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ON THE PERIODICITY  
OF  
SALMON REPRODUCTION IN THE NORTHERN BALTIC AREA  
AND ITS CAUSES  
BY  
T. H. JÄRVI

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EN COMMISSION CHEZ  
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**Table 4 A.** Division of Salmon into Life-Cycle Classes according to Scale Samples (l. c. Table 12, p. 40). **Tornio River** (Kiviranta Weir).

Age-Class	Life-Cycle Class	Number									
		1936	1937	1938	1939	1940	1941	1942	1943	1944	1936-1944
3	2.1+	10	3	9	111	14	5	—	1	17	170
	3+	—	—	—	—	—	—	1	—	—	1
4	2.2+	4	2	1	2	78	16	44	6	60	231
	3.1+	163	55	339	1342	298	109	18	106	359	2789
5	2.3	9	2	7	2	20	41	150	73	17	321
	3.2+	699	33	61	216	1194	201	595	109	1707	4815
6	4.1+	54	9	51	189	16	11	4	14	21	369
	2.4	7	—	1	2	1	—	19	40	102	172
7	3.3	704	91	30	89	410	388	1150	452	4514	
	4.2+	115	19	4	16	212	22	51	8	43	490
8	5.1+	—	—	—	2	—	—	1	—	—	4
	2.5	1	—	—	—	—	—	—	—	—	1
9	3.4	120	29	9	17	69	22	87	145	656	1154
	4.3	154	36	9	1	70	27	84	53	8	442
10	5.2+	2	—	—	—	2	—	—	—	—	4
	3.5	18	2	—	—	2	3	—	1	—	26
11	4.4	39	12	2	1	5	4	3	6	8	80
	5.3	3	2	—	—	1	—	—	—	—	6
12	4.5	—	—	—	1	—	—	—	—	—	1
	5.4	—	2	—	—	—	—	—	—	—	2
Total ...		2102	297	523	1991	2392	845	2206	1768	3450	15574
Previously spawned:											
once		140	39	14	27	96	52	40	41	36	485
twice		19	5	3	7	9	2	2	3	—	50
four times		—	—	1	—	—	—	—	—	—	1
Total ...		159	44	18	34	105	54	42	44	36	536
Life-Cycle Group:											
A.1+		227	67	399	1644	328	126	23	122	397	3333
A.2+		820	54	66	234	1486	239	690	123	1810	5522
A.3(+)		870	131	46	92	501	451	1384	1331	477	5283
A.4		166	43	12	20	75	26	109	191	766	1408
A.5		19	2	—	1	2	3	—	1	—	28
G		159	44	18	34	105	54	42	44	36	536
Total ...		2261	341	541	2025	2497	899	2248	1812	3486	16110

Year	Percentage of group A.3 in total	Year	Percentage of group A.3 in total	Year	Percentage of group A.3 in total
1936	49.1	1939	14.6	1942	60.1
1937	54.1	1940	26.6	1943	72.7
1938	25.2	1941	56.9	1944	14.1

The notable decrease in the importance of group A.3 manifested itself in the years 1938—1940 and 1944. During the last-mentioned years very young, and at the same time small, salmon belonging to the life-cycle group A.1+ increased in numbers: in 1939 they formed 37.2% of the total and in 1939 58.8%. In 1940 A.2+ was the chief group (54.4%

of the total) and in 1944 the chief groups were A.2+ (42.4%) and A.4 (33.5%).

Thus the conditions prevailing in the stock of salmon of the Bothnian Bay area during the years 1938—1940 and 1944 were exceptional; they were due on the one hand to the paucity of the year-classes 1931/1932, 1932/1933 and 1937/1938, and on the other hand to the relative abundance of the year-classes 1933/1934, 1934/1935 and 1938/1939. The last-mentioned year-classes gave their share to the catch already at the stages A.1+ and A.2+.

The change in importance of the life-cycle group A.3 may be caused to some extent by the fact that samples from the Tornio River formed the main part

**Table 4 B.** Division of Salmon into Life-Cycle Classes according to Scale Samples (l. c. Table 12, p. 40). **Tornio River** (Kiviranta Weir).

Age-Class	Life-Cycle Class	Percentage									
		1936	1937	1938	1939	1940	1941	1942	1943	1944	1936-1944
3	2.1+	0.4	0.9	1.7	5.5	0.6	0.6	—	0.1	0.5	1.1
	3+	—	—	—	—	—	—	0.04	—	—	
4	2.2+	0.2	0.6	0.2	0.1	3.1	1.8	1.9	0.8	1.3	1.3
	3.1+	7.2	16.1	62.6	66.3	11.9	12.1	0.8	5.8	10.3	
5	2.3	0.4	0.6	1.3	0.1	0.8	4.6	6.8	4.0	0.5	2.0
	3.2+	30.9	9.7	11.3	10.7	47.8	22.4	26.5	6.0	49.0	
6	4.1+	2.4	2.6	9.4	9.3	0.6	1.2	0.2	0.8	0.6	2.3
	2.4	0.3	—	0.2	0.1	0.05	—	0.8	2.2	2.9	
7	3.3	31.2	26.7	5.5	4.4	16.4	42.6	51.1	66.6	13.0	28.0
	4.2+	5.1	5.6	0.7	0.8	8.5	2.4	2.3	0.4	1.2	
8	5.1+	—	—	—	0.1	—	0.1	—	0.1	—	0.02
	2.5	0.1	—	—	—	—	—	—	—	—	
9	3.4	5.3	8.5	1.7	0.8	2.8	2.4	3.9	8.0	18.9	7.2
	4.3	6.8	10.5	1.7	0.04	2.8	3.0	3.7	2.9	0.2	
10	5.2+	0.1	—	—	—	0.1	—	—	—	—	0.02
	3.5	0.8	0.6	—	—	0.1	0.3	—	0.1	—	
11	4.4	1.7	3.5	0.4	0.04	0.2	0.5	0.1	0.3	0.2	0.5
	5.3	0.1	0.6	—	—	0.05	—	—	—	—	
12	4.5	—	—	—	0.04	—	—	—	—	—	0.01
	5.4	—	0.6	—	—	—	—	—	—	—	
Total ...		93.0	87.1	96.7	98.3	95.8	94.0	98.1	97.6	99.0	96.7
Previously spawned:											
once		6.2	11.4	2.6	1.3	3.8	5.8	1.8	2.3	1.0	3.0
twice		0.8	1.5	0.5	0.4	0.4	0.2	0.1	0.1	—	0.3
four times		—	—	0.2	—	—	—	—	—	—	0.01
Total ...		7.0	12.9	3.3	1.7	4.2	6.0	1.9	2.4	1.0	3.3
Life-Cycle Group:											
A.1+		10.0	19.6	73.7	81.2	13.1	14.0	1.0	6.7	11.4	20.7
A.2+		36.3	15.9	12.2	11.5	59.5	26.6	30.7	6.8	51.9	34.3
A.3(+)		38.5	38.4	8.5	4.5	20.1	50.2	61.6	73.5	13.7	32.8
A.4		7.4	12.6	2.3	1.0	3.0	2.9	4.8	10.5	22.0	8.7
A.5		0.8	0.6	—	0.1	0.1	0.3	—	0.1	—	0.2
G		7.0	12.9	3.3	1.7	4.2	6.0	1.9	2.4	1.0	3.3
Total ...		100	100	100	100	100	100	100	100	100	100

of the material collected during the years 1936—1944. And in the Tornio River the proportion of the group A.2+ since 1930 — when I started my collections — has always been greater than in any other material received. This group formed an absolute majority in 1931, when 56.7% of the salmon examined belonged to it (l. c., p. 40). In other years, viz., 1930, 1932—1935, the share of this group (A.2+) varied in the Tornio River between 23.0 and 42.0%. The life-cycle group A.3, on the other hand, attained in the same material during 1930—1935 a similar percentage only in the year 1934, 37.2%; in all the other years it was smaller.

For some reason unknown to the author the salmon seem to ascend the Tornio River generally at a younger

age than elsewhere in Finland. This applies to the years 1936—1944. During these years group A.3 has held a notable position only in 1941, 1942 and 1943 when the percentages were 50.2, 61.6 and 73.5% respectively. In the years 1936 and 1937 the share of this group was 38.5% (cf. table above).

Only one age-class, three-year-old fish of the life-cycle class 2.1+ is younger than those considered above. These fish are on their first return to the river and in 1936—1944 they numbered 429 or only 1.5% of the total.

Next we will deal with the older age-classes, those seven years of age and upwards.

The total number of seven-year-old salmon examined was 3931, or 13.5% of the total. Of these

III. The Material.

1. The Length, Weight and Number arranged according to the Life-Cycle Classes.

1. Tornio River: Kiviranta.

1986: 2261 Ind. (100 Ind. captured at the Sumisaari weir).

2.1+: 10 Ind. Av. 50.1 cm., 1.36 kg. cm.: 45, 46 (2), 47, 48, 50, 52, 55 (2), 57. kg.: 0.7, 1.0 (3), 1.1, 1.4, 1.7 (2), 2.0 (2).

3.1+: 163 Ind. Av. 51.5 cm., 1.33 kg. cm.: 43, 45 (7), 46 (8), 47 (8), 48 (15), 49 (10), 50 (23), 51 (11), 52 (13), 53 (11), 54 (8), 55 (8), 56 (6), 57 (4), 58 (8), 59 (6), 60 (5), 62. kg.: 0.6, 0.7 (3), 0.8 (4), 0.9 (8), 1.0 (47), 1.1 (8), 1.2 (15), 1.3 (15), 1.4 (8), 1.5 (16), 1.6 (3), 1.7 (6), 1.8, 1.9 (4), 2.0 (13), 2.1 (4), 2.2 (4), 2.3 (2), 2.4, 2.5.

4.1+: 54 Ind. Av. 53.2 cm., 1.53 kg. cm.: 43, 45 (2), 46, 48 (2), 49 (2), 50 (9), 51, 52 (5), 53 (6), 54 (4), 55 (8), 56 (2), 57, 58 (2), 59 (4), 60 (3), 61. kg.: 0.8, 1.0 (10), 1.1 (2), 1.2 (5), 1.3 (3), 1.4 (2), 1.5 (5), 1.6 (4), 1.7 (5), 1.8 (6), 1.9 (3), 2.0 (3), 2.1, 2.2, 2.4, 2.5, 2.7.

2.2+: 4 Ind. (2 ♂, 2 ♀). Av. 79.3 cm., 6.3 kg. cm.: 74, 79, 80, 84. — kg.: 6.0 (3), 7.0.

3.2+: 699 Ind. (136 ♂, 563 ♀). Av. 78.8 (♂♂: 80.7, ♀♀: 78.4) cm., 5.58 (♂♂: 6.1, ♀♀: 5.5) kg. cm.: 66 (2), 67 (3), 68 (2), 69 (7), 70 (36), 71 (22), 72 (15), 73 (38), 74 (20), 75 (43), 76 (29), 77 (15), 78 (62), 79 (52), 80 (90), 81 (58), 82 (48), 83 (48), 84 (26), 85 (36), 86 (15), 87 (11), 88 (2), 89 (6), 90 (7), 92 (3), 93, 94, 95. kg.: 3.0 (5), 3.5 (18), 4.0 (81), 4.5 (61), 5.0 (110), 5.5 (86), 6.0 (146), 6.5 (59), 7.0 (65), 7.5 (29), 8.0 (29), 8.5 (5), 9.0 (4), 9.5.

4.2+: 115 Ind. (12 ♂, 103 ♀). Av. 78.1 (♂♂: 79.9, ♀♀: 77.7) cm., 5.6 (♂♂: 5.6, ♀♀: 5.6) kg. cm.: 65, 68, 71 (2), 72 (4), 73 (7), 74 (2), 75 (10), 76 (3), 77 (7), 78 (10), 79 (10), 80 (9), 81 (14), 82 (18), 83 (6), 84 (3), 85 (6), 89 (2). kg.: 2.5, 3.5 (2), 4.0 (12), 4.5 (9), 5.0 (13), 5.5 (17), 6.0 (28), 6.5 (18), 7.0 (12), 7.5 (2), 8.0.

5.2+: 2 ♀: 83, 85 cm., 6.0, 7.5 kg.

2.3: 9 Ind. (4 ♂, 5 ♀). Av. 102.0 (♂♂: 105.7, ♀♀: 99.0) cm., 12.7 (♂♂: 13.3, ♀♀: 12.3) kg. cm.: 91, 97, 99, 100, 101, 102, 103, 106, 119. kg.: 10.0, 11.0, 12.0 (2), 13.0, 13.5 (2), 14.0, 15.5.

3.3: 704 Ind. (205 ♂, 499 ♀). Av. 99.3 (♂♂: 101.3, ♀♀: 98.5) cm., 11.7 (♂♂: 12.4, ♀♀: 11.2) kg.

Ind. = Individuals, Av. = Average.

cm.: 80, 82 (2), 83, 84, 85 (2), 86 (3), 87 (4), 88 (3), 89 (11), 90 (25), 91 (5), 92 (20), 93 (21), 94 (23), 95 (35), 96 (28), 97 (30), 98 (51), 99 (63), 100 (112), 101 (40), 102 (35), 103 (38), 104 (36), 105 (47), 106 (16), 107 (17), 108 (18), 109 (8), 110 (5), 111 (3), 112 (2), 113, 114 (2), 119. kg.: 6.0, 6.5 (2), 7.0 (8), 7.5 (7), 8.0 (23), 8.5 (12), 9.0 (43), 9.5 (20), 10.0 (60), 10.5 (27), 11.0 (89), 11.5 (48), 12.0 (101), 12.5 (32), 13.0 (81), 13.5 (25), 14.0 (53), 14.5 (16), 15.0 (26), 15. (15), 16.0 (12), 17.0, 18.0, 18.5.

4.3: 154 Ind. (44 ♂, 110 ♀). Av.: 99.7 (♂♂: 102.9; ♀♀: 98.5) cm., 11.8 (♂♂: 12.8, ♀♀: 11.4) kg. cm.: 87, 89, 90 (4), 91 (2), 92 (4), 93 (3), 94 (4), 95 (8), 96 (6), 97 (11), 98 (12), 99 (14), 100 (27), 101 (8), 102 (8), 103 (6), 104 (9), 105 (9), 106 (4), 107 (3), 108 (7), 109 (2), 110. kg.: 7.0, 7.5, 8.0 (3), 8.5 (2), 9.0 (12), 9.5 (2), 10.0 (13), 10.5 (10), 11.0 (28), 11.5 (4), 12.0 (18), 12.5 (6), 13.0 (17), 13.5 (8), 14.0 (11), 14.5 (4), 15.0 (7), 15.5 (2), 16.0 (4), 17.5.

5.3: 3 ♀: 101, 104, 107 cm., — 11.5, 13.5, 14.0 kg.

2.4: 7 Ind. (4 ♂, 3 ♀). Av.: 110.7 (♂♂: 111.0, ♀♀: 110.3) cm., 16.86 (♂♂: 16.75, ♀♀: 17.0) kg. cm.: 109 (3), 110 (2), 112, 116. kg.: 15.0, 15.5, 16.0, 17.0, 17.5, 18.0, 19.0.

3.4: 120 Ind. (93 ♂, 27 ♀). Av.: 112.5 (♂♂: 113.5, ♀♀: 110.0) cm., 17.0 (♂♂: 17.3, ♀♀: 16.2) kg. cm.: 106 (2), 107 (5), 108 (12), 110 (14), 111 (17), 112 (5), 113 (5), 114 (2), 115 (4), 116 (4), 117 (5), 118 (9), 119 (6), 120 (6), 121, 122. kg.: 11.5, 12.0, 13.0, 13.5, 14.0 (10), 14.5 (6), 15.0 (9), 15.5 (3), 16.0 (11), 16.5 (4), 17.0 (20), 17.5 (3), 18.0 (16), 18.5 (4), 19.0 (12), 19.5, 20.0 (9), 21.0 (5), 22.0 (3).

4.4: 39 Ind. (34 ♂, 5 ♀). Av.: 112.9 (♂♂: 113.2, ♀♀: 111.4) cm., 17.4 (♂♂: 17.5, ♀♀: 16.5) kg. cm.: 108 (2), 109 (3), 110 (8), 111 (2), 112 (7), 113, 114 (3), 115 (6), 116 (2), 118, 119 (2), 120 (2). kg.: 13.5, 14.0 (3), 14.5, 15.0, 16.0 (9), 16.5, 17.0 (4), 17.5 (2), 18.0 (7), 18.5, 19.0 (3), 20.0 (2), 21.0 (4).

2.5: 1 ♂: 123 cm., 20.0 kg.  
3.5: 2 ♂: 122, 123 cm., 21.0 and 21.5 kg.

Once spawned: 140 Ind.

5-year-olds:  
3.1+G1: 2 ♂: 65, 70 cm., 3.3, 3.5 kg.

6-year-olds:  
3.1+G1: 1 ♀: 88 cm., 8.0 kg.

7-year-olds:  
3.1+G2: 21 Ind. (16 ♂, 5 ♀). Av.: 98.6 (♂♂: 99.06, ♀♀: 97.0) cm., 11.8 (♂♂: 12.3, ♀♀: 10.2) kg. cm.: 90 (2), 93, 94, 96, 97 (2), 98 (3), 99 (3), 100 (2), 102 (2), 103, 104 (2), 107. kg.: 7.5, 8.0 (2), 9.0 (3), 10.0, 11.0, 12.0 (3), 13.0 (2), 13.5, 14.0 (4), 14.5, 15.0 (2).

3.2+G1: 25 Ind. (5 ♂, 20 ♀). Av.: 93.3 (♂♂: 90.8, ♀♀: 94.4) cm., 9.7 (♂♂: 9.1, ♀♀: 9.85) kg. cm.: 80, 84, 87 (2), 88, 90 (4), 91 (2), 93 (2), 96, 97 (2), 98 (2), 99 (3), 100, 101, 102 (2). kg.: 5.0, 7.0 (3), 7.5, 8.0 (5), 9.0 (2), 9.5, 10.0, 11.0 (2), 11.5 (2), 12.0 (4), 12.5, 13.0, 13.5.

3.3G1: 6 Ind. (1 ♂, 5 ♀). Av.: 102.0 (♂: 108.0, ♀♀: 100.8) cm., 12.6 (♂: 13.5, ♀♀: 12.4) kg. cm.: 96, 98 (2), 105, 107, 108. kg.: 8.5, 13.0 (2), 13.5 (2), 14.0.

8-year-olds:  
4.1+G2: 5 Ind. (5 ♂). Av.: 103.6 cm., 13.1 kg. cm.: 98, 99, 105, 107, 109. kg.: 10.0, 11.5, 14.0, 15.0 (2).

3.2+G2: 1 ♂: 117 cm., 17.0 kg.  
4.2+G1: 5 Ind. (2 ♂, 3 ♀). Av.: 94.8 (♂♂: 98.0, ♀♀: 92.7) cm., 9.8 (♂♂: 12.3, ♀♀: 8.2) kg. cm.: 78, 93, 94, 103, 106. kg.: 6.5, 8.0, 10.0, 11.0, 13.5.

3.3G1: 54 Ind. (10 ♂, 44 ♀). Av.: 103.9 (♂♂: 102.9, ♀♀: 104.1) cm., 13.4 (♂♂: 12.9, ♀♀: 13.5) kg. cm.: 85, 93, 95, 96 (2), 97, 98 (2), 99 (2), 100 (6), 101, 102 (4), 103 (5), 104, 105 (2), 106, 107 (4), 108 (8), 109 (5), 110 (4), 112 (2), 113. kg.: 8.0, 9.0, 9.5, 10.0, 10.5, 11.0 (6), 11.5 (4), 12.0 (4), 12.5 (2), 13.0 (5), 13.5, 14.0 (2), 14.5 (6), 15.0 (9), 15.5 (2), 16.0 (4), 16.5 (3), 18.0.

3.4G1: 5 Ind. (3 ♂, 2 ♀). Av.: 112.0 cm., 16.5 kg. cm.: 110 (2), 111, 113, 116. kg.: 13.0, 16.0, 17.0, 17.5, 19.0.

9-year-olds:  
4.3G1: 7 Ind. (3 ♂, 4 ♀). Av.: 103.1 (♂♂: 105.7, ♀♀: 101.3) cm., 14.0 (♂♂: 14.7, ♀♀: 13.5) kg. cm.: 84, 91, 102, 107, 112 (2), 114. kg.: 9.0, 10.0, 14.0, 15.0, 16.0 (2), 18.0.

3.4G1: 7 Ind. (4 ♂, 3 ♀). Av.: 116.1 (♂♂: 117.3, ♀♀: 114.7) cm., 18.4 (♂♂: 18.9, ♀♀: 17.7) kg. cm.: 110, 112, 115, 117 (2), 120, 122. kg.: 16.0, 17.0, 18.0, 18.5, 19.0 (2), 21.0.

Twice spawned: 19 Ind.

8-year-olds:  
3.2+G1G1: 1 ♂: 94 cm., 11.0 kg. — 1 ♀: 99 cm., 11.0 kg.

9-year-olds:  
3.2+G1G1: 4 Ind. ♂ 116 cm., 16.5 kg., ♀♀: 100, 104, 115 cm. — 1 ♀: 11.4, 16.0, 16.5 kg.

3.3G1G1: 2 ♀: 105, 106 cm., 13.0, 13.5 kg.

10-year-olds:  
4.2+G1G1: 1 ♂: 110 cm., 12.0 kg.

3.3G1G1: 8 Ind. (1 ♂, 7 ♀). Av.: 111.3 cm., 15.3 kg. cm.: 98, 104, 112, 113, 114, 115 (2), 120 (♂). kg.: 11.0, 14.0, 14.5, 15.0, 15.5, 17.0, 17.5, 18.5.

11-year-olds:  
4.3G1G1: 1 ♀: 102 cm., 11.0 kg.  
3.4G1G1: 1 ♂: 120 cm., 20.0 kg.

1987: 341 Ind.

2.1+: 3 Ind. Av.: 55.3 cm., 1.93 kg. cm.: 51, 53, 62. — kg.: 1.5, 1.6, 2.7.

3.1+: 55 Ind. Av.: 55.0 cm., 1.79 kg. cm.: 45, 46, 50 (3), 51 (7), 52 (3), 53 (5), 54 (7), 55 (5), 56 (4), 57, 58 (6), 59 (3), 60 (6), 61, 62, 63. kg.: 0.9, 1.2 (3), 1.3 (3), 1.4 (3), 1.5 (9), 1.6 (5), 1.7 (5), 1.8 (5), 2.0 (9), 2.2 (3), 2.3 (4), 2.4, 2.5 (2), 2.7, 2.9.

4.1+: 9 Ind. Av.: 55.0 cm., 1.82 kg. cm.: 51 (2), 53 (2), 55, 56, 58 (2), 60. kg.: 1.3 (2), 1.5 (2), 1.9, 2.1, 2.2 (2), 2.4.

2.2+: 1 ♂: 84 cm., 7.0 kg. — 1 ♀: 74 cm., 4.0 kg.  
3.2+: 33 Ind. (12 ♂, 21 ♀). Av.: 77.1 (♂♂: 80.5, ♀♀: 75.1) cm., 5.45 (♂♂: 5.99, ♀♀: 5.14) kg. cm.: 60, 65, 67, 70 (3), 71 (3), 73 (2), 75 (4), 76 (2), 77, 78, 79 (2), 80, 82, 83 (2), 84, 85 (2), 86, 87 (2), 88 (2). kg.: 2.9, 3.1, 3.4, 3.7, 4.0 (4), 4.4 (2), 4.7, 5.0 (2), 5.2, 5.3, 5.4, 5.5 (2), 5.8, 6.0 (3), 6.4, 6.5 (2), 6.7, 6.9, 7.0 (3), 7.5 (3).

4.2+: 19 Ind. (4 ♂, 15 ♀). Av.: 77.2 (♂♂: 76.5, ♀♀: 77.3) cm., 5.42 (♂♂: 5.53, ♀♀: 5.39) kg. cm.: 71 (2), 72, 73, 75 (4), 76 (2), 78 (2), 80 (4), 82, 84, 85. kg.: 4.0, 4.2 (2), 4.5, 4.8, 5.0 (4), 5.5, 5.7, 5.8 (2), 5.9, 6.0, 6.5 (3), 7.0.

2.3: 1 ♂: 104 cm., 13.5 kg. — 1 ♀: 88 cm., 11.5 kg.

3.3: 91 Ind. (22 ♂, 69 ♀). Av.: 99.4 (♂♂: 103.45, ♀♀: 98.13) cm., 11.81 (♂♂: 13.1, ♀♀: 11.4) kg. cm.: 88, 90 (3), 92, 93 (3), 94, 95 (8), 96 (4), 97 (5), 98 (13), 99 (11), 100 (11), 101 (4), 102 (3), 103 (4), 104 (11), 105, 106, 107, 108 (2), 109, 110, 113. kg.: 7.5, 8.0 (4), 9.0 (2), 9.5 (4), 10.0 (5), 10.5 (4), 11.0 (10), 11.5 (9), 12.0 (20), 12.5 (8), 13.0 (8), 13.5 (3), 14.0 (6), 14.5 (5), 15.0, 16.5.

4.3: 36 Ind. (2 ♂, 34 ♀). Av.: 97.44 (♂♂: 108.5, ♀♀: 96.8) cm., 11.67 (♂♂: 14.25, ♀♀: 11.51) kg. cm.: 83, 86, 90, 92, 93, 94 (3), 95 (4), 97 (7), 98 (2), 99 (2), 100 (6), 101 (2), 102, 104 (2), 107, 110. kg.: 9.0 (2), 9.5, 10.0 (4), 10.5, 11.0 (8), 11.5 (5), 12.0 (2), 12.5 (6), 13.0 (2), 13.5 (2), 14.0, 15.0, 15.5.

5.3: 1 ♂: 104 cm., 15.5 kg. — 1 ♀: 97 cm., 10.5 kg.

3.4: 29 Ind. (22 ♂, 7 ♀). Av.: 111.34 (♂♂: 111.77, ♀♀: 110.0) cm., 16.65 (♂♂: 16.78, ♀♀: 16.26) kg. cm.: 103, 105, 106 (2), 108 (4), 109 (3), 110 (7), 111, 113 (3), 116, 117, 118 (4), 125.

kg.: 12.5, 13.0, 14.0, 14.5 (3), 15.0 (3), 16.0 (4), 16.5, 17.0 (5), 17.5, 18.0 (5), 19.0, 19.5, 20.0, 23.0.

4.4: 12 Ind. (10 ♂, 2 ♀). Av.: 112.58 (♂♂: 113.1, ♀♀: 111.0) cm., 16.49 (♂♂: 16.59, ♀♀: 16.0) kg.  
cm.: 107, 109, 110 (2), 112, 113 (3), 115 (2), 116, 118.  
kg.: 13.0, 14.0 (2), 14.5, 16.0, 16.5, 17.5 (2), 18.0, 18.5, 19.0, 19.5.

5.4: 2 ♂: 113, 114 cm., 17.0, 17.5 kg.

3.5: 2 ♂: 120, 123 cm., 20.0, 23.0 kg.

Once spawned: 39 Ind.

5-year-olds:  
2.1+G1: 1 ♂: 78 cm., 5.8 kg.  
3.1+G1: 2 ♂: 48 and 61 cm., 1.2 and 2.6 kg.

7-year-olds:  
3.1+G2: 1 ♂: 93 cm., 9.5 kg., — 1 ♀: 87 cm., 8.5 kg.  
4.1+G1: 1 ♂: 80 cm., 6.2 kg.

3.2+G1: 4 Ind. (2 ♂, 2 ♀). Av.: 93.5 (♂♂: 93.0, ♀♀: 94.0) cm., 9.25 (♂♂: 9.0, ♀♀: 9.5) kg.  
cm.: 85, 92, 96, 101.  
kg.: 7.0, 9.0, 10.0, 11.0.

4.2+G1: 1 ♂: 81 cm., 7.5 kg.

2.3G1: 1 ♀: 104 cm., 15.0 kg.  
3.3G1: 1 ♀: 100 cm., 10.5 kg. — 1 ♀: 102 cm., 10.5 kg.

8-year-olds:  
4.1+G2: 1 ♀: 93 cm., 8.5 kg.

4.2+G1: 4 Ind. (1 ♂, 3 ♀). Av.: 90.5 (♂: 80.0, ♀♀: 94.0) cm., 9.25 (♂: 8.0, ♀♀: 9.67) kg.  
cm.: 80 (♂), 91 (2), 100.  
kg.: 8.0 (♂), 8.5, 9.0, 11.5.

3.3G1: 10 Ind. (3 ♂, 7 ♀). Av.: 106.1 (♂♂: 108.0, ♀♀: 105.3) cm., 14.5 (♂♂: 15.3, ♀♀: 14.1) kg.  
cm.: 99, 103, 104 (2), 106, 107, 109 (2), 110 (2),  
kg.: 11.5, 12.0, 12.5, 14.5, 15.0 (2), 15.5 (2), 16.0, 17.5.

9-year-olds:  
4.3G1: 7 Ind. (2 ♂, 5 ♀). Av.: 105.57 (♂♂: 102.5, ♀♀: 106.8) cm., 14.03 (♂♂: 13.0, ♀♀: 14.4) kg.  
cm.: 102 (2), 103 (2), 109, 110 (2).  
kg.: 11.0, 12.5, 13.0 (2), 15.0 (2), 18.5.

3.4G1: 3 ♂. Av.: 116.67 cm., 20.33 kg.  
cm.: 114, 118 (2).  
kg.: 18.0, 20.0, 23.0.

Twice spawned: 5 Ind.

9-year-olds:  
3.2+G1G1: 1 ♀: 107 cm., 13 kg.

10-year-olds:  
4.1+G2+G1: 1 ♂: 115 cm., 17.5 kg.

3.3G1G1: 3 Ind. (1 ♂, 2 ♀). Av.: 109.33 (♂: 104.0, ♀♀: 112.0) cm., 15.0 (♂: 14.5, ♀♀: 15.25) kg.  
cm.: 104, 110, 114.  
kg.: 14.5 (2), 16.0.

1938: 541 Ind.

2.1+: 9 Ind. (4 ♂, 5 ♀). Av.: 55.78 (♂♂: 54.75, ♀♀: 56.60) cm., 1.91 (♂♂: 2.0, ♀♀: 1.84) kg.  
cm.: 48, 52, 54, 55 (2), 58, 59, 60, 61.  
kg.: 1.0 (2), 1.5, 2.0 (3), 2.5 (2), 2.7.

3.1+: 339 Ind. (166 ♂, 142 ♀, 31 undeterm.). Av.: 54.33 (♂♂: 55.80, ♀♀: 53.36) cm., 1.71 (♂♂: 1.84, ♀♀: 1.64) kg.  
cm.: 43, 44 (2), 45 (6), 46 (7), 47 (15), 48 (9), 49 (6), 50 (44), 51 (21), 52 (25), 53 (19), 54 (17), 55 (40), 56 (16), 57 (15), 58 (15), 59 (16), 60 (31), 61 (11), 62 (6), 63 (6), 64 (4), 65 (3), 66, 68 (2), 69.  
kg.: 0.8 (2), 0.9 (3), 1.0 (61), 1.1 (12), 1.2 (13), 1.3 (24), 1.4 (13), 1.5 (37), 1.6 (11), 1.7 (11), 1.8 (9), 1.9 (7), 2.0 (64), 2.1 (4), 2.2 (16), 2.3 (4), 2.4 (5), 2.5 (17), 2.7 (3), 2.8 (3), 2.9 (2), 3.0 (11), 3.1, 3.5 (5), 3.9.

4.1+: 51 Ind. (35 ♂, 14 ♀, 2 undeterm.). Av.: 57.04 (♂♂: 57.69, ♀♀: 56.79) cm., 1.97 (♂♂: 2.04, ♀♀: 1.96) kg.  
cm.: 45, 48 (2), 49, 50 (3), 51 (5), 52 (3), 53 (2), 54, 55 (3), 57 (2), 58 (5), 59, 60 (4), 61 (4), 62 (5), 63 (5), 64, 65 (2), 67.  
kg.: 0.8, 1.0 (7), 1.2 (3), 1.4, 1.5 (6), 1.7 (2), 2.0 (12), 2.2, 2.4 (3), 2.5 (5), 2.6, 2.7, 2.8 (2), 3.0 (5), 3.6.

2.2+: 1 ♂: 74 cm., 3.2 kg.

3.2+: 61 Ind. (17 ♂, 43 ♀). Av.: 82.02 (♂♂: 83.29, ♀♀: 81.37), 6.54 (♂♂: 6.86, ♀♀: 6.36) kg.  
cm.: 71, 72, 73 (2), 74 (3), 75, 76, 77 (2), 78 (6), 79, 80 (6), 81 (3), 82 (4), 83 (4), 84 (4), 85 (5), 86, 87 (8), 88 (2), 89 (5), 93.  
kg.: 4.0 (3), 4.4, 4.5 (3), 4.8, 5.0 (6), 5.1, 5.4, 5.5 (4), 5.6, 6.0, 6.5 (8), 7.0 (9), 7.2 (2), 7.3, 7.5 (5), 7.7, 8.0 (5), 8.2, 8.3, 8.5 (5), 9.0.

4.2+: 4 Ind. (2 ♂, 2 ♀). Av.: 81.75 cm., 6.8 (♂♂: 8.0, ♀♀: 3.7 and 7.5) kg.  
cm.: 70, 83, 86, 88.  
kg.: 3.7, 7.5, 8.0 (2).

2.3: 7 Ind. (1 ♂, 6 ♀). Av.: 98.14 (♂♂: 98.0) cm., 11.41 (♀♀: 11.48) kg.  
cm.: 94 (3), 99 (♂), 101, 102, 103.  
kg.: 10.0, 10.4, 11.0, 11.0 (♂), 12.0 (2), 13.5.

3.3: 30 Ind. (11 ♂, 19 ♀). Av.: 99.2 (♂♂: 102.73, ♀♀: 97.16) cm., 11.65 (♂♂: 12.46, ♀♀: 11.18) kg.  
cm.: 86, 87, 88, 89, 95, 96 (3), 97 (2), 98, 99 (3), 100 (5), 101 (2), 102 (2), 105 (3), 107, 108, 109 (2).  
kg.: 7.5, 8.0 (3), 9.0 (2), 10.0, 11.0 (4), 11.5, 12.0 (3), 12.2, 12.5 (2), 12.7, 13.0 (5), 13.1, 13.5 (2), 14.0, 14.5, 15.0.

4.3: 9 Ind. (1 ♂, 8 ♀). Av.: 100.11 (♂♂: 99.25) cm., 11.94 (♀♀: 11.94) kg.  
cm.: 93, 95, 98, 99, 101, 107 (♂), 108.  
kg.: 11.0 (4), 12.0, 12.0 (♂), 13.0 (2), 13.5.

2.4: 1 Ind. (undeterm.) 118 cm., 20.0 kg.

3.4: 9 Ind. (8 ♂, 1 ♀). Av.: 113.56 (♂♂: 114.25) cm., 16.53 (♂♂: 17.13) kg.

cm.: 108 (♀), 110 (2), 114 (2), 115 (2), 117, 119.  
kg.: 11.0 (♀), 15.0, 15.5, 16.0, 17.0 (2), 19.0 (2), 19.3.

4.4: 2 ♂: 112 and 118 cm., 16.0 and 19.0 kg.

Once spawned: 14 Ind.

7-year-olds:  
3.1+G2: 1 ♂, 103 cm., 13.0 kg.

4.2+G1: 1 ♀, 85 cm., 7.0 kg.

8-year-olds:  
4.2+G1: 1 ♂: 88 cm., 8.0 kg.

3.3G1: 6 Ind. (6 ♀). Av.: 104.33 cm., 13.78 kg.  
cm.: 100, 103, 105 (3), 108.  
kg.: 11.0, 11.7, 14.0 (2), 16.0 (2).

9-year-olds:  
4.3G1: 4 Ind. (1 ♂, 3 ♀). Av.: 100.5 (♂♂: 104.3) cm., 11.88 (♀♀: 13.0) kg.  
cm.: 89 (♂), 100, 105, 108.  
kg.: 8.5 (♂), 12.0, 13.0, 14.0.

3.4G1: 1 ♂: 113 cm., 16.0 kg.

Twice spawned: 3 Ind.

10-year-olds:  
3.3G1G1: 2 ♀: 105 and 109 cm., 15.0 and 17.5 kg.

11-year-olds:  
4.3G1G1: 1 ♂: 103 cm., 13.5 kg.

Four times spawned: 1 Ind.

10-year-olds:  
5.1+G+G+G+G: 1 ♂: 97 cm., 10.0 kg.

1939: 2025 Ind.

2.1+: 111 Ind. Av.: 52.75 cm., 1.50 kg.  
cm.: 45 (3), 46 (3), 47 (2), 48 (3), 49 (6), 50 (23), 51 (7), 52 (11), 53 (10), 54 (11), 55 (5), 56 (5), 57 (5), 58 (7), 59 (2), 60 (6), 61, 62.  
kg.: 0.9, 1.0 (22), 1.1, 1.2 (13), 1.3 (9), 1.4 (8), 1.5 (16), 1.6 (5), 1.7 (5), 1.8 (6), 1.9 (4), 2.0 (8), 2.1, 2.2 (5), 2.4, 2.5 (3), 2.7 (2).

3.1+: 1342 Ind. Av.: 53.99 cm., 1.61 kg.  
cm.: 44 (7), 45 (12), 46 (17), 47 (22), 48 (26), 49 (58), 50 (175), 51 (92), 52 (149), 53 (104), 54 (111), 55 (97), 56 (72), 57 (73), 58 (90), 59 (83), 60 (93), 61 (29), 62 (21), 63 (7), 64, 65 (2), 69.  
kg.: 0.7 (2), 0.8 (3), 0.9 (8), 1.0 (208), 1.1 (28), 1.2 (108), 1.3 (91), 1.4 (66), 1.5 (208), 1.6 (66), 1.7 (92), 1.8 (62), 1.9 (45), 2.0 (158), 2.1 (25), 2.2 (41), 2.3 (18), 2.4 (13), 2.5 (60), 2.6 (9), 2.7 (11), 2.8 (6), 2.9 (5), 3.0 (8), 3.1.

4.1+: 189 Ind. Av.: 52.91 cm., 1.47 kg.  
cm.: 44, 46 (2), 47 (6), 48 (7), 49 (13), 50 (25), 51 (21), 52 (19), 53 (21), 54 (16), 55 (17), 56 (6), 57 (13), 58 (4), 59 (6), 60 (8), 61 (3), 62.  
kg.: 0.8, 1.0 (39), 1.1 (4), 1.2 (21), 1.3 (19), 1.4 (6), 1.5 (38), 1.6 (10), 1.7 (6), 1.8 (7), 1.9 (4), 2.0 (23), 2.1, 2.2 (4), 2.3 (3), 2.4, 2.5, 2.6.

5.1+: 2 Ind.: cm.: 45, 46. — kg.: 1.0 (2).

2.2+: 2 ♀: 81 and 87 cm., 5.0 and 8.0 kg.

3.2+: 216 Ind. (34 ♂, 182 ♀). Av.: 81.13 (♂♂: 84.59, ♀♀: 80.48) cm., 6.22 (♂♂: 7.02, ♀♀: 6.07) kg.  
cm.: 64, 65, 69 (3), 70 (2), 71 (5), 72 (2), 73 (2), 74 (8), 75 (23), 76 (6), 77 (3), 78 (15), 79 (12), 80 (24), 81 (14), 82 (14), 83 (4), 84 (14), 85 (11), 86 (6), 87 (7), 88 (7), 89 (8), 90 (16), 91, 92 (4), 93, 95 (2).  
kg.: 3.5 (6), 4.0 (15), 4.5 (21), 5.0 (24), 5.5 (20), 6.0 (32), 6.5 (22), 7.0 (21), 7.5 (10), 8.0 (18), 8.5 (17), 9.0 (9), 9.5.

4.2+: 16 Ind. (1 ♂, 15 ♀). Av.: 81.56 (♂♂: 81.13) cm., 6.07 (♀♀: 6.01) kg.  
cm.: 74, 76, 77, 80 (3), 81 (3), 82 (2), 83, 84, 87, 88 (♂), 89.  
kg.: 3.5, 4.4, 5.0 (3), 5.5, 5.7, 6.0 (4), 7.0, 7.0 (♂), 7.5, 8.0, 9.5.

2.3: 2 ♀: 102 and 104 cm., 13.5 and 14.5 kg.

3.3: 89 Ind. (26 ♂, 63 ♀). Av.: 101.27 (♂♂: 102.46, ♀♀: 100.78) cm., 12.49 (♂♂: 13.40, ♀♀: 12.12) kg.  
cm.: 87, 90, 93 (2), 94 (3), 95 (7), 96 (3), 97 (4), 98 (9), 99, 100 (12), 101 (5), 102 (4), 103 (3), 104 (7), 105 (7), 106 (2), 107 (7), 108 (5), 109, 110 (4), 111.  
kg.: 8.5 (2), 9.0 (3), 9.5, 10.0 (8), 10.5 (2), 11.0 (5), 11.5 (12), 12.0 (9), 12.5 (5), 13.0 (12), 13.5 (10), 14.0 (4), 14.5 (5), 15.0 (3), 15.5 (2), 16.0 (2), 16.5 (3), 17.0.

4.3: 1 ♀: 108 cm., 13.0 kg.

2.4: 2 ♂: 110 and 112 cm., 15.5 and 16.0 kg.

3.4: 17 Ind. (15 ♂, 2 ♀). Av.: 14.59 (♂♂: 112.18) cm., 16.24 (♂♂: 16.3) kg.  
cm.: 107 (♀), 108 (♀), 108 (3), 110 (3), 111 (2), 112 (2), 113, 114, 117, 118, 120.  
kg.: 13.5 (♀), 13.5, 15.0 (3), 16.0 (2), 16.5 (3), 17.0 (4), 18.0 (♀), 18.0, 18.5.

4.4: 1 ♀: 118 cm., 17.5 kg.

4.5: 1 ♂: 125 cm., 20.0 kg.

Once spawned: 27 Ind.

6-year-olds:  
3.1+G1: 5 Ind. (4 ♂, 1 ♀). Av.: 87.6 (♂♂: 90.5) cm., 8.08 (♂♂: 8.63) kg.  
cm.: 76 (♀), 87, 90 (2), 95.  
kg.: 5.9 (♀), 8.5 (3), 9.0.

7-year-olds:  
3.1+G2: 3 Ind. (2 ♂, 1 ♀). Av.: 105.67 cm., 14.33 kg.  
cm.: 102, 105 (♀), 110.  
kg.: 12.5, 15.0 (♀), 15.5.

4.1+G1: 1 ♀: 82 cm., 6.5 kg.

3.3G1: 2 ♂, 1 ♀: cm.: 100 (♀), 105, 110.  
kg.: 12.5, 13.0 (♀), 16.5.

8-year-olds:  
4.2+G1: 2 ♀: 88 and 95 cm., 7.0 and 10.0 kg.

3.3G1: 8 Ind. (1 ♂, 7 ♀). Av.: 105.63 (♂♂: 104.42) cm., 14.5 (♀♀: 14.14) kg.  
cm.: 100 (3), 105, 108 (2), 110, 114 (♂).  
kg.: 10.0, 13.5, 14.5 (2), 15.5 (3), 17.0 (♂).

9-year-olds:

**4.3G1:** 4 ♀; Av.: 107.0 cm., 12.5 kg.  
cm.: 105, 106, 108, 109.  
kg.: 11.5 (2), 13.0, 14.0.

**3.4G1:** 1 ♀: 114 cm., 15.0 kg.

*Twice spawned: 7 Ind.*

9-year-olds:

**2.3G1G1:** 1 ♀: 107 cm., 13.5 kg.

10-year-olds:

**3.3G1G1:** 5 ♀; Av.: 110.6 cm., 14.84 kg.  
cm.: 108, 110, 111 (2), 113.  
kg.: 12.2, 15.0, 15.5 (2), 16.0.

11-year-olds:

**4.3G1G1:** 1 ♀: 110 cm., 13.0 kg.

1940: 2497 Ind.

**2.1+**: 14 Ind. Av.: 48.57 cm., 1.39 kg.  
cm.: 45 (3), 47 (3), 49 (2), 50 (4), 51, 55.  
kg.: 1.0, 1.1, 1.2 (3), 1.3 (3), 1.4, 1.5, 1.7 (2), 1.8 (2).

**3.1+**: 298 Ind. Av.: 47.82 cm., 1.21 kg.  
cm.: 40 (2), 42 (2), 43 (13), 44 (24), 45 (64), 46 (7),  
47 (55), 48 (14), 49 (24), 50 (52), 51 (3), 52 (8),  
53 (2), 54 (4), 55 (19), 60 (5).  
kg.: 0.5 (3), 0.6 (5), 0.7 (10), 0.8 (16), 0.9 (18),  
1.0 (56), 1.1 (18), 1.2 (70), 1.3 (23), 1.4 (13),  
1.5 (29), 1.6 (6), 1.7 (7), 1.8 (8), 1.9 (2), 2.0 (6),  
2.1 (4), 2.2 (3), 2.3.

**4.1+**: 16 Ind. Av.: 47.68 cm., 1.23 kg.  
cm.: 43, 45 (5), 47 (2), 48 (3), 50 (3), 51, 55.  
kg.: 0.8, 0.9, 1.0 (2), 1.1 (2), 1.2 (5), 1.3, 1.5 (3), 1.9.

**2.2+**: 78 Ind. (12 ♂, 66 ♀). Av.: 74.90 (♂♂: 77.5, ♀♀: 74.42) cm., 4.73 (♂♂: 4.98, ♀♀: 4.68) kg.  
cm.: 65 (3), 67, 68, 69, 70 (11), 71 (2), 72 (2), 73 (2),  
74 (3), 75 (25), 76 (2), 77 (6), 78 (4), 79 (3),  
80 (6), 82 (3), 85 (3).  
kg.: 3.0 (2), 3.5 (8), 4.0 (13), 4.5 (23), 5.0 (16),  
5.5 (3), 6.0 (7), 6.5 (2), 7.0 (3), 7.5.

**3.2+**: 1194 Ind. (256 ♂, 938 ♀). Av.: 76.59 (♂♂: 78.88, ♀♀: 75.96) cm., 5.11 (♂♂: 5.63, ♀♀: 4.97) kg.  
cm.: 60 (5), 63, 64 (2), 65 (12), 66, 67 (4), 68 (3),  
69 (14), 70 (97), 71 (30), 72 (57), 73 (51),  
74 (30), 75 (285), 76 (46), 77 (41), 78 (116),  
79 (56), 80 (152), 81 (28), 82 (33), 83 (23),  
84 (14), 85 (71), 86 (4), 87 (3), 88 (3), 89,  
90 (3), 91.

kg.: 2.5 (4), 3.0 (22), 3.5 (66), 4.0 (146), 4.5 (214),  
5.0 (291), 5.5 (135), 6.0 (168), 6.5 (49), 7.0 (63),  
7.5 (17), 8.0 (10), 8.5 (5), 9.0 (2), 9.5, 10.0.

**4.2+**: 212 Ind. (36 ♂, 176 ♀). Av.: 76.79 (♂♂: 78.69, ♀♀: 76.40) cm., 5.07 (♂♂: 5.58, ♀♀: 4.97) kg.  
cm.: 60, 65 (3), 67, 69 (2), 70 (10), 71 (9), 72 (6),  
73 (8), 74 (6), 75 (51), 76 (13), 77 (11), 78 (20),  
79 (8), 80 (30), 81 (6), 82 (6), 83 (2), 84 (2),  
85 (14), 87, 89, 90.

kg.: 3.0 (2), 3.5 (9), 4.0 (30), 4.5 (41), 5.0 (61),  
5.5 (24), 6.0 (16), 6.5 (10), 7.0 (14), 7.5 (3),  
8.0 (2).

**5.2+**: 1 ♂: 75 cm., 4.2 kg. — 1 ♀: 80 cm., 5.0 kg.

**2.3:** 20 Ind. (3 ♂, 17 ♀). Av.: 98.9 (♂♂: 104.0, ♀♀: 98.0) cm., 11.99 (♂♂: 13.17, ♀♀: 11.78) kg.  
cm.: 89, 95 (4), 96, 97, 98, 99 (3), 100 (5), 103,  
104, 105, 109.  
kg.: 9.0, 10.0 (3), 10.5 (2), 11.0, 11.5, 12.0 (2),  
12.5 (2), 13.0 (6), 14.5, 16.0.

**3.3:** 410 Ind. (120 ♂, 290 ♀). Av.: 100.09 (♂♂: 103.71, ♀♀: 98.59) cm., 11.84 (♂♂: 12.86, ♀♀: 11.42) kg.  
cm.: 85, 87, 88 (3), 89 (2), 90 (9), 91 (3), 92 (5),  
93 (4), 94 (8), 95 (34), 96 (8), 97 (22), 98 (35),  
99 (46), 100 (78), 101 (13), 102 (20), 103 (19),  
104 (22), 105 (35), 106 (4), 107 (4), 108 (17),  
109 (3), 110 (12), 115, 116.  
kg.: 7.0 (4), 7.5, 8.0 (2), 8.5 (3), 9.0 (21), 9.5 (11),  
10.0 (38), 10.5 (17), 11.0 (67), 11.5 (29), 12.0  
(78), 12.5 (13), 13.0 (49), 13.5 (13), 14.0 (27),  
14.5 (9), 15.0 (15), 15.5 (3), 16.0 (6), 16.5,  
17.0 (2), 19.0.

**4.3:** 70 Ind. (13 ♂, 57 ♀). Av.: 99.74 (♂♂: 103.22, ♀♀: 98.96) cm., 11.59 (♂♂: 12.92, ♀♀: 11.29) kg.  
cm.: 90, 92, 93 (3), 95 (5), 96 (2), 97 (5), 98 (8),  
99 (9), 100 (15), 101 (2), 102 (3), 103 (3),  
104 (3), 105 (7), 109, 110, 111.  
kg.: 8.0 (2), 8.5, 9.0, 9.5 (5), 10.0 (9), 10.5 (5),  
11.0 (12), 11.5 (5), 12.0 (9), 12.5 (2), 13.0  
(8), 13.5, 14.0 (3), 14.5 (2), 15.0 (4), 17.0.

**5.3:** 1 ♂: 99 cm., 12.4 kg.

**2.4:** 1 ♂: 120 cm., 20.0 kg.  
**3.4:** 69 Ind. (65 ♂, 4 ♀). Av.: 114.99 (♂♂: 115.15, ♀♀: 112.25) cm., 17.0 (♂♂: 17.08, ♀♀: 15.63) kg.  
cm.: 101, 105, 108 (4), 110 (9), 111 (3), 112 (2),  
113 (2), 114 (2), 115 (22), 116 (3), 117 (2),  
118 (3), 120 (6), 121 (2), 122, 123 (2), 124,  
125 (3).  
kg.: 14.0, 15.0 (9), 15.5, 16.0 (7), 16.5 (11), 17.0 (17),  
17.5 (3), 18.0 (9), 18.5, 19.0 (6), 19.5 (2), 20.0 (2).

**4.4:** 5 Ind. (4 ♂, 1 ♀). Av.: 117.0 (♂♂: 117.5) cm., 16.6 (♂♂: 16.6) kg.  
cm.: 114, 115 (♀), 115, 116, 125.  
kg.: 15.5, 16.0, 16.5, 17.0 (♀), 18.0.

**3.5:** 2 ♂: 112 and 125 cm., both 18.0 kg.

*Once spawned: 96 Ind.*

5-year-olds:

**2.1+G1:** 1 ♂: 82 cm., 5.8 kg.  
**3.1+G1:** 11 Ind. (8 ♂, 3 ♀). Av.: 67.09 (♂♂: 66.0, ♀♀: 70.0) cm., 3.29 (♂♂: 3.25, ♀♀: 3.40) kg.  
cm.: 58, 65 (5), 70 (4), 75.  
kg.: 2.5, 2.7 (2), 2.9, 3.0 (3), 3.5, 3.9, 4.5 (2).

6-year-olds:

**3.1+G1:** 14 Ind. (4 ♂, 10 ♀). Av.: 77.64 (♂♂: 80.5, ♀♀: 76.5) cm., 5.19 (♂♂: 5.40, ♀♀: 5.11) kg.  
cm.: 70, 73, 75 (4), 77, 78, 80 (3), 82 (2), 85.  
kg.: 4.0, 4.3, 4.5, 4.9, 5.0 (2), 5.1, 5.2 (2), 5.5, 6.0 (4).

**4.1+G1:** 1 ♀: 75 cm., 4.9 kg.

**3.2+G1:** 1 ♀: 82 cm., 6.0 kg.

7-year-olds:

**3.1+G2:** 4 Ind. (3 ♂, 1 ♀). Av.: 101.25 (♂♂: 103.33) cm., 12.30 (♂♂: 12.73) kg.  
cm.: 95 (♀), 101, 104, 105.  
kg.: 11.0 (♀), 12.0, 12.2, 14.0.

**4.1+G1:** 2 ♂: 75 and 89 cm., 5.0 and 9.0 kg.

**3.2+G1:** 31 Ind. (2 ♂, 29 ♀). Av.: 94.87 (♀♀: 94.86) cm., 9.91 (♀♀: 9.84) kg.  
cm.: 81, 83, 84, 88 (2), 90 (3), 91, 93 (3), 94, 95 (4),  
97 (2), 98 (5), 99 (2), 101, 103, 104 (2), 109 (♂).  
kg.: 5.8, 6.0, 7.0, 7.5 (2), 7.8, 8.0, 8.5 (3), 9.0 (3),  
9.5, 10.0 (3), 10.5, 11.0 (5), 11.5 (2), 12.0 (3),  
12.5, 14.0 (♂), 15.0.

**3.3G+:** 2 ♀: 92 and 100 cm., 9.0 and 10.0 kg.

8-year-olds:

**3.1+G3:** 1 ♂: 110 cm., 15.0 kg.  
**4.1+G2:** 1 ♂: 110 cm., 14.0 kg.

**4.2+G1:** 4 ♀; Av.: 91.75 cm., 8.23 kg.  
cm.: 87, 92, 93, 95.  
kg.: 7.0 (2), 8.9, 10.0.

**3.3G1:** 18 Ind. (4 ♂, 14 ♀). Av.: 104.78 (♂♂: 114.5, ♀♀: 102.0) cm., 12.96 (♂♂: 15.5, ♀♀: 12.23) kg.  
cm.: 95, 98, 99 (2), 100 (3), 101, 104 (3), 105, 109,  
110 (2), 115 (2), 118.  
kg.: 10.0 (3), 11.5 (2), 12.0, 12.2, 12.5 (2), 13.0 (4),  
14.0, 15.0 (2), 16.0, 19.0.

9-year-olds:

**4.3G1:** 5 Ind. (1 ♂, 4 ♀). Av.: 107.4 (♀♀: 104.25) cm., 14.3 (♀♀: 13.25) kg.  
cm.: 100, 105 (2), 107, 120 (♂).  
kg.: 12.0, 12.5, 13.5, 15.0, 18.5 (♂).

*Twice spawned: 9 Ind.*

8-year-olds:

**3.3G+G+:** 1 ♂: 120 cm., 18.0 kg. — 1 ♀: 110 cm., 11.5 kg.

9-year-olds:

**3.2+G1G1:** 5 Ind. (1 ♂, 4 ♀). Av.: 105.0 (♀♀: 102.25) cm., 13.7 (♀♀: 12.63) kg.  
cm.: 100, 103 (3), 116 (♂).  
kg.: 10.5, 12.5, 13.0, 14.5, 18.0 (♂).

10-year-olds:

**3.3G1G1:** 2 ♂: 110 and 118 cm., 16.5 and 17.5 kg.

1941: 845 Ind.

**2.1+**: 5 Ind. Av.: 45.8 cm., 1.06 kg.  
cm.: 42, 44, 46, 47, 50.  
kg.: 0.8, 1.0 (3), 1.5.

**3.1+**: 109 Ind. Av.: 46.15 cm., 1.13 kg.  
cm.: 40 (17), 42 (2), 43 (4), 44, 45 (42), 46 (3), 47 (6),  
48 (3), 49 (4), 50 (9), 52 (3), 53 (2), 56 (6),  
58, 60.  
kg.: 0.7 (8), 0.8 (13), 0.9 (13), 1.0 (27), 1.1 (4),  
1.2 (13), 1.3 (8), 1.4, 1.5 (8), 1.6 (4), 1.7 (3),  
1.8 (3), 2.0 (2), 2.1 (2).

**4.1+**: 11 Ind. Av.: 48.27 cm., 1.19 kg.  
cm.: 43, 45 (4), 47 (2), 50, 51, 55, 58.  
kg.: 0.8 (2), 0.9 (2), 1.0, 1.2 (2), 1.4, 1.5, 1.6, 1.8.

**5.1+**: 1 Ind. 55 cm., 1.3 kg.  
**2.2+**: 16 Ind. (4 ♂, 12 ♀). Av.: 72.06 (♂♂: 75.25, ♀♀: 71.0) cm., 4.12 (♂♂: 4.73, ♀♀: 3.92) kg.  
cm.: 67, 70 (7), 71 (2), 73, 75 (4), 81.  
kg.: 3.2, 3.5 (4), 3.6, 3.7, 4.0 (2), 4.5 (4), 4.8, 5.1, 5.5.

**3.2+**: 201 Ind. (76 ♂, 125 ♀). Av.: 72.22 (♂♂: 73.55, ♀♀: 71.42) cm., 4.23 (♂♂: 4.61, ♀♀: 4.0) kg.  
cm.: 52, 57, 60 (2), 63 (3), 64 (3), 65 (7), 66 (2),  
67 (6), 68 (6), 69 (7), 70 (46), 71 (14), 72 (17),  
73 (11), 74 (5), 75 (32), 76 (4), 77 (3), 78 (4),  
79, 80 (12), 81, 82, 83, 84 (2), 85 (3).  
kg.: 2.5 (5), 3.0 (30), 3.5 (38), 4.0 (44), 4.5 (27),  
5.0 (25), 5.5 (13), 6.0 (9), 6.5 (4), 7.0 (4), 7.5 (2).

**4.2+**: 22 Ind. (7 ♂, 15 ♀). Av.: 74.27 (♂♂: 73.43, ♀♀: 74.67) cm., 4.43 (♂♂: 4.56, ♀♀: 4.14) kg.  
cm.: 66, 69, 70, 71, 72 (4), 73, 75 (7), 76, 78, 83, 84.  
kg.: 3.0 (2), 3.5, 3.9, 4.0 (7), 4.3, 4.5 (2), 4.6, 5.0 (3),  
5.1, 5.5, 6.0, 6.5.

**2.3:** 41 Ind. (7 ♂, 34 ♀). Av.: 96.9 (♂♂: 101.0, ♀♀: 96.06) cm., 10.67 (♂♂: 12.86, ♀♀: 10.22) kg.  
cm.: 81, 90 (3), 91 (2), 92, 93, 94, 95 (12), 96, 97 (3),  
99 (4), 100 (5), 101, 103 (3), 108, 110 (2).  
kg.: 6.5, 8.0 (2), 8.5, 9.0 (7), 9.5 (3), 10.0 (6),  
10.5 (3), 11.0 (2), 11.5 (5), 12.0 (2), 12.5,  
13.0 (5), 13.5, 14.0, 15.0.

**3.3:** 333 Ind. (103 ♂, 230 ♀). Av.: 98.23 (♂♂: 102.64, ♀♀: 96.60) cm., 11.21 (♂♂: 12.76, ♀♀: 10.64) kg.  
cm.: 75, 80 (2), 85 (4), 86 (2), 87, 88, 89 (2), 90 (19),  
91 (9), 92 (9), 93 (7), 94 (5), 95 (72), 96 (12),  
97 (19), 98 (23), 99 (36), 100 (63), 101 (11),  
102 (16), 103 (6), 104 (10), 105 (24), 106 (4),  
107 (3), 108 (3), 109 (6), 110 (8), 111 (2), 114,  
115 (2).  
kg.: 7.0 (6), 7.5 (2), 8.0 (16), 8.5 (8), 9.0 (29),  
9.5 (25), 10.0 (45), 10.5 (21), 11.0 (55), 11.5 (32),  
12.0 (40), 12.5 (21), 13.0 (24), 13.5 (20), 14.0  
(17), 14.5 (5), 15.0 (10), 15.5 (2), 16.0, 16.5 (2),  
17.0 (2).

**4.3:** 27 Ind. (10 ♂, 17 ♀). Av.: 98.37 (♂♂: 103.0, ♀♀: 96.65) cm., 11.63 (♂♂: 12.19, ♀♀: 11.30) kg.  
cm.: 83, 90 (4), 93, 94, 95, 96 (3), 97, 98, 99, 100 (5),  
101, 105 (3), 106, 108, 109, 110.  
kg.: 6.4, 8.5 (3), 8.7, 10.0, 10.5, 11.0 (4), 11.5 (2),  
12.0 (4), 12.5, 13.0, 13.5 (2), 14.0 (2), 14.4,  
15.0, 15.5.

**3.4:** 22 Ind. (18 ♂, 4 ♀). Av.: 115.27 (♂♂: 115.89, ♀♀: 112.5) cm., 17.16 (♂♂: 17.28, ♀♀: 16.63) kg.  
cm.: 109, 111 (3), 114 (3), 115 (10), 119, 120 (3), 123.  
kg.: 13.0, 13.5 (2), 15.0 (2), 16.0 (2), 16.5, 17.0 (2),  
17.5, 18.0 (4), 18.5, 19.0 (4), 20.0, 21.0.

**4.4:** 4 Ind. (3 ♂, 1 ♀). Av.: 115.25 (♂♂: 117.67) cm., 16.75 (♂♂: 17.33) kg.  
cm.: 108 (♀), 115, 118, 120.  
kg.: 15.0 (♀), 16.0, 18.0 (2).

**3.5:** 3 ♂: cm.: 123, 125 (2).  
kg.: 17.0, 19.0 (2).



Once spawned: 52 Ind.
6-year-olds:
3.1+G1: 18 Ind. (11 ♂, 7 ♀). Av.: 82-89 (♂♂: 84-18, ♀♀: 80-86) cm., 6-62 (♂♂: 7-22, ♀♀: 5-67) kg.
cm.: 75 (2), 76, 80 (4), 81 (3), 84, 85 (2), 86, 88, 90, 91, 94.
kg.: 4-5, 4-7, 4-9, 5-0 (2), 5-5 (2), 5-6, 6-5 (2), 7-0 (2), 7-5, 7-9, 8-0, 8-5, 9-5, 10-0.
7-year-olds:
3.1+G2: 3 ♂: cm.: 98, 103, 105. Av.: 102-0.
kg.: 12-0, 13-5, 15-0. Av.: 13-5.
4.1+G1: 1 ♂: 70 cm., 4-7 kg. — 1 ♀: 70 cm., 3-9 kg.
3.2+G1: 13 Ind. (1 ♂, 12 ♀). Av.: 95-85 (♀♀: 96-42) cm., 10-84 (♀♀: 10-58) kg.
cm.: 86, 89, 89 (♂), 90, 95 (2), 98 (4), 100 (2), 110.
kg.: 4-9, 7-0, 7-5, 7-5 (♂), 8-5, 10-5, 11-0, 12-0 (2), 13-0 (2), 13-5, 14-0.
2.3G1: 2 ♂: 110 and 115 cm., 16-0 and 17-0 kg.
3.3G1: 1 ♂: 104 cm., 11-0 kg. — 1 ♀: 106 cm., 13-5 kg.
8-year-olds:
3.3G1: 12 Ind. (4 ♂, 8 ♀). Av.: 112-5 (♂♂: 115-0, ♀♀: 111-25) cm., 15-46 (♂♂: 16-38, ♀♀: 15-0) kg.
cm.: 110 (6), 114, 115 (4), 116.
kg.: 13-5 (2), 14-5, 15-0 (3), 16-0 (3), 16-5, 17-0, 17-5.
Twice spawned: 2 Ind.
9-year-olds:
3.2+G1G1: 1 ♀: 100 cm., 11-5 kg.
10-year-olds:
3.3G1G1: 1 ♂: 120 cm., 17-5 kg.
1942. 2248 Ind.
3+: 1 Ind. 45 cm., 0-6 kg.
3.1+: 18 Ind. Av.: 49-11 cm., 1-24 kg.
cm.: 39, 40, 43, 45 (5), 46, 49, 50, 54, 55 (3), 57, 58 (2).
kg.: 0-7 (4), 0-8, 1-0 (5), 1-3 (2), 1-7, 1-8 (2), 1-9 (2), 2-0.
4.1+: 4 Ind. Av.: 59-5 cm., 2-1 kg.
cm.: 55, 58, 60, 65.
kg.: 1-7, 2-0, 2-2, 2-5.
2.2+: 44 Ind. (27 ♂, 17 ♀). Av.: 69-05 (♂♂: 69-93, ♀♀: 67-65) cm., 3-35 (♂♂: 3-4, ♀♀: 3-28) kg.
cm.: 58 (2), 60 (3), 61, 63 (3), 64 (2), 65 (10), 66, 68, 69, 70 (5), 72, 73, 74, 75 (3), 76 (2), 78 (2), 80 (3), 84, 85.
kg.: 1-9, 2-0 (2), 2-3, 2-4, 2-5 (8), 2-6 (2), 2-8, 3-0 (7), 3-3 (2), 3-4, 3-5 (3), 4-0 (6), 4-1 (3), 4-5 (2), 5-0, 5-2, 5-8, 6-0.
3.2+: 595 Ind. (171 ♂, 282 ♀, 142 undeterm.). Av.: 70-26 (♂♂: 72-17, ♀♀: 70-87) cm., 3-56 (♂♂: 3-85, ♀♀: 3-60) kg.
cm.: 50, 54 (2), 55 (8), 57, 58 (4), 59 (9), 60 (53), 61 (3), 62 (6), 63 (8), 64 (5), 65 (93), 66 (3), 67 (15), 68 (21), 69 (12), 70 (101), 71 (10), 72 (19), 73 (10), 74 (18), 75 (69), 76 (3), 77 (5),

78 (12), 79 (10), 80 (70), 81 (3), 82 (5), 83 (7), 84 (3), 85 (4), 86 (2).
kg.: 1-5 (3), 2-0 (38), 2-5 (72), 3-0 (128), 3-5 (109), 4-0 (119), 4-5 (60), 5-0 (41), 5-5 (18), 6-0 (7), 6-5 (2), 7-0 (2), 7-5 (2), 8-0 (2), 8-5 (2), 9-0 (2), 9-5 (2), 10-0 (2), 10-5 (2), 11-0 (2), 11-5 (2), 12-0 (2), 12-5 (2), 13-0 (2), 13-5 (2), 14-0 (2), 14-5 (2), 15-0 (2), 15-5 (2), 16-0 (2), 16-5 (2), 17-0 (2), 17-5 (2), 18-0 (2), 18-5 (2), 19-0 (2), 19-5 (2), 20-0 (2).
4.2+: 51 Ind. (9 ♂, 42 ♀). Av.: 69-92 (♂♂: 66-44, ♀♀: 70-67) cm., 3-48 (♂♂: 3-11, ♀♀: 3-56) kg.
cm.: 58 (2), 59, 60 (3), 61, 62, 65 (12), 68, 69, 70 (8), 71, 72 (2), 74, 75 (10), 78, 80 (2), 81, 83, 85 (2), 87, 88, 89, 90 (4), 92 (2), 93 (2), 94 (2), 95 (2), 96 (2), 97 (2), 98 (2), 99 (2), 100 (2), 101 (2), 102 (2), 103 (2), 104 (2), 105 (2), 106 (2), 107 (2), 108 (2), 109 (2), 110 (2), 111 (2), 112 (2), 113 (2), 114 (2), 115 (2), 116 (2), 117 (2), 118 (2), 119 (2), 120 (2), 121 (2), 122 (2), 123 (2), 124 (2), 125 (2), 126 (2), 127 (2), 128 (2), 129 (2), 130 (2), 131 (2), 132 (2), 133 (2), 134 (2), 135 (2), 136 (2), 137 (2), 138 (2), 139 (2), 140 (2), 141 (2), 142 (2), 143 (2), 144 (2), 145 (2), 146 (2), 147 (2), 148 (2), 149 (2), 150 (2).
kg.: 2-0, 2-5 (9), 3-0 (13), 3-5 (8), 4-0 (13), 4-5 (4), 5-0, 5-5, 6-0.
2.3: 150 Ind. (38 ♂, 112 ♀). Av.: 92-91 (♂♂: 97-39, ♀♀: 91-39) cm., 8-85 (♂♂: 10-25, ♀♀: 8-37) kg.
cm.: 75, 80 (2), 83 (3), 84 (2), 85 (15), 86 (2), 87 (9), 88 (4), 89 (5), 90 (16), 91, 92 (5), 93 (6), 94 (9), 95 (27), 96 (2), 97 (9), 98 (8), 99 (4), 100 (8), 101, 102, 103, 104 (5), 105 (2), 108, 109.
kg.: 4-5, 5-0, 5-5 (3), 5-8, 6-0 (11), 6-2 (2), 6-5 (6), 7-0 (13), 7-5 (11), 8-0 (9), 8-5 (6), 9-0 (17), 9-5 (13), 10-0 (27), 10-5 (9), 11-0 (6), 11-5 (2), 12-0 (7), 12-5 (2), 13-0 (2), 13-5, 14-5.
3.3: 1150 Ind. (265 ♂, 885 ♀). Av.: 90-71 (♂♂: 94-26, ♀♀: 89-65) cm., 8-26 (♂♂: 9-33, ♀♀: 7-94) kg.
cm.: 70, 73, 74, 75 (11), 77, 78 (3), 79 (2), 80 (43), 81 (6), 82 (29), 83 (29), 84 (31), 85 (138), 86 (27), 87 (71), 88 (36), 89 (65), 90 (155), 91 (17), 92 (23), 93 (27), 94 (44), 95 (156), 96 (17), 97 (35), 98 (39), 99 (34), 100 (58), 101 (7), 102 (4), 103 (13), 104 (9), 105 (7), 107 (2), 108 (5), 109, 110, 115.
kg.: 4-0 (2), 4-5 (3), 5-0 (30), 5-5 (44), 6-0 (111), 6-5 (75), 7-0 (111), 7-5 (74), 8-0 (153), 8-5 (77), 9-0 (139), 9-5 (70), 10-0 (22), 10-5 (45), 11-0 (37), 11-5 (10), 12-0 (22), 12-5 (8), 13-0 (13), 13-5, 14-0 (2), 14-5.
4.3: 84 Ind. (21 ♂, 63 ♀). Av.: 90-45 (♂♂: 93-43, ♀♀: 89-46) cm., 8-16 (♂♂: 8-48, ♀♀: 8-05) kg.
cm.: 80 (4), 83 (4), 84 (3), 85 (10), 86 (3), 87 (5), 89, 90 (14), 91 (4), 93 (7), 95 (10), 96 (2), 97 (3), 98 (4), 99 (2), 100 (2).
kg.: 5-0 (3), 5-5 (2), 6-0 (6), 6-5 (6), 7-0 (10), 7-5 (6), 8-0 (8), 8-5 (9), 9-0 (15), 9-5 (6), 10-0 (7), 10-5 (2), 11-0 (2), 11-5, 12-0.
2.4: 19 Ind. (14 ♂, 5 ♀). Av.: 111-32 (♂♂: 113-29, ♀♀: 105-8) cm., 15-47 (♂♂: 16-10, ♀♀: 13-56) kg.
cm.: 100, 103, 108 (3), 110 (5), 112, 113, 114 (2), 115, 116, 118 (3).
kg.: 13-0 (2), 13-5 (3), 14-0, 14-5, 15-0 (2), 15-5, 16-0, 16-5, 17-0 (2), 17-5 (5).
3.4: 87 Ind. (77 ♂, 10 ♀). Av.: 113-32 (♂♂: 113-74, ♀♀: 110-10) cm., 16-05 (♂♂: 16-22, ♀♀: 14-70) kg.
cm.: 99, 101, 104, 105, 106, 107, 108 (5), 109 (2), 110 (14), 111 (4), 112 (7), 113 (4), 114 (5), 115 (17), 116 (2), 117, 118 (10), 119, 120 (7), 123 (2).
kg.: 11-5 (2), 12-0 (2), 12-5 (2), 13-0 (2), 13-5, 14-0 (5), 14-5 (5), 15-0 (10), 15-5 (6), 16-0 (11), 16-5 (6), 17-0 (9), 17-5 (8), 18-0 (10), 18-5 (5), 19-0, 19-5, 20-0.
4.4: 3 ♂: cm.: 115, 120, 123. Av.: 119-33 cm.
kg.: 16-5, 20-0, 21-0. Av.: 19-17 kg.

Once spawned: 40 Ind.
5-year-olds:
3.1+G1: 4 Ind. (3 ♂, 1 ♀). Av.: 63-75 (♂♂: 60-0) cm., 2-45 (♂♂: 2-17) kg.
cm.: 55, 60, 65, 75 (♀).
kg.: 2-0, 2-1, 2-4, 3-3 (♀).
6-year-olds:
2.1+G2: 1 ♂: 100 cm., 12-0 kg. — 1 ♀: 80 cm., 5-5 kg.
3.1+G1: 8 Ind. (2 ♂, 6 ♀). Av.: 78-25 (♂♂: 78-0) cm., 4-74 (♀♀: 4-77) kg.
cm.: 70, 73, 78 (♂), 80 (3), 80 (♂), 85.
kg.: 3-0, 3-3, 4-0 (♂), 4-3, 5-0, 5-3 (♂), 6-5 (2).
3.2+G1: 2 ♀: 85 and 90 cm., 6-5 and 8-0 kg.
7-year-olds:
3.1+G2: 11 Ind. (10 ♂, 1 ♀). Av.: 112-3 (♂♂: 113-67) cm., 12-55 (♂♂: 12-65) kg.
cm.: 96, 99 (2), 100, 100 (♀), 101, 103, 104 (2), 105, 112.
kg.: 10-0, 11-5, 11-5 (♀), 12-5 (2), 13-0 (3), 13-5 (2), 14-0.
3.2+G1: 3 ♀: cm.: 85-97 and 98. Av.: 93-33 cm.
kg.: 8-0, 10-0 (2). Av.: 9-33 kg.
3.3G1: 7 Ind. (5 ♂, 2 ♀). Av.: 102-29 (♂♂: 103-2) cm., 10-86 (♂♂: 11-40) kg.
cm.: 90 (♀), 95, 103 (2), 105, 110, 110 (♀).
kg.: 6-0 (♀), 9-5, 10-5, 11-5, 12-0, 13-0 (♀), 13-5.
8-year-olds:
4.2+G1: 1 ♀: 90 cm., 7-0 kg.
3.3G1: 2 ♀: 100 and 110 cm., 11-5 and 16-5 kg.
Twice spawned: 2 Ind.
8-year-olds:
3.2+G1G1: 1 ♂: 95 cm., 9-0 kg.
10-year-olds:
3.3G1G1: 1 ♀: 112 cm., 12-0 kg.
1943: 1812 Ind.
2.1+: 1 Ind. 45 cm., 1-0 kg.
3.1+: 106 Ind. Av.: 46-38 cm., 1-12 kg.
cm.: 35, 37, 38 (5), 40 (11), 41 (4), 42 (3), 43 (6), 45 (23), 46 (6), 47 (3), 48 (7), 49 (6), 50 (13), 51 (3), 52 (3), 54, 55 (4), 56 (2), 57 (2), 60, 65.
kg.: 0-5 (2), 0-6 (2), 0-7 (5), 0-8 (7), 0-9 (10), 1-0 (35), 1-1, 1-2 (14), 1-3 (5), 1-4 (4), 1-5 (14), 1-6, 1-7, 1-8 (2), 1-9, 2-0 (2).
4.1+: 14 Ind. Av.: 48-70 cm., 1-19 kg.
cm.: 37, 38, 42, 45 (2), 46 (2), 48, 49, 52 (2), 55, 58, 60.
kg.: 0-5, 0-7, 0-9 (2), 1-0 (4), 1-3 (2), 1-5, 1-6, 2-0 (2).
5.1+: 1 Ind.: 55 cm., 1-5 kg.
2.2+: 6 Ind. (4 ♂, 2 ♀). Av.: 67-67 (♂♂: 68-0) cm., 3-67 (♂♂: 3-88) kg.
cm.: 65 (2), 65 (♀), 69 (♀), 70, 72.
kg.: 3-0 (♀), 3-5 (2), 3-5 (♀), 4-0, 4-5.

3.2+: 109 Ind. (43 ♂, 51 ♀, 15 undeterm.). Av.: 67-21 (♂♂: 68-16, ♀♀: 67-63) cm., 3-24 (♂♂: 3-17, ♀♀: 3-36) kg.
cm.: 55 (2), 57, 58, 59 (2), 60 (18), 61, 63 (2), 64 (2), 65 (16), 66, 67 (5), 68 (2), 69 (9), 70 (23), 72 (6), 73 (2), 74 (2), 75 (12), 76, 78.
kg.: 2-0 (16), 2-5 (17), 3-0 (24), 3-5 (15), 4-0 (26), 4-5 (10), 5-0.
4.2+: 8 Ind. (all ♀): cm.: 60, 65 (4), 70 (2), 72. Av.: 66-5 cm.
kg.: 2-5, 3-0 (4), 3-5, 4-0, 4-5. Av.: 3-31 kg.
2.3+: 73 Ind. (22 ♂, 51 ♀). Av.: 85-84 (♂♂: 89-55, ♀♀: 84-24) cm., 7-26 (♂♂: 8-18, ♀♀: 6-86) kg.
cm.: 75 (2), 76, 78 (3), 79 (5), 80 (7), 82 (2), 83, 84 (4), 85 (12), 86 (4), 87, 88, 89 (10), 90 (8), 91 (3), 92 (4), 93 (2), 95, 98, 99.
kg.: 4-5 (2), 5-0 (8), 5-5 (2), 6-0 (9), 6-5 (3), 7-0 (9), 7-5 (7), 8-0 (17), 8-5 (6), 9-0 (5), 9-5 (3), 10-0, 10-5.
3.3: 1205 Ind. (259 ♂, 946 ♀). Av.: 84-71 (♂♂: 87-64, ♀♀: 83-9) cm., 6-94 (♂♂: 7-69, ♀♀: 6-73) kg.
cm.: 70 (2), 73 (3), 74 (10), 75 (85), 76 (25), 77 (19), 78 (36), 79 (56), 80 (150), 81 (15), 82 (52), 83 (31), 84 (57), 85 (215), 86 (37), 87 (45), 88 (35), 89 (65), 90 (104), 91 (9), 92 (29), 93 (5), 94 (6), 95 (60), 96 (4), 97 (4), 98 (10), 99 (15), 100 (16), 101 (3), 103, 105.
kg.: 4-0 (19), 4-5 (25), 5-0 (154), 5-5 (68), 6-0 (204), 6-5 (77), 7-0 (208), 7-5 (79), 8-0 (143), 8-5 (47), 9-0 (93), 9-5 (25), 10-0 (40), 10-5 (7), 11-0 (8), 11-5, 12-0 (2).
4.3: 53 Ind. (9 ♂, 44 ♀). Av.: 83-45 (♂♂: 85-56, ♀♀: 83-02) cm., 6-54 (♂♂: 7-22, ♀♀: 6-40) kg.
cm.: 72 (2), 75 (5), 76, 77, 78, 79 (3), 80 (5), 81, 82 (2), 83 (2), 84 (2), 85 (13), 86 (5), 88, 89, 90 (6), 95, 105.
kg.: 4-0 (4), 4-5 (4), 5-0 (4), 5-5 (5), 6-0 (9), 6-5 (3), 7-0 (5), 7-5 (7), 8-0 (7), 8-5, 9-0 (2), 10-0, 11-5.
2.4: 40 Ind. (21 ♂, 19 ♀). Av.: 102-88 (♂♂: 104-38, ♀♀: 101-21) cm., 11-84 (♂♂: 12-17, ♀♀: 11-47) kg.
cm.: 94, 95 (2), 98 (2), 99 (3), 100 (5), 101 (5), 102 (4), 103 (3), 105 (5), 106 (3), 109, 110 (4), 112 (2).
kg.: 8-0, 9-0, 10-0 (4), 10-5 (2), 11-0 (7), 11-5 (2), 12-0 (10), 12-5 (2), 13-0 (5), 14-0 (4), 14-5, 15-0.
3.4: 145 Ind. (68 ♂, 77 ♀). Av.: 102-52 (♂♂: 104-09, ♀♀: 101-14) cm., 11-67 (♂♂: 12-39, ♀♀: 11-03) kg.
cm.: 90, 91, 92 (2), 93, 95 (12), 96 (2), 98 (6), 99 (3), 100 (43), 101 (5), 102 (9), 103 (7), 104 (6), 105 (15), 106, 107 (2), 108, 109 (6), 110 (9), 111 (5), 112 (2), 113 (2), 115 (5), 118.
kg.: 8-5, 9-0 (16), 9-5 (3), 10-0 (23), 10-5 (8), 11-0 (19), 11-5 (10), 12-0 (21), 12-5 (3), 13-0 (15), 13-5 (3), 14-0 (6), 14-5 (2), 15-0 (5), 15-5 (6), 16-0 (2), 17-0, 17-5.
4.4: 6 Ind. (5 ♂, 1 ♀). Av.: 104-67 (♂♂: 105-8) cm., 12-67 (♂♂: 13-1) kg.
cm.: 95, 99 (♀), 105, 109, 110 (2).
kg.: 9-0, 10-5 (♀), 13-0, 13-5, 14-0, 16-0.
3.5: 1 ♂: 120 cm., 18-0 kg.

