

VANDERKLOOF DAM EXPERIMENTAL FISHERY PROGRESS REPORT AUGUST 2018 TO FEBRUARY 2019

Following the acquisition of the National permit from DEA and the Provincial exemption from DENC, experimental fishing was started by Rhodes University in August 2018 in accordance with the methodology and specifications outlined in the Fisheries Management Plan developed by the Advisory Group. There was a break in fishing activity from mid-December 2018 to mid-January 2019 while Rhodes University was closed for the holiday period.

Monthly progress reports will follow on from this as soon as I receive the catch data from Rhodes. Each subsequent month will be summarised and the overall totals tables will be updated accordingly.

TOTAL FISH NUMBERS AND WEIGHT (numbers in brackets indicate released fish)

August to Mid-November 2018

Species	August		September		October		November	
	Fish Totals		Fish Totals		Fish Totals		Fish Totals	
	N	W (kg)	N	W (kg)	N	W (kg)	N	W (kg)
Smallmouth yellowfish	846	295,9	162	61	414	169	308	136,2
Mudfish	1089	648,6	608	342,3	650	391,1	619	417,1
Catfish	68	301,7	26	144,7	23	22	49	161,2
Largemouth yellowfish	23(21)	8,9	5(4)	1,4	20(15)	11,1	6(6)	4,9
Moggel	1	1,1	2	1,6	4	3,9	1	0,886
Carp	0	0	0	0	0	0	1	3,7
Total	2027	1256,2	803	551	1111	597,1	984	723,986

Mid-November to Mid-December 2018

Species	November		December	
	Fish Totals		Fish Totals	
	N	W (kg)	N	W (kg)
Smallmouth yellowfish	248	110,3	210	90,4
Mudfish	593	398,6	311	185,5
Catfish	45	103,3	23	51,6
Largemouth yellowfish	3 (3)	1	11 (11)	6,2
Moggel	0	0	6	5,9
Carp	1	3,7	1	4
Total	890	616,9	562	343,6

Mid-January to Mid-February 2019

Species	January		February	
	Fish Totals		Fish Totals	
	N	W (kg)	N	W (kg)
Smallmouth yellowfish	251	87,8	86	39,5
Mudfish	335	196,3	159	107,5
Catfish	26	41,2	27	107,5
Largemouth yellowfish	5	4,1	3 (3)	2,8
Moggel	16	14,3	22	17,4
Carp	0	0	0	0
Total	633	343,7	297	274,7

TOTAL FISH NUMBERS AND WEIGHT PER GEAR-TYPE

August to Mid-November 2018

Species	Gillnets mesh sizes						Fyke nets		longlines	
	60mm		75mm		90mm		N	W (kg)	N	W (kg)
	N	W (kg)	N	W (kg)	N	W (kg)				
Smallmouth yellowfish	340	80,5	1157	409	230	171,6	3	0,9	0	0
Mudfish	188	48	1096	478,5	1664	1265,1	18	7,5	0	0
Catfish	0	0	2	8,1	45	44,1	2	3,4	117	574,1
Largemouth yellowfish	23	4,2	16	6,1	14	12,1	0	0	1	3,8
Moggel	0	0	0	0	8	7,4	0	0	0	0
Carp	0	0	0	0	1	3,7	0	0	0	0
Total	551	132,7	2271	901,7	1962	1504,1	23	11,7	118	577,9

Mid-November to Mid-December 2018

Species	Gillnets mesh sizes						Fyke nets		longlines	
	60mm		75mm		90mm		N	W (kg)	N	W (kg)
	N	W (kg)	N	W (kg)	N	W (kg)				
Smallmouth yellowfish	189	46,5	150	58,4	119	95,9	0	0	0	0
Mudfish	85	21,1	269	129,5	550	433,4	0	0	0	0
Catfish	0	0	0	0	30	27,8	0	0	38	127
Largemouth yellowfish	2	0,3	9	2,7	3	4,3	0	0	0	0
Moggel	0	0	0	0	6	5,9	0	0	0	0
Carp	0	0	0	0	2	7,8	0	0	0	0
Total	276	67,8	428	190,6	710	575	0	0	38	127

Mid-January to Mid-February 2019

Species	Gillnets mesh sizes						Fyke nets		longlines	
	60mm		75mm		90mm		N	W (kg)	N	W (kg)
	N	W (kg)	N	W (kg)	N	W (kg)				
Smallmouth yellowfish	161	36,2	105	39,9	71	51,2	0	0	0	0
Mudfish	87	21,4	39	17,2	368	265,2	0	0	0	0
Catfish	0	0	1	0,344	25	21,8	0	0	27	126,6
Largemouth yellowfish	0	0	0	0	8	6,9	0	0	0	0
Moggel	0	0	0	0	38	31,7	0	0	0	0
Carp	0	0	0	0	0	0	0	0	0	0
Total	248	57,6	145	57,4	510	376,8	0	0	27	126,6

OVERALL TOTALS (AUGUST 2018 TO MID-FEBRUARY 2019)

Total numbers and weight (number in brackets indicates released fish)

Species	N	W (kg)
Smallmouth yellowfish	2525	990,2
Mudfish	4364	2686,8
Catfish	287	933,1
Largemouth yellowfish	76(68)	40,5
Moggel	52	45
Carp	3	11,5
Total	7307	4707,1

Total numbers and weight per gear-type

Species	Gillnets mesh sizes						Fyke nets		longlines	
	60mm		75mm		90mm		N	W (kg)	N	W (kg)
	N	W (kg)	N	W (kg)	N	W (kg)				
Smallmouth yellowfish	690	163,2	1412	507,3	420	318,7	3	0,9	0	0
Mudfish	360	90,5	1404	625,2	2582	1963,7	18	7,5	0	0
Catfish	0	0	3	8,4	100	93,7	2	3,4	182	827,7
Largemouth yellowfish	25	4,5	25	8,8	25	23,3	0	0	1	3,8
Moggel	0	0	0	0	52	45	0	0	0	0
Carp	0	0	0	0	3	11,5	0	0	0	0
Total	1075	258,2	2844	1149,7	3182	2455,9	23	11,8	183	831,5

COMMENT

Mudfish is by far the most dominant catch both in terms of numbers (4 364) and weight (2 686 kg) followed by smallmouth yellowfish (2 525 and 990 kg). Since August 2018, a total of 76 largemouth

yellowfish have been caught, of which 68 have been released (post release mortality is not known but one must assume there will be some). Moggel and carp also make up a very small proportion of the catch. Gillnets, as expected, are the most effective fishing gear for all species except sharptooth catfish (barbel), which are predominantly caught by longline. The larger mesh sizes of the gillnets are most effective, with 75 mm mesh accounting for the most smallmouth yellowfish and the 90 mm mesh catching the most mudfish. Largemouth yellowfish are caught in all gillnet mesh sizes but average size (and weight) increases with mesh size.

At this stage there is little point trying to compare monthly catches as the data set is small. Only after two years of data collection will it be possible and feasible to conduct any kind of comparative analyses.

After six months of fishing, 7 307 fish have been caught with a total weight of 4.7 tons. Although fishing intensity will likely be higher in a fully operational fishery, these numbers are well below the target of 5 tons/month identified in the FMP in order to make a fishery financially viable.

Aidan Wood

A handwritten signature in black ink, appearing to read 'Aidan Wood', with a horizontal line underneath.

SACRAA Environmental Officer