angler and hatchery returns can be used to identify age classes of salmon.

The proportions of each release that were fin clipped are factored into returns for the 2013 to 2015, and 2017 brood years. Approximately 50% of the 2013 and 2014 brood years were fin clipped, and approximately 60% and 37% of the 2015 and 2017 brood years respectively were fin clipped. Age class returns, and fin-clip rates are essential information for estimating overall return (survival) for each release of juvenile fish from McKinnons Hatchery (Table 3).

**Table 3.** Brood year, year of release, age at return and overall return rate as a percentage of the total number of fin-clipped and non-fin-clipped juvenile salmon released from McKinnons Hatchery. For cohorts yet to return the season of expected return is shown.

| Brood year | Number released | Date of release | % Fin-clipped | No. return $1^+$ | No. return $2^+$ | No. return $3^+$ | Total return | Percent return |
|---|---|---|---|---|---|---|---|---|
| 2006 | 55,000 | July 07 | 100 | 0 | 1,253 | 183 | 1456 | 2.64 |
| 2007 | 72,000 | July 08 | 100 | 22 | 390 | 89 | 544 | 0.75 |
| 2008 | 52,000 | July 09 | 100 | 96 | 836 | 7 | 951 | 1.82 |
| 2009 | 65,000 | July 10 | 100 | 349 | 1,072 | 8 | 1,429 | 2.20 |
| 2010 | 70,000 | July 11 | 53.7 | 189 | 636 | 21 | 846 | 1.21 |
| 2011 | 95,000 | July 12 | 47.4 | 36 | 1,400 | 5 | 1,441 | 1.51 |
| 2012 | 63,000 | July 13 | 68.25 | 20 | 292 | 5 | 317 | 0.50 |
| 2013 | 64,000 | June 14 | 50 | 5 | 140 | 5 | 150 | 0.23 |
| 2014 | 35,000 | Jun 15 | 100 | 15 | 58 | 2 | 75 | 0.21 |
| 2015 | 65,000 | June 16 | 60 | 27 | 21 | 42 | 100 | 0.15 |
| 2016 | 68,000 | Jun/Jul 17 | 0 | - | - | - | - | - |
| 2017 | 55,000 | July 18 | 37 | 42 | 200 | 3 | 245 | 0.45 |
| 2018 | 0 | - | - | - | - | - | - | - |
| 2019 | 7,500 | July 20 | 100 | 8 | 2021/22 | 2022/23 | 8+ | |
| 2020 | 61,100 | Jan/Jul 21 | 100 | 2021/22 | 2022/23 | 2023/24 | | |

To date there have been eleven hatchery releases that have run their full life cycle. The 2006 to 2017 broods have completed return out to $3^+$ (almost four years old) and produced a range of returns from 0.15% to 2.64% and averaged 1.06%. The last five cohorts to complete their return have averaged 0.3% survival equivalent to 3 adult fish returning for every 1,000 juveniles released. This return rate is similar to the 0.35% average reported by NIWA for the 50 million coded-wire nose-tagged salmon released in their programmes in the 1970s and 80s.

**Regulation Change and Impact on Harvest**

Between 1993/94 and 2020/21 there were four periods when different fishing regulations applied. Two of these periods lasted only one season each and were the two most recent seasons. Prior to that the 13 seasons between 1993/94 and 2005/06 had consistent regulations until the October to March season was implemented in 2006/07 and the shortened season remained in place for the next 13 seasons, until 2019/20.

The closure of the April season from 2006/07 was introduced to reduce harvest in response to a falling salmon population that became critical from around 2000 onwards. Was the April closure successful?

The extreme variability in annual angler catch regardless of the regulations in place is very likely to mask any impacts of the April closure (Table 4). This is particularly true for the Rangitata River where the April closure was predicted to result in a 5% reduction in harvest when it was proposed in 2006. In this river there can be up to 100% changes in harvest rate from one year to the next. For example, the harvest rate in 2002/03 was 40.5% of the run, the next season the harvest rate was only 16.4% - a reduction of more than 50% (Table 4). Despite this annual variability, taking a long-term view of the average harvest rate across the two, thirteen-year periods provides some positive feedback that the April closure may have been successful, even though there would be no statistical proof for that. Across the 13 seasons prior to introduction of the April closure the average Rangitata harvest rate was 33.6% and across the 13 seasons after introduction of the April closure the average harvest rate was 30.5%.

The salmon fishery that was most affected by the April closure was the Waitaki. In proposing the closure in 2006 it was estimated that it would reduce Waitaki salmon harvest by 28%. Post-2006 monitoring indicated the reduction may have been nearer to 37%. This was a significant imposition on Waitaki anglers and much less on others. Unfortunately, the absence of catchment-wide spawning surveys for the Waitaki prior to 2006 prevents a comparison of pre- and post-2006 average harvest rates that were available for the Rangitata. The 2006/07 to 2018/19 average harvest rate for the Waitaki was estimated to be 18.8% with an annual range from 6.3% to 30.2% (Table 4).

In 2019/20 the salmon daily bag limit was reduced from two to one, the April closure was retained, and October and November were closed to salmon fishing. There was a consistent reduction in harvest in the Rangitata and Waitaki in the 2019/20 season, while the following season, 2020/21, both fisheries showed significant and almost identical increases in harvest rates to about 21% (Table 4). These changes in harvest rates cannot be wholly attributed to the change in harvest regulations for those seasons. The only regulation change from 2019/20 was that October and November were reopened in 2020/21. Neither of these months are important salmon fishing months and on their own would not explain a doubling of the harvest rate from the season before.

**This is a very clear example of the difficulty in attempting to identify a population response to a short-term management action when there is naturally high and unpredictable population variability, the causes of which are unknown.**

**Table 4. S**ea-run wild salmon angler catch, total run and proportion of run taken by anglers per season in the Rangitata and Waitaki rivers for fishing seasons from 1993/94 to 2020/21 and average catch rate for periods when angling regulations were consistent. Regulation Category "A" had a season from October to April, and a two-salmon daily bag limit and operated from 1993/94 to 2005/06. Regulation Category "B" had an October to March season and a two-salmon daily bag limit and operated from 2006/07 to 2018/19. Regulation Category "C" had a December to March season and a one-salmon daily bag limit and operated for 2019/20. Regulation Category "D" had an October to March season and a one-salmon daily bag limit and operated for 2020/21.

| | | Rangitata | | | | | Waitaki | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Season | Regulation Category | Angler wild catch | Total wild run | Catch rate (% of run) | Average catch rate per Regulation Category (%) | | Angler wild catch | Total wild run | Catch rate (% of run) | Average catch rate per Regulation Category (%) |
| 93/94 | A | 2,628 | 8,705 | 30.2 | | | 3,420 | | | |
| 94/95 | A | 2,497 | 6,438 | 38.8 | | | 2,261 | | | |
| 95/96 | A | 4,483 | 12,835 | 34.9 | | | 2,217 | | | |
| 96/97 | A | 4,890 | 12,357 | 39.6 | | | 3,135 | | | |
| 97/98 | A | 1,430 | 4,300 | 33.3 | | | 2,306 | | | |
| 98/99 | A | 2,706 | 5,942 | 45.5 | | | 1,903 | | | |
| 99/00 | A | 1,228 | 2,914 | 42.1 | | | 1,143 | | | |
| 00/01 | A | 247 | 744 | 33.2 | | | 500 | | | |
| 01/02 | A | 152 | 749 | 20.3 | | | 623 | | | |
| 02/03 | A | 449 | 1,108 | 40.5 | | | 807 | | | |
| 03/04 | A | 367 | 2,243 | 16.4 | | | 1,108 | | | |
| 04/05 | A | 533 | 1,668 | 32.0 | | | 611 | | | |
| 05/06 | A | 216 | 728 | 29.7 | 33.6 | | 240 | | | |
| 06/07 | B | 1,163 | 3,225 | 36.1 | | | 576 | 3,186 | 18.1 | |
| 07/08 | B | 1,389 | 5,079 | 27.3 | | | 686 | | | |
| 08/09 | B | 998 | 3,712 | 26.9 | | | 327 | | | |
| 09/10 | B | 506 | 1,407 | 36.0 | | | 353 | | | |
| 10/11 | B | 485 | 1,421 | 34.1 | | | 314 | | | |
| 11/12 | B | 740 | 2,429 | 30.5 | | | 715 | 2,380 | 30.0 | |
| 12/13 | B | 1,229 | 4,313 | 28.5 | | | 811 | 2,775 | 29.2 | |
| 13/14 | B | 812 | 2,716 | 29.9 | | | 280 | 1,893 | 14.8 | |
| 14/15 | B | 914 | 2,926 | 31.2 | | | 222 | 1,559 | 14.2 | |
| 15/16 | B | 338 | 1,539 | 22.0 | | | 232 | 1,853 | 12.5 | |
| 16/17 | B | 293 | 833 | 35.2 | | | 115 | 1,820 | 6.3 | |
| 17/18 | B | 136 | 709 | 19.2 | | | 127 | 904 | 14.0 | |
| 18/19 | B | 267 | 670 | 39.9 | 30.5 | | 183 | 606 | 30.2 | 18.8 |
| 19/20 | C | 58 | 600 | 9.7 | 9.7 | | 77 | 709 | 10.9 | 10.9 |
| 20/21 | D | 93 | 516 | 20.9 | 20.9 | | 171 | 815 | 21.0 | 21.0 |

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Runholders:
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Ricki Sinclair (Forest Creek)
Malcolm Prouting (Mesopotamia)

Spawning Surveys
Mid Canterbury Anglers Club

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