

## TFFC (Middelpunt) Fishery Report for the 2022/2023 Season

### Summary.

The fishing season at Middelpunt runs from June to May the following year and conditions for the last two seasons have been favourable for a trout fishery. This is due to rainfall recorded in the calendar years of 2021 and 2022 which measured 1062 ml and 1207 ml respectively, well above the annual average of approximately 800 ml. Hence all dams have been full or nearly full for two years and water temperatures have not been excessively high. In the first part of 2023 the autumn rains were good and thus this winter all our dams remain full.

A total of 1922 rainbows and 130 browns were stocked during the 2022/23 season. In the same period 322 rainbows were killed and 1050 released and for the browns 9 were killed and 110 released. Also, in the winter of 2022 rainbows numbering 250 and averaging 80 g in weight were placed in Dam 3 and 455 browns averaging about 150 g were placed in Dams 1, 2 and 3. It is difficult to judge whether this stocking of large fingerlings was of significant benefit in the longer term or whether most were lost due to predation which has become a major and increasing problem.

The recapture rate for rainbows was highest in Dams 1 and 2 and lowest in Dams 4 and 6. What is concerning is that despite favourable conditions in the last 2 years most of the catch comprises primarily of fish stocked during the year although for the last 10 years about 1000 fish are released by anglers every year and the majority of these are the younger, smaller fish. When restocking commences each year in mid to late March and therefore angling effort picks up few of these released fish appear to still be present. In fact, heavy stocking in the March to May period is required to repopulate all the dams.

There is always a need to supply a reasonable number of larger and even trophy sized fish to meet the requirements of the more discerning anglers. An attempt was made to convert Dam 1 to a trophy dam by imposing a no-kill rule, but this was halted as the results were unsatisfactory. Dams 1 and 3 are stocked more lightly per hectare to encourage faster growth but even this strategy has not been that successful. Also, we need to explore whether our fish are growing fast enough in our waters now. Several well-known flyfishing destinations in our area have resorted to stocking trophy sized fish which probably meets a 'put and take' demand but these older fish adapt poorly and are often very fin damaged.

Regarding dam management grass carp stocked in Dams 1 and 2 have at last started to clear excessive weed and this has improved access to anglers. Draining of Dam 4 was attempted in the 2022 winter to combat the excessive weed growth, but this was hindered by unseasonal winter rain and a blockage of the outlet pipe. Mechanical weeding was therefore required, and this practice will have to be repeated for the next 4 – 5 years until the grass carp are able to control the weed in this dam.

1. **Rainbows stocked vs. captured: 1994 – 2023.**

Season	No. stocked	No. killed	No. C&R <sup>1</sup>	% killed	% killed+C&R. <sup>1</sup>
1994/5	3206	1923	454	60,0	74,1
1995/6	2684	1730	373	64,5	78,3
1996/7	2523	1864	518	74,1	94,4
1997/8	2599	1784	454	64,3	93,8
1998/9	2518	1188	708	47,2	75,3
1999/00	3352	1394	715	41,6	62,9
2000/01	3035	1778	1360	58,6	103,4
2001/02	2746	1714	1477	62,4	116,2
2002/3	2455	1454	850	59,2	93,8
2003/4	2349	888	576	37,8	62,3
2004/5	2400	1236	1063	51,5	95,8
2005/6	2480	1019	1142	41,1	87,1
2006/7	1495	715	860	47,8	105,4
2007/8	1861	861	1159	46,3	108,5
2008/9	1498	767	992	51,2	117,4
2009/10	1926	705	1014	36,6	89,3
2010/11	1844	802	1209	43,5	109,1
2011/12	2066	709	1374	34,3	100,8
2012/13	2064	677	1362	32,8	98,8
2013/14	2000	657	1282	32,9	97,0
2014/15	2200	780	1375	35,5	98,0
2015/16	2520	496	893	19,7	55,1
2016/17	2308	435	847	18,8	55,5
2017/18	1964	432	891	22,0	67,4
2018/19	1634	357	946	21,8	79,7
2019/20 to March <sup>2</sup>	1238	292	597	23,6	71,8
2020/21 <sup>2</sup>	2074	356	837	17,2	57,5
2021/22	1940	340	1030	17,5	70,6
2022/23	1922 <sup>3</sup>	322	1050	16,8	71,4

<sup>1</sup> C&R = Catch & Release. Note that these 2 columns probably include fish that were released more than once.

<sup>2</sup> Season & fishing shortened by covid lockdown.

<sup>3</sup> Excludes the 250 x 80 g rainbows stocked in Dam 3.

2. All trout (rainbows + browns) stocked vs recapture rates: 1994 – 2023

Season	No stocked	No. killed	No. returned	No. killed + C&R <sup>1</sup>	% Killed + C&R <sup>1</sup>
1994/5	3206	1923	454	2377	74,1
1995/6	2684	1730	373	2103	78,3
1996/7	2523	1864	518	2382	94,1
1997/8	2599	1784	454	2238	86,1
1998/9	2590	1188	708	1896	100,5
1999/00	3403	1417	766	2183	86,7
2000/01	3235	1807	1454	3261	95,8
2001/2	2891	1766	1622	3388	117,2
2002/3	2625	1516	940	2456	93,6
2003/4	2349	901	594	1495	63,6
2004/5	2521	1260	1131	2391	94,8
2005/6	2455	1050	1231	2281	92,9
2006/7	1645	732	941	1673	101,7
2007/8	2064	879	1178	2057	99,7
2008/9	1713	789	1072	1861	108,6
2009/10	2080	726	1047	1773	85,2
2010/11	1928	810	1248	2058	106,7
2011/12	2122	716	1414	2130	100,4
2012/13	2104	685	1378	2063	98,1
2013/14	2000	657	1286	1933	96,7
2014/15	2200	780	1375	2155	97,8
2015/16	2520	496	893	1389	55,1
2016/17	2308	435	847	1299	56,3
2017/18	1964	436	938	1374	68,6
2018/19	1853	358	979	1377	74,3
2019/20 to March <sup>2</sup>	1470	298	670	968	65,6
2020/21 21 <sup>2</sup>	2288	366	982	1338	58,5
2021/22	2206	349	1104	1453	65,9
2022/23	2052 <sup>3</sup>	331	1160	1491	72,7

<sup>1</sup> C&R= Catch & Release. Note that these 2 columns probably include fish that were released more than once.

<sup>2</sup> Season & fishing shortened by covid lockdown.

<sup>3</sup> Excludes the 250 x 80 g rainbows placed in Dam 3 & the 455 x 150 g browns stocked in Dams 1, 2 & 3.

3. **Avg. length, CF & mass plus total mass killed (Rainbows): 1996 – 2023.**

Season	Avg. length	Avg. CF	Avg. mass killed	Total mass killed
1996/7	41,5 cm	122	852g	1638 kg
1997/8	41,1 cm	117	824g	1426 kg
1998/9	41,5 cm	119	815g	968 kg
1999/00	39,7 cm	118	735g	1024 kg
2000/01	41,1 cm	122	841g	1495 kg
2001/2	41,8 cm	123	901g	1544 kg
2002/3	41,0 cm	120	837g	1216 kg
2003/4	40,2 cm	124	806g	706 kg
2004/5	40,5 cm	129	852g	1053 kg
2005/6	40,9 cm	126	860g	876 kg
2006/7	42,0 cm	126	936g	669 kg
2007/8	41,1 cm	119	818g	704 kg
2008/9	41,1 cm	121	836g	641 kg
2009/10	40,9 cm	123	842g	594 kg
2010/11	43,0 cm	119	955g	766 kg
2011/12	41,0 cm	127	879g	623 kg
2012/13	40,0 cm	130	832g	563 kg
2013/14	41,4 cm	126	899g	591 kg
2014/15	41,5 cm	126	898g	700 kg
2015/16	42,0cm	122	896g	444 kg
2016/17	40,6cm	122	850g	370 kg
2017/18	41,3 cm	126	890g	384 kg
2018/19	41,2 cm	122	850g	303 kg
2019/20 to March <sup>1</sup>	42,5 cm	122	898g	262 kg
2020/21 <sup>1</sup>	42,0 cm	128	846g	301 kg
2021/22	42,3 cm	120	919g	312 kg
2022/23	41,4 cm	124	858g	276 kg

<sup>1</sup> Season & fishing shortened by covid lockdown.

4. **Five largest fish in 2022/3**

Mass	Angler	Month	Dam	Species	CF	Length cm
2500	Carter, J (family)	Dec	5	Rainbow	135	57
2250	Fourie, Jan	Sept	5	“	128	56
2000	Newman, Steve	Dec	5	“	142	52
1825	Erasmus, Lourens	Sept	5	“	130	52
1650	Knoetze, Franswa	Dec	3	“	111	53

Several trophy-sized fish were caught but these were not accurately weighed and therefore, could not be included in this section. In addition, a few trophy-sized fish were caught and released.

It is no coincidence that the 4 largest fish were taken from Dam 5 as during this period 5 cages containing 150 grass carp were anchored against the jetty in this dam. In addition to aquatic weed these fish were also fed trout pellets, some of which fell out of the cages and were fed on by waiting trout.

It must also be pointed out that the number of trophy sized fish taken in recent years is disappointing considering the number of anglers fishing and the size of the fishery which comprises 7 dams which have a surface area of at least 20 ha when full.

## 5. Breakdown of 2022/3 results by dam: No. Stocked vs. Killed & C & R (Rainbows only)

Dam	Stocked	% of Stocked	No. Killed	Killed as % Stocked	No. C&R <sup>1</sup>	C&R as % Stocked. <sup>1</sup>	C&R + Kill as % Stocked. <sup>1</sup>
1	250	13,5	38	14,6	269	103,5	118,1
2	168	8,7	48	28,6	103	61,3	89,9
3	476*	24,8	80	16,8	300	63,0	79,8
4	93	4,8	5	5,4	20	21,5	26,9
5	390	20,3	56	14,4	160	41,0	55,4
6	163	8,5	23	14,1	39	23,9	38,0
7	372	19,4	72	19,4	159	42,7	62,1
<b>Totals</b>	<b>1922**</b>	<b>100</b>	<b>322</b>	<b>16,8</b>	<b>1050</b>	<b>54,6</b>	<b>71,4</b>

<sup>1</sup> C&R= Catch & Release. Note that these 3 columns probably include fish that were released more than once.

<sup>2</sup> Excludes the 250 x 80 g fingerlings stocked July 2022.

## 6. Rainbow Trout stocking. 2022/3

During this season 1520 kg of catchable sized rainbow trout which ranged from 556g to 962g were stocked. The mean weight of stocked catchable rainbows for this period was therefore 791g compared to 858g which was the mean weight of the 322 rainbows killed during the season. As anglers tend to release the smaller fish and keep larger ones this would indicate that the bulk of the catch comprises rainbows stocked during the season with very few fish from previous year's stockings. It also raises the question of whether these catchable stocked fish are growing out at a satisfactory rate.

## 7. Brown trout results. 2022/3

Dam	Stocked	Killed	Returned
1	52*	1	63
2	14*	2	13
3	47*	2	29
5	11	2	3
6	6	2	2
	<b>130</b>	<b>9</b>	<b>110</b>

\*Excludes the 455 x 150 g fingerlings stocked in August 2022 which accounts for the high number returned in these 3 dams.

## 8. Number of members compared with number visits (a visit = a record form completed)

Year	1998/9	1999/0	2000/1	2001/2	2002/3	2003/4	2004/5	2005/6	2006/7	2007/8	2008/9	2009/10	2010/11
<b>No. Members</b>	90	91	91	95	95	95	100	100	100	110	110	110	110
<b>No. Visits</b>	500	542	617	623	603	439	479	476	388	453	432	394	446
Year	2011/2	2012/3	2013/4	2014/15	2015/6	2016/17	2017/18	2018/2019	2018/2019 to March	2019/20 to March	2020/21	2021/22	2022/23
<b>No. Members</b>	110	110	110	110	108	109	108	98	95	95	120	120	105
<b>No. Visits</b>	424	405	435	416	340	347	361	314	261	252	324	331	323

Despite a lower membership than at present number of visits reached a peak in 2000 to 2003 and has dropped back to a much lower level in the last two years. However, the duration of each visit might have increased.

9. Triploid grass carp stocking.

Dam	Oct 2015	March 2017	Feb 2018	Feb 2019	Jan 2020	Feb 2021	Mar 2023	Total
1		46	34	51	32	22	0	185
2	40		20		11	22	28	81
3	5	16		19	25	23	25	113
4							31	31
5		10	5	5	10	15	2	47
6			20	20	15	16	28	99
<b>Total</b>	<b>45</b>	<b>72</b>	<b>79</b>	<b>95</b>	<b>93</b>	<b>98</b>	<b>114</b>	<b>551</b>

In about 2009 we commenced with a project to remove grass carp from our dams, starting with Dams 1 and 2, as these fish were known to be carriers of anchor worm. Subsequently, this parasite almost disappeared from our waters, with only the occasional trout being found to be affected. As aquatic weed became a major problem in not only Dams 1 and 2 but all the other dams, except for Dam 7 which is overgrazed, we began restocking all our dams except 4 and 7 with triploid grass carp which we reared in cages to a size of 35cm to 42cm before stocking. In addition to Dam 7, No. 4 was not stocked as grass carp from Dam 3 tend to move down after heavy rains. In 2022 we noticed that weed growth in Dam 4 had become excessive and only one or two of these grass carp were seen probably due to the fact they had moved down to Dam 7. Attempts were made to drain Dam 4, but this was hampered by winter rains and early Sept rains and a blocked outlet pipe. This dam was then mechanically weeded and stocked with 31 young grass carp with one cage left over for another batch to be placed in this dam in early summer.

Due to slow growth, it probably takes at least 4 – 5 years after stocking before these fish have a significant impact on the weed. In addition, large numbers are lost due to predation in the initial years post stocking. In early 2023 it became evident that weed control by grass carp was succeeding in Dams 1 and 2. No further stocking was therefore carried out in Dam 1 in 2023. It is possible that Dams 2 and 6 may become overpopulated in a few years' time but these smaller dams are easier to net in dry years and fish can be moved to under-grazed dams. In our Middelpunt dams we estimate that we need about 15 to 20 grass carp of 5 kg or larger per hectare to control aquatic weed.

A matter which we must bear in mind is that these triploid fish which we have stocked since 2015 may not be as long lived as the original diploid stock introduced in the 1980's and a good number of these diploids are still in Dams 3, 5 and 7. Not only will these diploids eventually have to be replaced but so also the triploids.

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